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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	1859.029USC12 (KRU0022-WO-US-T13)
First Named Inventor	Marc Krüger
Title	PORTION CAPSULE HAVING AN IDENTIFIER
Express Mail Label No.	Via EFS at USPTO.GOV on December 10, 2021

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☐ **Fee Transmittal Form** (PTO/SB/17 or equivalent)
2. ☐ **Applicant asserts small entity status.** See 37 CFR 1.27
3. ☐ **Applicant certifies micro entity status.** See 37 CFR 1.29. Applicant must attach form PTO/SB/15A or B or equivalent.
4. ☑ **Specification** [*Total Pages* 20] Both the claims and abstract must start on a new page. *(See MPEP § 608.01(a) for information on the preferred arrangement)*
5. ☑ **Drawing(s)** (35 U.S.C. 113) [*Total Sheets* 12]
6. **Inventor's Oath or Declaration** [*Total Pages* 1] *(including substitute statements under 37 CFR 1.64 and assignments serving as an oath or declaration under 37 CFR 1.63(e))*
   a. ☐ Newly executed (original or copy)
   b. ☑ A copy from a prior application (37 CFR 1.63(d))
7. ☑ **Application Data Sheet** ** See note below.* See 37 CFR 1.76 (PTO/AIA/14 or equivalent)
8. **CD-ROM or CD-R** in duplicate, large table, or Computer Program (*Appendix*)
   ☐ Landscape Table on CD
9. **Nucleotide and/or Amino Acid Sequence Submission** (*if applicable, items a. – c. are required*)
   a. ☐ Computer Readable Form (CRF)
   b. ☐ Specification Sequence Listing on:
      i. ☐ CD-ROM or CD-R (2 copies); or
      ii. ☐ Paper
   c. ☐ Statements verifying identity of above copies

ADDRESS TO: **Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**

ACCOMPANYING APPLICATION PAPERS

10. ☐ **Assignment Papers** (cover sheet & document(s))
    Name of Assignee _____
11. ☐ **37 CFR 3.73(c) Statement** (*when there is an assignee*) ☑ **Power of Attorney**
12. ☐ **English Translation Document** (*if applicable*)
13. ☐ **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
    ☐ Copies of citations attached
14. ☑ **Preliminary Amendment**
15. ☐ **Return Receipt Postcard** (*MPEP § 503*) (*Should be specifically itemized*)
16. ☑ **Certified Copy of Priority Document(s)** (*if foreign priority is claimed*)
17. ☐ **Nonpublication Request** Under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent.
18. ☑ **Other:** USPTO is hereby authorized to charge any additional fees required under 37 C.F.R. Sec. 1.16; 1.17 and 1.21 to Deposit Acct. No. 50-1097 - Track One Request

Note*: (1) Benefit claims under 37 CFR 1.78 and foreign priority claims under 1.55 **must be included in an Application Data Sheet (ADS).
(2) For applications filed under 35 U.S.C. 111, the application must contain an ADS specifying the applicant if the applicant is an assignee, person to whom the inventor is under an obligation to assign, or person who otherwise shows sufficient proprietary interest in the matter. See 37 CFR 1.46(b).

19. CORRESPONDENCE ADDRESS

☑ The address associated with Customer Number: 25215 **OR** ☐ Correspondence address below

Name					
Address					
City		State		Zip Code	
Country		Telephone		Email	

Signature	/Paul J. Palinski/	Date	December 10, 2021
Name (Print/Type)	Paul J. Palinski	Registration No. (Attorney/Agent)	71080

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Doc Code: TRACK1.REQ
Document Description: TrackOne Request

PTO/AIA/424 (04-14)

CERTIFICATION AND REQUEST FOR PRIORITIZED EXAMINATION UNDER 37 CFR 1.102(e) (Page 1 of 1)

First Named Inventor:	Marc Krüger	Nonprovisional Application Number (if known):	
Title of Invention:	PORTION CAPSULE HAVING AN IDENTIFIER		

APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS PRIORITIZED EXAMINATION FOR THE ABOVE-IDENTIFIED APPLICATION.

1. The processing fee set forth in 37 CFR 1.17(i)(1) and the prioritized examination fee set forth in 37 CFR 1.17(c) have been filed with the request. The publication fee requirement is met because that fee, set forth in 37 CFR 1.18(d), is currently $0. The basic filing fee, search fee, and examination fee are filed with the request or have been already been paid. I understand that any required excess claims fees or application size fee must be paid for the application.

2. I understand that the application may not contain, or be amended to contain, more than four independent claims, more than thirty total claims, or any multiple dependent claims, and that any request for an extension of time will cause an outstanding Track I request to be dismissed.

3. The applicable box is checked below:

I. ☑ Original Application (Track One) - Prioritized Examination under § 1.102(e)(1)

i. (a) The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a). This certification and request is being filed with the utility application via EFS-Web.

---OR---

(b) The application is an original nonprovisional plant application filed under 35 U.S.C. 111(a). This certification and request is being filed with the plant application in paper.

ii. An executed inventor's oath or declaration under 37 CFR 1.63 or 37 CFR 1.64 for each inventor, **or** the application data sheet meeting the conditions specified in 37 CFR 1.53(f)(3)(i) is filed with the application.

II. ☐ Request for Continued Examination - Prioritized Examination under § 1.102(e)(2)

i. A request for continued examination has been filed with, or prior to, this form.
ii. If the application is a utility application, this certification and request is being filed via EFS-Web.
iii. The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a), or is a national stage entry under 35 U.S.C. 371.
iv. This certification and request is being filed prior to the mailing of a first Office action responsive to the request for continued examination.
v. No prior request for continued examination has been granted prioritized examination status under 37 CFR 1.102(e)(2).

Signature /Paul J. Palinski/	Date December 10, 2021
Name (Print/Typed) Paul J. Palinski	Practitioner Registration Number 71,080

Note: *This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required.**

☑ *Total of 1 forms are submitted.

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The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
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3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

PORTION CAPSULE HAVING AN IDENTIFIER

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application claims benefit from and is a divisional of U.S. Application No. 15/211,823 filled July 15, 2016 entitled PORTION CAPSULE HAVING AN IDENTIFIER, which claims benefit from and is a continuation of U.S. Application No. 13/744,623, filed January 18, 2013, entitled PORTION CAPSULE HAVING AN IDENTIFIER, which claims benefit from International Application No. PCT/EP2011/003677, filed on July 22, 2011, entitled PORTION CAPSULE HAVING AN IDENTIFIER, which applications are hereby incorporated by reference in their entirety.

BACKGROUND

[0002] The present invention relates to a portion capsule for producing a beverage, comprising a base element having a cavity in which a beverage raw material is provided and which is closed by a membrane fastened to the base element.

[0003] Such capsules are well known and are being launched onto the market in abundant variety. Since these capsules are often quite similar, it is possible that the manufacturer's capsules are used in a coffee machine designed by another manufacturer, although they are not suited for it. This may result in significant security issues and/or the coffee machine may be damaged.

[0004] The object of the present invention is therefore to provide a portion capsule which only is suitable for a specific coffee machine.

SUMMARY

[0005] The object is accomplished according to the present invention by a portion capsule for producing a beverage, comprising a base element having a cavity in which a beverage raw material is provided and which is closed by a membrane fastened to the base element, wherein it has an identifier, which allows to individualize the respective portion capsule.

[0006] The present invention relates to a capsule for producing a beverage or foodstuff, comprising a base element having a cavity in which a beverage raw material is provided. Such capsules are, for example made of plastic, natural materials and/or biodegradable materials

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and substantially have a base element, in particular a deep-drown base element, i.e. it is substantially designed frustoconically or cylindrically. The beverage raw material is arranged within the portion capsule's cavity and is extracted and/or dissolved in a liquid, in particular water. After the beverage raw material has been filled into the cavity the base element is usually sealed by a membrane. In particular the membrane is localized on the opposite side of the base element's bottom. The membrane can be made of the same or different material as the base element and is substantially attached to the base element using a sealing and/or an adhesive bonding. Additionally the cavity could contain one or several built-in elements, such as, for example a filter, a non-woven, a felt, a shut-off device and/or something similar to those. For the case that a non-woven and a felt are arranged within the cavity, they are interconnected preferably. The non-woven and/or the felt can be made of several layers in such a way that the layers may differ in the kind of its starting material and/or its preparation. Moreover the membrane and/or the bottom can be provided with a plurality of recesses (holes).

[0007] According to the present invention, it is provided that the portion capsule has an identifier that allows to individualize the respective portion capsule. In the context of this invention individualizing means that the respective portion capsule can be assigned to a group of capsules that are suitable for the coffee machine preferably. It is not necessary that the coffee machine is able to specify and/or identify the portion capsule. In fact it is much more important that the coffee machine associates the portion capsule with a group of portion capsules, which is suitable for the coffee machine. In particular, individualizing means that those portion capsules that are not appropriate for the coffee machine cannot be inserted into and/or directly fall through the holder, which is designed for the portion capsules in the coffee machine, and/or the coffee machine operates only with the corresponding portion capsules. Preferably a sensor/detection system handles the identifier and compares it with a stored reference substantially. Preferably, the coffee machine, in particular the water-providing-pressure pump, will be activated if the detected identifier matches with the reference. Otherwise the coffee machine will not start operating. Preferably the detection system is placed in the region of the coffee machine's media chute designed for the portion capsules. According to another preferred embodiment of the invention, the detection system may be placed in the region of the brewing chamber. Another possible embodiment of the invention provides that the identifier prevents portion capsules from inserting into the coffee machine. Alternatively or additionally, means, in particular mechanical means, more preferably, one or

more gearwheels, may be added to the media chute in order to guarantee that incorrect portion capsule cannot be inserted into the coffee machines by passing the media chute.

[0008] Preferably the identifier is composed of surface areas having different optical properties, for example reflection. These surfaces may be localized on the membrane, the side wall and/or the bottom of the portion capsules. Preferably, the portion capsule has at least two areas which differ in their optical properties, for example the reflection characteristics.

[0009] The detection of a recess and/or a bulge is also preferred. Preferably, recess and bulges alternate and/or at least two recesses or bulges are separately placed from each other. Especially it is possible that the recess and/or the bulge form a gearwheel that is attached to the outer border and/or at least partially extends to the wall region of the portion capsule. The recess and/or bulge may be produced by any shaping method, for example by deep drawing, preferably.

[00010] Furthermore, the recess may be realized by removing material. In particular the material's remove can be accomplished by punching or using a laser on condition that this processing does not damage a barrier layer placed in the portion capsule's material, which prevents moisture or aroma from escaping out of the portion capsule and/or water vapor or oxygen enters the capsule. The reading of the identifier, which is encoded in the recess and/or bulge, may be a result from a mechanical and/or optical method, for example. Alternatively or additionally, the identifier can be used to avoid that the portion capsule is inserted into the coffee machine. This applies in particular to the media chute. For example it is possible to design a portion capsule comprising a ring gear that is placed on its circumference and is compatible with another ring gear, which is placed in the media chute. If the media chute's ring gear only revolves for a corresponding ring gear of the portion capsule and its revolving allows the portion capsule to pass, only portion capsules equipped with the proper ring gear will pass the insertion lock.

[00011] According to a further subject matter of a preferred development of the present invention, the identifier may be included in the membrane. Preferably, the identifier is a layer or partial layer of the membrane. Such identifiers may be an optically detectable material, for example a fluorescent material. Furthermore, the identifier may be designed with layers made

of metal or ferrous metal or stripes made of metal or ferrous metal in or on the membrane, respectively.

[00012] Preferably the identifier is a machine-readable imprint. This is realized with a print in food approved color, preferably. Fluorescent materials like paper or print materials, whose optical properties change under the influence of temperature, are favored also. Preferably the print is a barcode, a logo or a rapport.

[00013] According to a further subject matter of a preferred development of the present invention, the identifier is an electrically conductive section, which can be placed all over the portion capsule, but is localized on the side wall, the edge and / or the floor preferably. The electrically conductive section, which is inserted into the coffee machine, can become part of an electric circuit and causes therefore a measurable change, which leads to the identification of the respective portion capsule. In a further preferred embodiment, the identifier is a section made of a ferromagnetic material.

[00014] Another construction version favors a RFID chip being the identifier.

[00015] If the portion capsule is customized according to the invention, portion capsules that are not in line with the coffee machine will be prevented from inserting into the coffee machine. Furthermore it is possible that the identifier allows to identify the portion capsule located in the brewing chamber in such a way that the production process of beverage or food may be controlled, for example by adjusting the temperature, the pressure and/or the amount of water.

[00016] According to a further subject matter of a preferred development of the present invention, the portion capsule's material is weakened in the bottom area caused by a selective material removal, for example by using a laser. The weakening is provided for piercing the portion capsules using a mandrel. This procedure is needed for the beverage's preparation. Since the material is weakened in the section, which is treated with a laser and is supposed to be pierced using the mandrel, the degree of necessary force for piercing the portion capsule is reduced. The mandrel of such coffee machines is usually equipped with a force limitation that limits the force, which is dedicated for pressing the mandrel against the portion capsule's bottom. This preparation avoids that portion capsules having no appropriate weakening can be

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used in such a coffee machine. Consequently the weakening represents another kind of identifier.

[00017] According to a further subject matter of a preferred development of the present invention, the portion capsule has an edge region, which is preferably attached to the base element. Preferably, the edge is located opposite of the base element's bottom area. After the raw material has been filled in the portion capsule, a membrane can be attached to this edge region, for instance. Moreover the edge can also designed for guiding the portion capsule into the chute in order to position the portion capsule in the brewing chamber properly. Simultaneously it is possible to use the surface of the edge for stopping and/or sealing.

[00018] Preferably provision is made for the portion capsule to have means for fit locking, friction locking and/or detection in the edge region. The means for fit locking and/or friction locking may be used to activate a complementary mechanism, which is located in the coffee machine, in order to allow inserting the portion capsule into the coffee machine and/or starting a sensor, like a gearwheel, that transmits a signal to a control unit depending on whether the portion capsule corresponds to the coffee machine or not. Alternatively or additionally, a detector may identify the mean for fit locking, friction locking and/or detection in order to check that the portion capsule is suitable to the respective coffee machine.

[00019] Preferably the means for fit locking, friction locking and/or detection is a gearwheel or a gearwheel' segment, which are located, in particular, in the outer area of the edge region. The teeth of the gearwheel or the gearwheel' segment may be shaped in any commonly used form, which is known, for example, by an expert from gear manufacturing. Preferably it is provided that these teeth are triangular, rectangular, square or wavy.

[00020] Preferably there is a sealing surface, that is arranged on the interior side relative to the gearwheel or the gearwheel' segment.

[00021] Another and preferred state-of-the-art technology is a portion capsule for producing a beverage, comprising a base element substantially designed frustoconically or cylindrically, having a cavity in which a beverage raw material is provided and which is closed by a membrane fastened to the base element with the base element having a wall region and the base element having a bottom area, which is preferably located opposite to the

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membrane, with the wall region having several grooves and the grooves which are located between membrane and bottom area covering the wall region along its height at least partially. The grooves may be also located in the edge region, in particular on the outer area of the edge region.

[00022] This portion capsule has the advantage over the portion capsule according to the state-of-the-art technology that, for instance, the grooves reinforce the base element's wall region. On the one side these grooves make the portion capsule more stable towards mechanical forces and prevent the portion capsule from deformation and buckling, in particular. The arrangement of the grooves, which are located at the wall region, additionally improves the performance of the portion capsule while the extraction liquid flows through it in the brewing chamber, since the arrangement of the grooves, in particular those partially expending over the wall region between membrane and bottom area, increase quality and reliability of the extraction process significantly. According to the invention another advantage is that the base element's thickness can be reduced, because the use of grooves improves the physical stability. The production of the portion capsule is therefore much less expensive and more environmentally friendly. On the other side the grooves reduce or avoid the contact between the portion capsule's wall region and the wall of the brewing chamber. As a result ejecting or removing the portion capsule from the brewing chamber is made easier. Another advantage of using a plurality of grooves is that the stream of the extraction liquid, which flows along the base element in the cavity, can be optimized by choosing a grooves' structure that is able, for example, to generate on the one hand a better or stronger turbulence in the extraction liquid or on the other hand a more uniform (laminar) flow of the extraction liquid, in the wall region. The control of the liquid may be obtained by the structure of the grooves itself or by using simple means additionally. A stronger turbulence compared to the one known in the state-of-the-art has the advantage that no unintended and casual main streams are formed in the raw materials. Instead the extraction liquid equally flows through the raw material in all of the volume. Thus the extraction process is much more efficient and can be controlled more precisely and reproducibly.

[00023] In particular the raw material may be coffee powder (especially ground roasted coffee), chocolate powder, milk powder, tea or the like. Alternatively, it is conceivable that the raw material is a beverage's extract, such as instant coffee for example.

[00024] In particular, the grooves are recesses and bulges, which are preferably directed along a main extension and are preferably extended along the wall portion or the periphery of the edge region. More preferably, the grooves are formed as webs and/or notches. A gearwheel, for instance, may be obtained by the grooves. Therefore the grooves are part of the base elements' wall, optionally located on the inner side facing to the cavity and/or on the outside facing away from the cavity.

[00025] According to a preferred embodiment of the present invention, it is provided that the grooves form an identifier that allows individualizing the portion capsule. In the context of this invention individualizing preferably means that the respective portion capsule can be assigned to a group of capsules that are suitable for the respective coffee machine or the machine producing a beverage. It is not necessary that the coffee machine or the device for producing a beverage is able to specify and/or identify the portion capsule. It is more important that the device for producing a beverage, in particular a coffee machine, associates the portion capsule with a group of portion capsules, which is appropriate for the respective device for producing a beverage, in particular a coffee machine. In particular, individualizing means that those portion capsules that are not appropriate for the coffee machine (or the device producing the beverage) cannot be inserted into and/or directly fall through the holder, which is designed for the portion capsules in the coffee machine (or the device producing the beverage), and/or the coffee machine (or the device producing the beverage) operates only with corresponding portion capsules ("proper portion capsule"). In particular, individualizing means that the coffee machine or the device producing the beverage will not operate properly in the intended use, if the used portion capsule is not customized according to the invention. Preferably a sensor/detection system, attached to the coffee machine or the device producing the beverage, records the identifier and substantially compares it with a stored reference. In particular, it is possible that such an identification process is based on a mechanical fitting, especially a fitting of a gearwheel or of a contour comparable with a gearwheel, which is attached to the device producing the beverage or the coffee machine and interacts with the portion capsule. It is preferred that the device for producing the beverage or the coffee machine only will operate, if the identifier matches to the reference or the mechanical fittings match with each other. In this case the device for producing the beverage particularly starts to operate, especially activates a pressure or water pump. The mean for detection or mechanical fitting is preferably located in the region of the media chute or in the region of the device for producing the beverage. Alternatively the identifier or the mechanical fitting may avoid that

an unsuitable portion capsule is inserted into the device for producing the beverage. A portion capsule, which is designed in accordance with the invention, makes it possible that a portion capsule that is not designed for the device for producing a beverage cannot be inserted into it. Additionally the identifier allows that the device for producing the beverage, especially the coffee machine, may specify the sort of the portion capsule and thereby control the production process of beverage and food by adapting, for example, the pressure, the temperature and/or the amount of water.

[00026] According to a further preferred embodiment of the present invention, it is provided that at least a part of the grooves and at least in a subarea parallel to the main plane of the membrane is gearwheel shaped.

[00027] According to the present invention it is an advantage that it is possible to increase the stability of the portion capsule's wall region, to realize improved turbulences of the extraction liquid and thereby to improve the extraction's process under the same conditions, for example, such as material thickness and the like. Another advantage is that it is easy to generate a mechanical identifier or a mechanical fitting that matches with a fitting tool that belongs to the device for producing a beverage. According to the invention it is an further advantage that, for example, a gearwheel, which is attached to the device for producing a beverage and is, for example, located in the region of the media chute or similar, can possibly interacts with the gearwheel's contour of the portion capsule. In this way it is possible to generate a mechanical fitting that allow to individualize the portion capsule as a proper one and/or to specify the sort of portion capsule and/or to rotate the portion capsule about an axis of rotation, that is perpendicular to the membrane's main plane, by using the gearwheel's arrangement. Such an embodiment of the invention makes it possible that the portion capsule is always opened with the device for producing a beverage on the same spot (with respect to its angular position) and therefore the raw material is extracted on the same manner. Moreover the grooves prevent the portion capsule from being inserted into the coffee machine.

[00028] In a preferred version of the invention, it is provided that there is a flange/edge region being averted from the bottom region, for fixing the membrane to the base element, where in the wall region between flange/edge region and bottom region preferably has a border and the grooves are being preferably extended to this border.

[00029] Because of this it is another advantage according to the invention that on the one hand the wall region can be constructed in a stable and reinforced manner and on the other hand the gearwheel shaped contour of the grooves, located at the wall region, is able to absorb a relative high load. With that it is possible that the portion capsule can be rotated easily and without any damaging of the portion capsule within the device for producing a beverage.

[00030] Preferably the base element's diameter is enlarged in the border's region compared to the wall region, which range from the border to the bottom region.

[00031] This gives rise to the advantageous possibility to stack portion capsule or portion capsules' base elements easily and robustly.

[00032] Moreover it is preferred that at least a part of the grooves are gearwheel shaped and at least a plane, which is at least partially gearwheel shaped, is parallel to the membrane in such a way that the gearwheel shaped contour expands over the borders or the flange/edge region.

[00033] Further preferred versions of the present invention relate to portion capsules that implement one or more of the following characteristics:

- the base element tapers in the direction of the flange in the border's region,
- the grooves directed toward the bottom region expand over the border's region,
- the grooves approximately cover 20% -80%, preferably 40% - 60% of the wall region, which is placed between the border and the bottom region,
- the grooves are constructed in such a way that the wall region is reinforced and/or the grooves causes an extraction liquid's turbulence in the cavity.

[00034] Other preferred versions of the present invention relate to portion capsules that are manufactured in such a way that the ratio of the diameter of that wall region of the base element which adjoins the flange to the diameter of the flange is between 0.85 and 0.89, and in particular substantially 0.87.

[00035] In a preferred version the wall region's diameter, which is adjacent to the flange, is 39 millimeter and the flange's diameter is 45 millimeter. Another advantageous version of the invention prefers a base element having a thicker wall region in the border's region compared to the wall region between bottom region and flange. Since the portion capsule's design, which contains grooves in the wall region, improve its stability, it is possible to save material by manufacturing the portion capsule and therefore to reduce cost and energy required for manufacturing the portion capsules.

[00036] According to the invention it is further provided that a filter element is arranged into the cavity. Such a filter element divides the cavity into a first region for accommodating the beverage raw material and into a second region for accommodating a beverage extract. In particular, it is provided that the filter element is made of a non-woven material.

[00037] According to a further subject matter or a preferred development of the present invention the portion capsule according to the invention is intended for the preparation of a hot beverage. In the following the invention is explained based on the Figures 1 – 22. These explanations do not restrict the general idea of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[00038] **Figure 1** shows a portion capsule containing sections that differs optically.

[00039] **Figure 2** shows a portion capsule containing a barcode.

[00040] **Figure 3** shows a portion capsule with recesses and bulges.

[00041] **Figure 4** shows a portion capsule containing sections that differs optically.

[00042] **Figure 5** shows a portion capsule with a key function.

[00043] **Figure 6** shows a portion capsule's wall that is electrically conductive.

[00044] **Figure 7** shows a portion capsule's wall containing sections that differs optically.

[00045] **Figure 8** shows an enlarged pot construction of the portion capsule's wall.

[00046] **Figure 9** shows an edge region that is electrically conductive.

[00047] **Figure 10** shows a portion capsule containing a bottom that is electrically conductive.

[00048] **Figure 11** shows an embodiment containing a layer that can be detected by a metal detector.

[00049] **Figure 12** shows a metallic strainer.

[00050] **Figure 13** shows a portion capsule containing a ferromagnetic section.

[00051] **Figure 14** shows a portion capsule containing a barcode.

[00052] **Figure 15** shows a portion capsule containing a section, which is electrically conductive, in the wall.

[00053] **Figure 16** shows a portion capsule with a gearwheel placed in the brewing chamber.

[00054] **Figures 17 a-c** show different embodiments of the portion capsule according to Figure 16.

[00055] **Figure 18** shows the portion capsule according to the Figures 16 and 17, when the portion capsule is fit locking with a gearwheel.

[00056] **Figures 19 and 20** show a schematic view of a portion capsule according to an embodiment of the presented invention.

[00057] **Figures 21 and 22** show two sectional views of the portion capsule according to an embodiment of the presented invention.

DETAILED DESCRIPTION

[00058] The view illustrated on the right side of **Figure 1** shows a portion capsule 1 comprising a base element 2 that has a wall region 2.1 and a bottom area 2.2. The wall region 2.1 and the bottom area 2.2 define a cavity, which may include the raw material and perhaps a built-in element. After filling the cavity is sealed by a membrane, which is preferably attached to the edge region 2.4 of the base element using seal or glue. This portion capsule can be inserted into a brewing chamber shown in Figure 12, with a liquid, in particular water, flowing through it. During this process the raw material is extracted or dissolved and therefore the beverage is produced. According to the invention the portion capsule has only one identifier that allows to determinate whether the respective portion capsule goes with the coffee machine's brewing chamber and the parameters for processing are chosen properly. If it is not the case, significant security issues arise. Inserting the wrong portion capsule, for example, endanger the brewing chamber's tightness. In this case hot water can be discharged under high pressure and therefore compromise the user's safety. Otherwise it is also possible that inserting the wrong portion capsule damages the coffee machine. In this example the identifier is represented by several raised areas 8, which differ in reflection properties from the sections between the raised areas. As shown by the arrows the bulges are passed by a mean for detection (here: an optical detector) that is able to differentiate between the unequal sections 5, 6 having different optical properties such as, for example, reflection. Switching between the different sections or the number of bulges represents the identifier. After the identifier has been read out the identifier is compared to a stored reference. If the identifier agrees with the reference, the coffee machine will start operating. Particularly the pump, which is for example responsible for pushing hot water through the brewing chamber, will not start operating, if the identifier does not agree with the reference.

[00059] All the remarks concerning the identifier apply to all the examples.

[00060] **Figure 2** shows another embodiment of the portion capsule according to the invention. Here the portion capsule has a barcode placed in the area of the membrane's top surface. This bar-code may be printed by material removal or may be generated by a medium that is integrated in the foil and can be detected optically such as a fluorescence agent.

Alternatively metal rings may be part of the foil or attached to the foil. The bar-code's section may be made of a ferromagnetic material. As shown by the arrow 15 the bar-code alternatively can be attached to the base element's edge region being averted from the membrane. Such a bar-code is read out by a detector 13 placed, for example, in the media chute. The bar-code represents the identifier according to invention.

[00061] **Figure 3** shows another embodiment of the portion capsule according to the invention. In the present case the identifier comprises recesses and bulges, which result from material removal or reshaping the portion capsule as shown here by the example of the portion capsule's wall 2.1. In the present case recesses and bulges interact with a mean for detection 13, which operates like a key, wherein the coffee machine only start operating, when all elements 13 are placed in the respective recess. Therefore an electric circuit may be changed or especially closed.

[00062] **Figure 4** shows an embodiment of the portion capsule being substantially identical to the embodiment illustrated in Figure 1. As an alternative version of the invention the figure additionally shows that the sections differing in terms of optical properties can be attached to the cover foil, for example in the form of a bar-code.

[00063] **Figure 5** shows an embodiment of the portion capsule being substantially identical to the embodiment illustrated in Figure 3. Again the recesses represent the key bit. The coffee machine only will start operating, if the recesses interact with the corresponding bulges and therefore an electric circuit is changed respectively. The placement of such a system is not restricted to the brewing chamber. For instance the system may be placed in the portion capsule's media chute.

[00064] **Figure 6** shows a version of the invention that includes an electric material forming a surrounding ring, which preferably has a raised form. The electrically conductive material is scanned by electric sliding contacts, which are placed in the media chute and form electric contacts of an electric circuit, while the portion capsule is inserted.

[00065] **Figure 7** an embodiment of the portion capsule being substantially identical to the embodiment illustrated in Figure 6, in which it is provided that the ring area has reflective or mat sections, for example in form of a covering, and allows a read-out by means for optical

detection, which are placed in the media chute and are part of a control current, while the portion capsule is inserted.

[00066] **Figure 8** shows a relative broad and raised ring which represents the identifier. The media chute is equipped with a corresponding vacancy that tests whether the portion capsule has the proper identifier. The broad ring is scanned, for example, by mechanical sensors, which are placed in the media chute and close the contacts of an electric circuit, while the portions capsule is inserted.

[00067] **Figure 9** shows another embodiment of the portion capsule according to the invention. In the present case an electrically conductive coat is integrated in the edge region's back and is scanned by electric sliding contacts, which are placed in the media chute and form electric contacts of an electric circuit, while the portion capsule is inserted.

[00068] **Figure 10** shows another embodiment of the portion capsule according to the invention. In the present case the portion capsule has an electrically conductive coat such as a conductive varnish layer or an aluminum foil. The coat is scanned by electric sliding contacts, which form electric contacts of an electric circuit, while the portion capsule is inserted.

[00069] **Figure 11** illustrates a version of the portion capsule having also an electrically conductive coat that is placed on its bottom and is identified by a metal sensor, which is placed in the chute and, for example, detects inductively, while the portion capsule is inserted.

[00070] The embodiment of the invention shown in **Figure 12** has a build-in element made of metal (here a strainer 19) that is recognized as identifier by a metal detector.

[00071] The version of the invention shown in **Figure 13** includes a ferromagnetic material placed at the portion capsule' bottom. The identifier is scanned, for example, by a magnet, which is placed in the chute, while the portion capsule is inserted. The ferromagnetic material acts as identifier.

[00072] **Figure 10** shows another embodiment which includes a bar-code placed in the region of the cover foil.

[00073] According to the embodiment shown in **Figure 15** a metallic ring is integrated in the wall and closes an electric circuit placed in region of the brewing chamber.

[00074] **Figure 16** shows another embodiment of the portion capsule 1 according to the invention. The illustrated portion capsule features a base element that is basically conical-shaped in the present case and has a bottom region 2.2 and a wall region 2.1. It is provided that the base element contains the raw material and, if necessary, build-in elements like a filter as illustrated here. The expert knows that the build-in element may also include other build-in elements. A flange/edge region 2.4, which is preferably circular and, for example, may be used for sealing a cover foil to it, is attached to the end of the base element, which is placed opposite to the bottom. The flange/edge region has means for fit locking, friction locking and/or detection 2.4.2 in the outer area (outer circumference). As especially shown in the Figures 17a – 17c the mean 2.4.2 is, in the present case, a gearwheel that is formed by several recesses/bulges evenly arranged in the edge region. Preferably, it is provided that the edge region has a sealing surface, which sealingly interacts with the sealing 21 attached to the brewing chamber 27, on the interior side of the gearwheel. The sealing 21 makes sure that the water coming from a water inlet 28 flows rather through the portion capsule by passing a opening, which has been made by a mandrel 29, than around it.

[00075] **Figures 17a – 17c** show different embodiments of the mean 2.4.2.. According to the version shown in Figure 17a the gearwheel has forty-five teeth. According to the version shown in Figure 17b or 17c the gearwheel has twenty-two or twenty-nine teeth, respectively. The expert knows that the manufactured teeth can be shaped arbitrarily. All Figures 17a – 17c demonstrate how the portion capsule 1 can be hold by a part of the brewing chamber 27 using two holding arms 30. The holding arms interacts with the mean 2.4.2. If they are not available, the holding arms will not hold the portion capsule and the portion capsule will not be inserted into the brewing chamber and will fall through it into a dropping box instead.

[00076] **Figure 18** shows the mean 2.4.2. along with an mean for fit locking 24, which is attached to the coffee machine and is represented by a pinion here. It is provided that the mean for fit locking 24 is placed in the media chute having a port for inserting the portion capsule in the coffee machine. The distance between the inner wall of the portion capsule 25 and the pinion 27 are designed in such a way that the portion capsule only will pass the port,

if the mean for fit locking is formed complementary to the teeth of the pinion 27. Only in this case the portion capsule rotates the pinion 24 while it falls. Both rotating and falling are represented by arrows in the figure. The portion capsule needs the rotation for passing the media chute's port and falling in the intended position afterwards. If the portion capsule has no or wrong mean of fit locking, it will be impossible to place the portion capsule by passing the media chute in the intended position. Additionally or alternatively it is provided that the pinion 24 has a pick-up that detects the rotary movement and transmits it to a control unit. If the rotation at least correspond a defined rotating element, the control unit will activate, for example, the brewing unit. The expert knows that the portion capsule's border may include means for friction locking that interacts with a mean, for example an edge, and shift it in such a way that the shift is detected and therefore the brewing chamber is activated.

[00077] The expert moreover knows that a sensor, being for example a camera, which detects the form of the mean 2.4.2., may be installed in the media chute. In the present case the form and/or the distance between the teeth may be detected. If the proper portion capsule was inserted, a resulting signal could be transmitted to a control unit, which activates the brewing chamber.

[00078] **Figure 19** schematically shows a view of another portion capsule's version according to an embodiment of the present invention. **Figure 20** illustrates the same portion capsule from a different point of view schematically. Figure 19 shows the front view of the portion capsule. Figure 20 shows the portion capsule viewed from an angle below. In all figures the portion capsule is labeled with the reference sign 1. The portion capsule substantially has a frustoconically shaped base element 2, which is formed similar to a pot and encloses a cavity 3. The cavity 3 is sealed by a membrane 4. Since the viewing direction of Figure 1 is essentially parallel to the plane, in which the membrane is located, the figure just adumbrate the membrane at the upper edge of the portion capsule. In particular the base element 2 comprises a soft, semi-rigid or rigid plastic material which is deep-drown, preferably. The membrane comprises a foil made of plastic material or aluminum. Preferably the base element has a circumferential mounting flange 17 in the region of the membrane, with the membrane and the mounting flange 17 being firmly bonded, in particular by welding or gluing. Preferably a filter element, which is not specifically depicted in the figures, is placed within the base element 2. For instance, the filter element is made of thermoplastic resin such as, for example, polypropylene. The filter element could also be made of a non-

woven material such as, for example, thermoplastic resin. Preferably the filter element divides the cavity 3 in two sections. It is provided that the first section can be filled with a raw material and the second section can be filled with and particularly collect a beverage's extract, which is not shown, during the extractions process. Both sections are not illustrated individually.

[00079] The portion capsule is intended for inserting into a brewing chamber or a device for producing a beverage, which is not shown here. In particular such a device for producing a beverage is a coffee machine. The device for producing a beverage could be also a machine that produces a tea drink, a chocolate drink or any other beverage. Preferably an extraction liquid, which is particularly water or hot water, is brought under high pressure into the brewing chamber of the device for producing a beverage. The extraction liquid interacts with the raw material of the beverage in such a way that an extract of a beverage or a beverage is generated. In particular the filter element is utilized as a strainer for the extract of a beverage.

[00080] According to the invention the base element 2 has a wall region 12 and a bottom area 11. The wall region 12 basically ranges from the flange 17 to the bottom region 11. Several grooves 15 are placed in the wall region. In particular these grooves are keyways that are integrated in the wall region 12 and are facing the cavity 3 and range from the flange 17 to the bottom region 11 (i.e. they run perpendicular according to Figure 19). According to the invention provision is made for the grooves 15 to be extended vertically across the wall region, i.e. they run straight from the flange 17 to the bottom region 11, in which it is not necessary that they are extended over the whole length. The grooves are formed according to the invention in such a way that the wall region is reinforced or stiffened due to the grooves 15. Moreover the plurality of the grooves 15, which are distributed over the wall region 12, realize an adhesion between wall region 12 and the brewing chamber's wall of the device for producing a beverage after the extraction process. This makes it easier to eject the portion capsule from the brewing chamber automatically. The portion capsule's version represented in Figure 19 comprises a circumferential border 16 that is placed at the wall region 12 ranging from the flange 17 to the bottom area 11, namely adjacent to the flange 17 facing towards the bottom area 11. The border 16 has an enlarged diameter (parallel to the membrane 4) compared to the wall region's ranging from the border 16 to the bottom area 11. It is provided

that the border's contour 16 is designed in such a manner that the border's diameter tapers towards the flange 7.

[00081] It is provided according to the portion capsule's embodiment, which is represented in Figure 19 and is in accordance with the invention, that the grooves 15 are placed in the border's region in the first part, partially range from the border 16 to the bottom area 11 across the wall region 12, in the second part and then finally end. All in all the grooves cover, for example, around 50 % of the extension of the wall region 12, which ranges from the flange 7 to the bottom area 11, wherein one-third of the grooves' extension is placed in the border's region and two-thirds of the grooves' extension is placed in the remaining wall region 12 that range from the border 16 to the bottom area 11.

[00082] A portion capsule according to the invention is shown as sectional view along the portion capsule's extension regarding its height in **Figure 21**, i.e. the section's plane is perpendicular to the membrane's main plane. **Figure 22** also shows a portion capsule according to the invention in a sectional view portraying the sectional plane, which is parallel to the membrane's main plane. It is noticeable that the interior of the portion capsule's cavity is shown in Figure 21. The portion capsule's material or the base element's material is so thin that the implementation of grooves at the exterior shown in Figure 19 leads to corresponding convexities and impressions at the interior. Figure 22 particularly illustrates the gearwheel shaped contour resulting from insertion of grooves in the portion capsule's wall region.

CLAIMS

1. Single-serve capsule for making a beverage, having a basic element with a cavity, in which a raw beverage material is provided, the capsule having a peripheral region which is provided on the basic element, and the cavity being closed by a membrane, which is fastened on the peripheral region of the basic element, wherein the capsule has an identifier, which makes it possible to individualize the respective single-serve capsule, characterized in that the identifier is a barcode which is provided on that side of the peripheral region of the basic element which is directed away from the membrane.

2. Single-serve capsule according to Claim 1, characterized in that a sealing surface is provided on the peripheral region and/or flange.

3. Single-serve capsule according to Claim 1, characterized in that it has an insert element with an identifier.

4. Single-serve capsule for making a beverage, having an essentially frustoconical or cylindrical basic element with a cavity for accommodating a raw beverage material, and with a membrane which closes the cavity, characterized in that the basic element has a wall region, wherein the basic element also has, on that side of the single-serve capsule which is directed away from the membrane, a base region, wherein the wall region, or the outer circumference of a flange has a plurality of channels.

5. Single-serve capsule according to Claim 4, characterized in that the channels realize an identifier, which makes it possible to individualize the single-serve capsule.

6. Single-serve capsule according to Claim 4, characterized in that at least some of the channels, and at least in a sub-region in a plane parallel to the main plane along which the membrane extends, have a gear-wheel-like contour.

7. Single-serve capsule according to Claim 4, characterized in that the channels are designed such that the wall region is stiffened by means of the channels and/or in that the channels provide for turbulence of an extraction liquid flowing in the cavity.

8. Single-serve capsule according to Claim 4, characterized in that the cavity contains a filter element, which subdivides the cavity into a first region for accommodating the raw beverage material and into a second region for accommodating a beverage extract.

9. Use of a single-serve capsule according to Claim 1 for making a hot beverage.

PORTION CAPSULE HAVING AN IDENTIFIER

ABSTRACT

A portion capsule for producing a beverage includes a base element having a cavity in which a beverage raw material is provided and which is closed by a membrane fastened to the base element.

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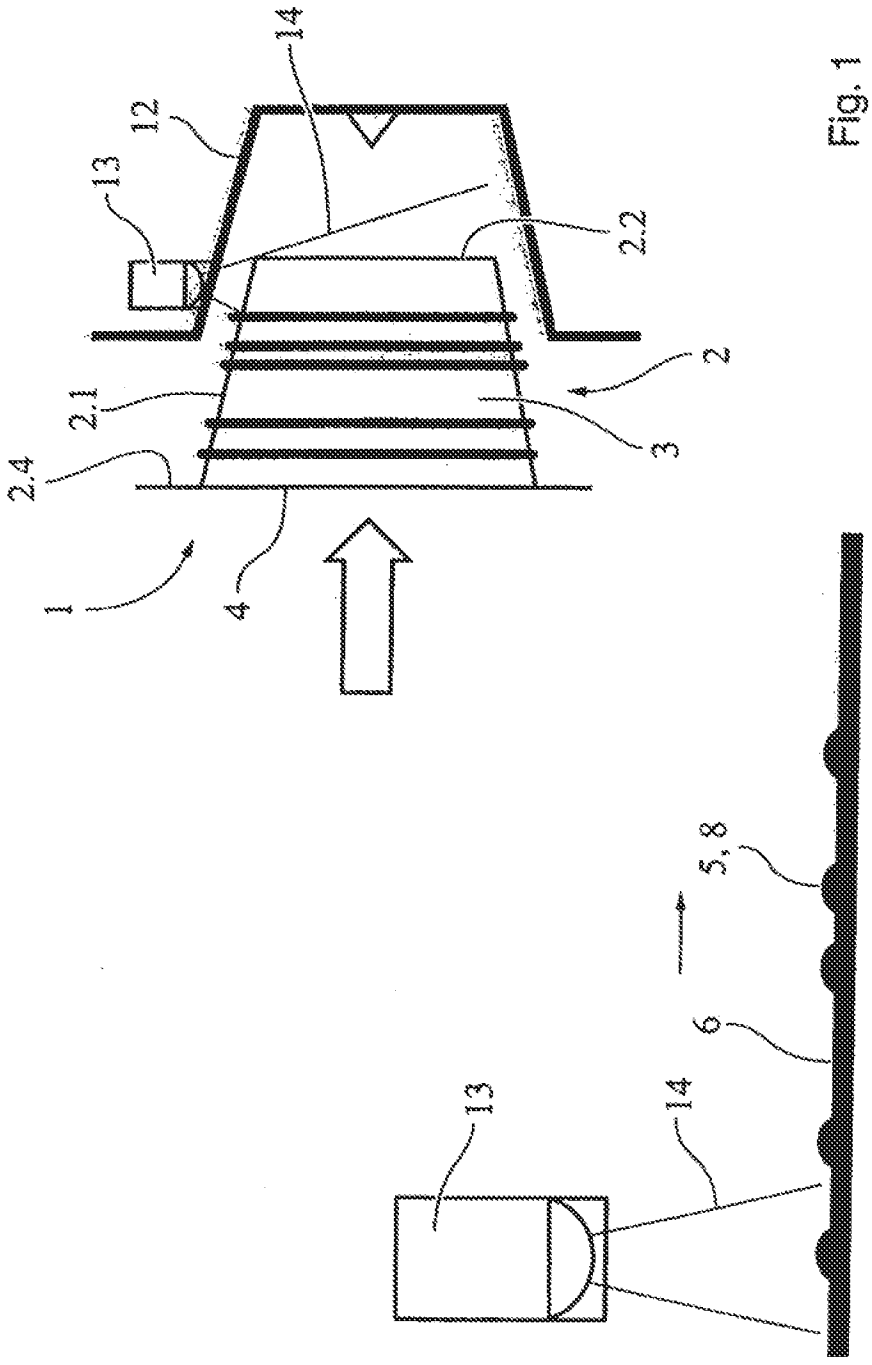


Fig. 1

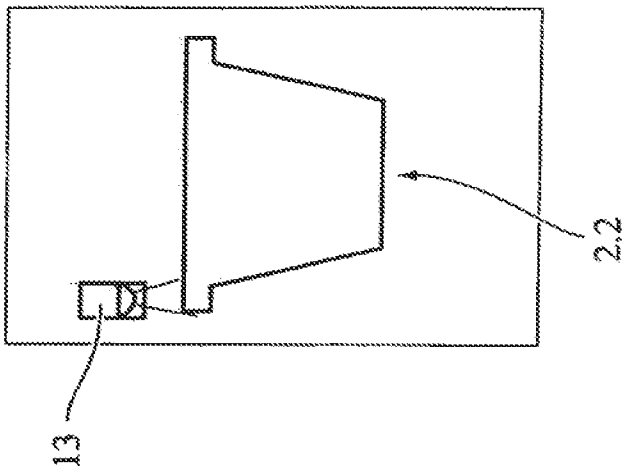
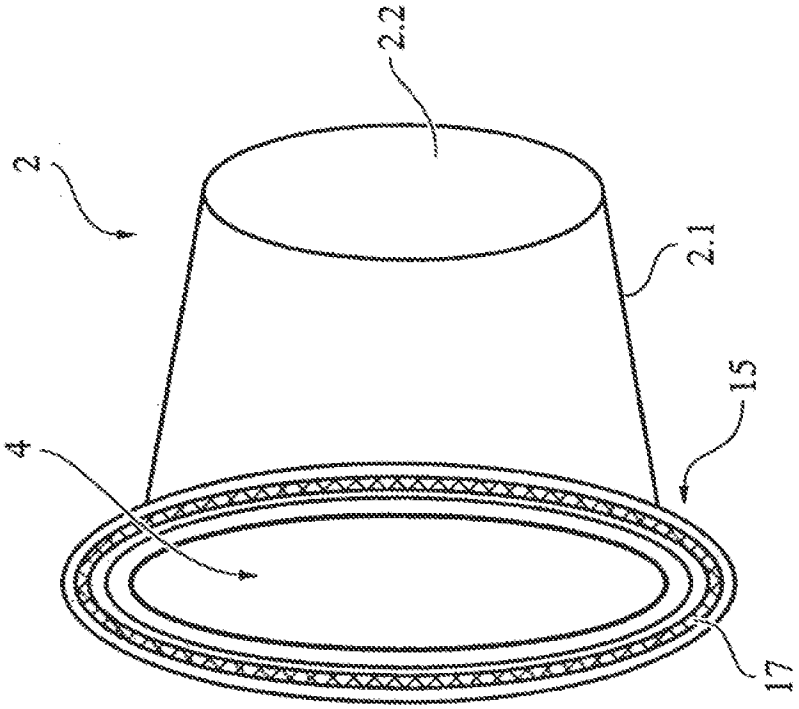


Fig. 2



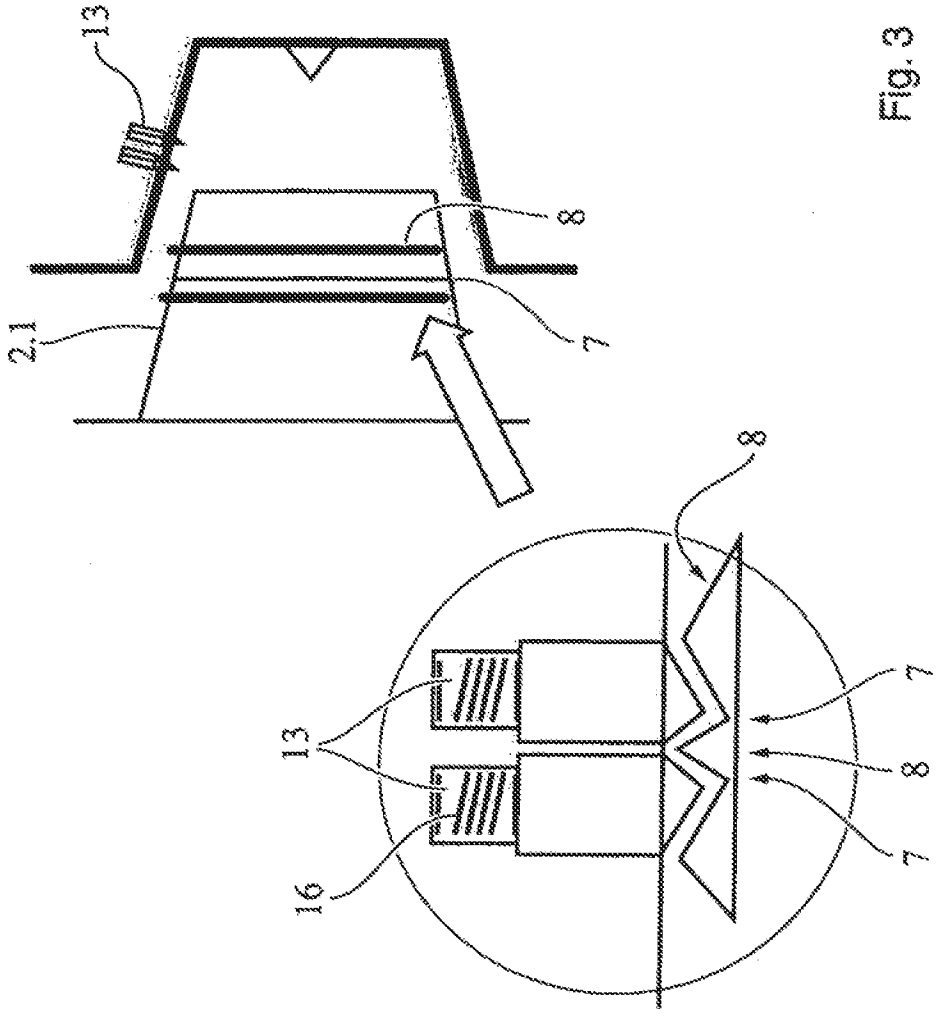


Fig. 3

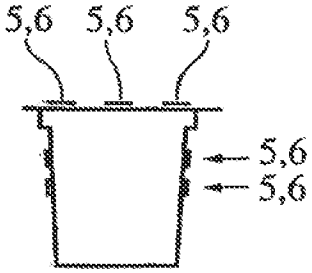


Fig. 4

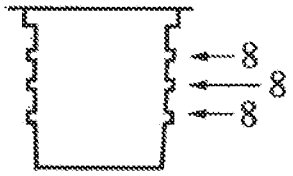


Fig. 5

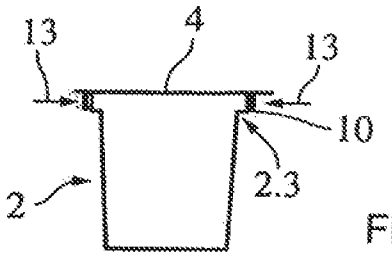


Fig. 6

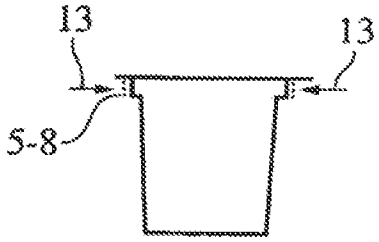


Fig. 7

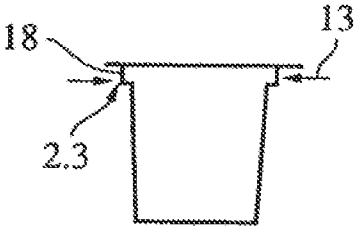


Fig. 8

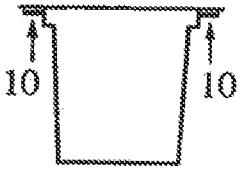


Fig. 9

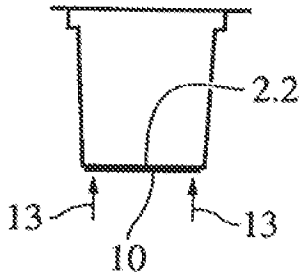


Fig. 10

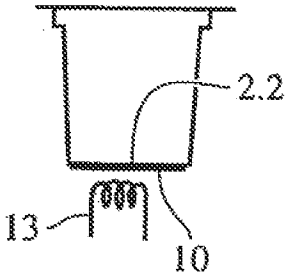


Fig. 11

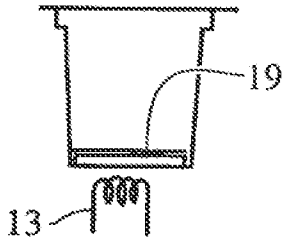


Fig. 12

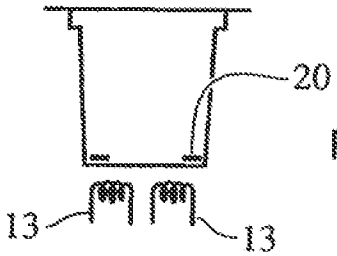


Fig. 13

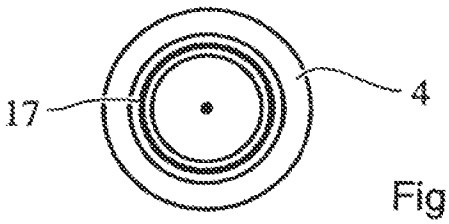


Fig. 14

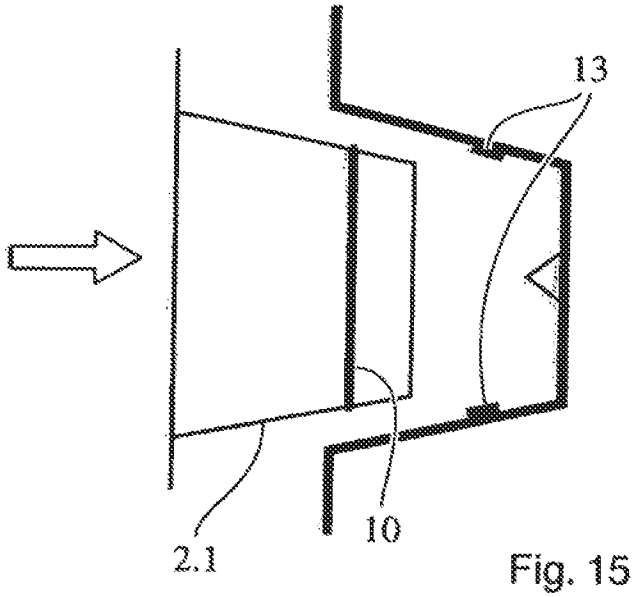


Fig. 15

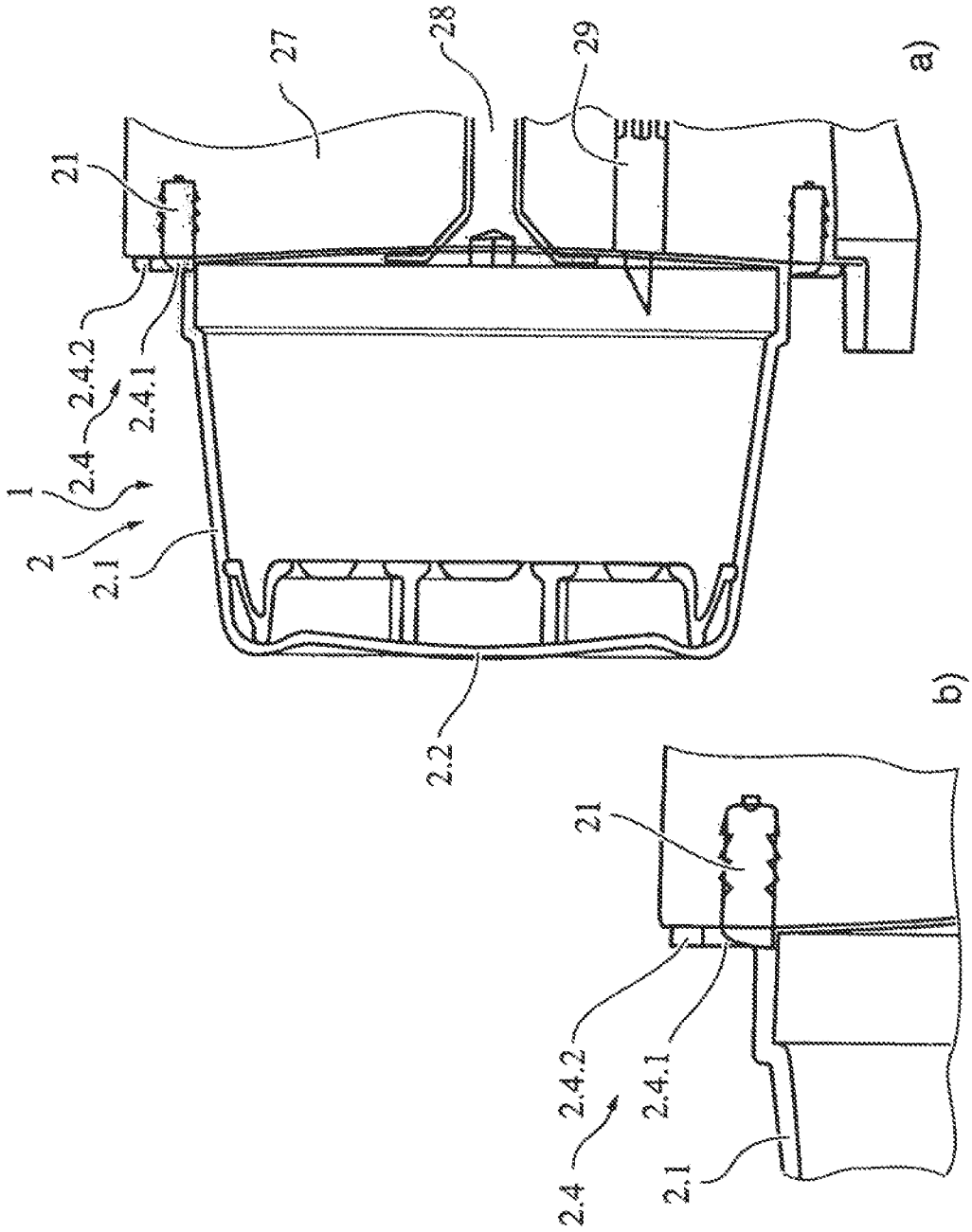


Fig. 16

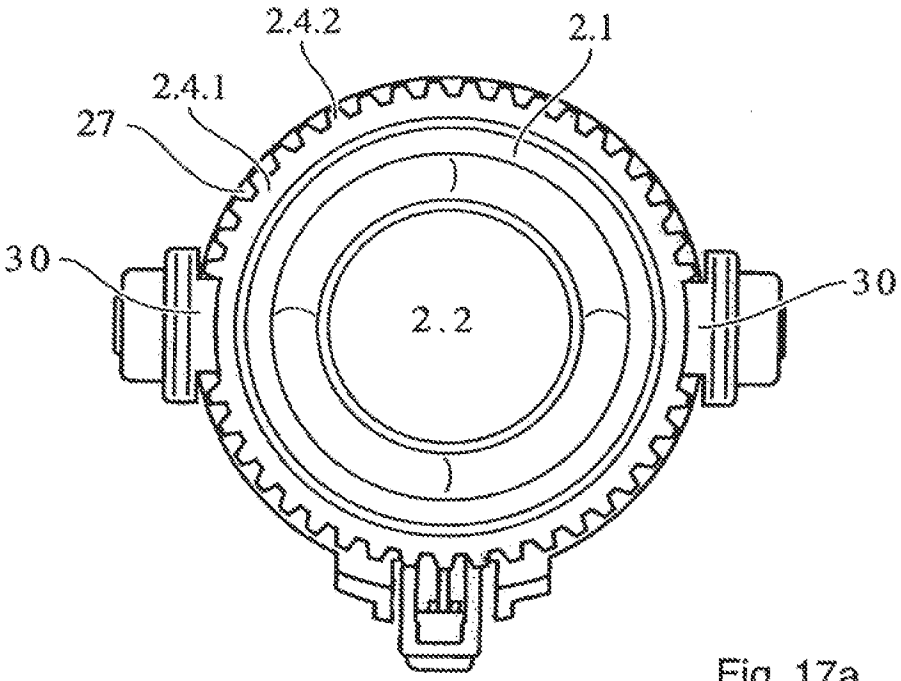


Fig. 17a

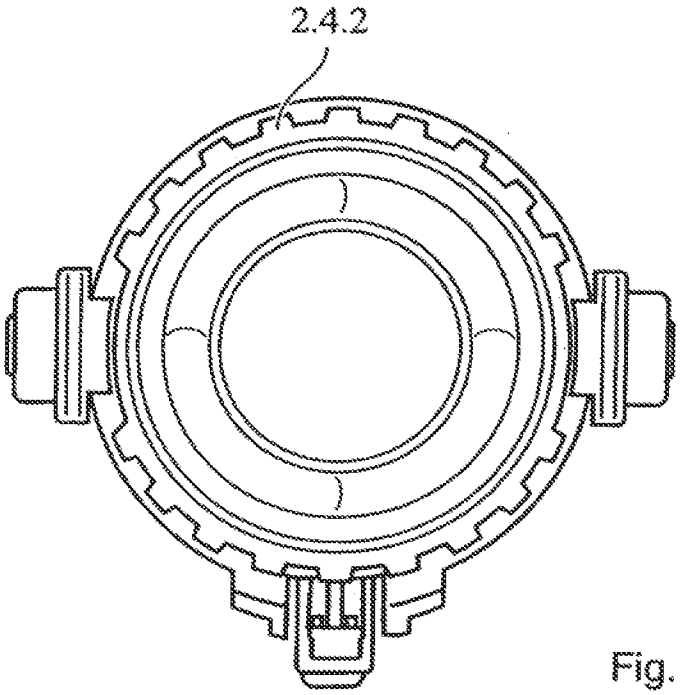


Fig. 17b

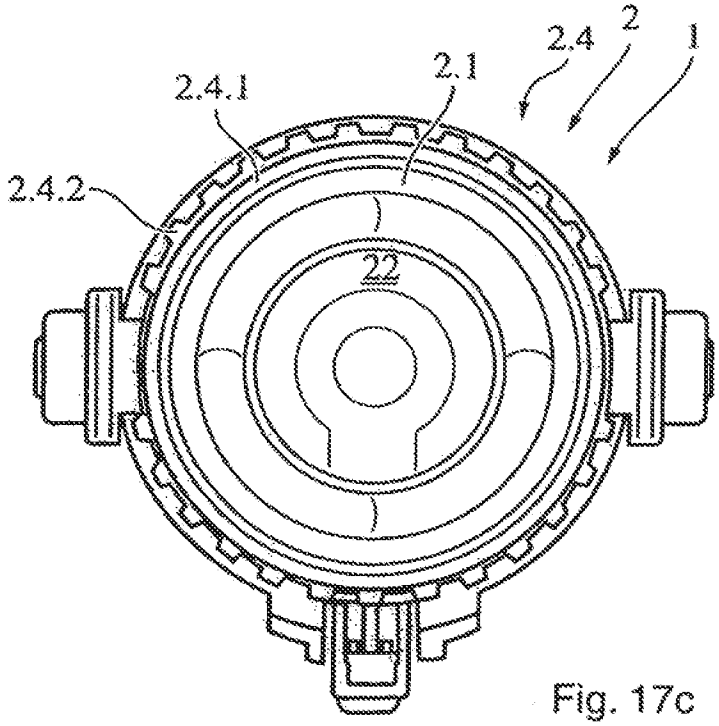


Fig. 17c

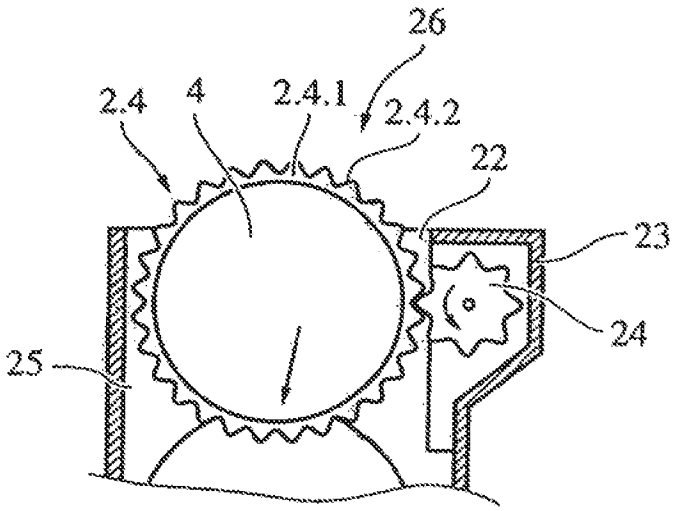


Fig. 18

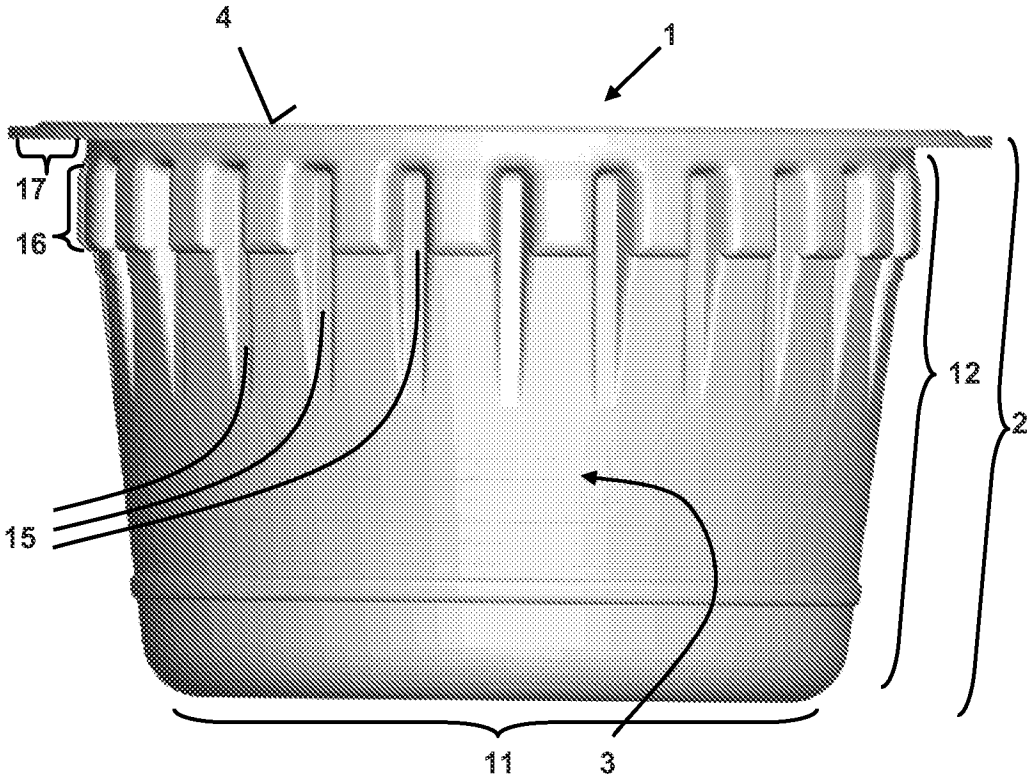


Fig. 19



Fig. 20

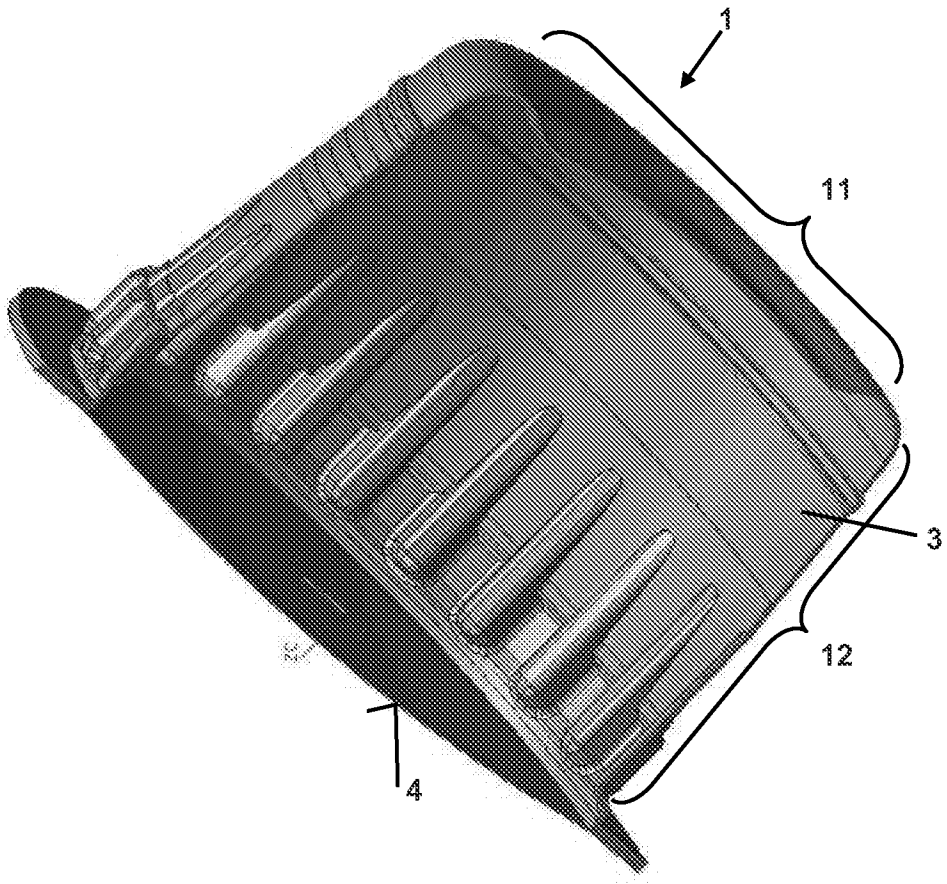


Fig. 21

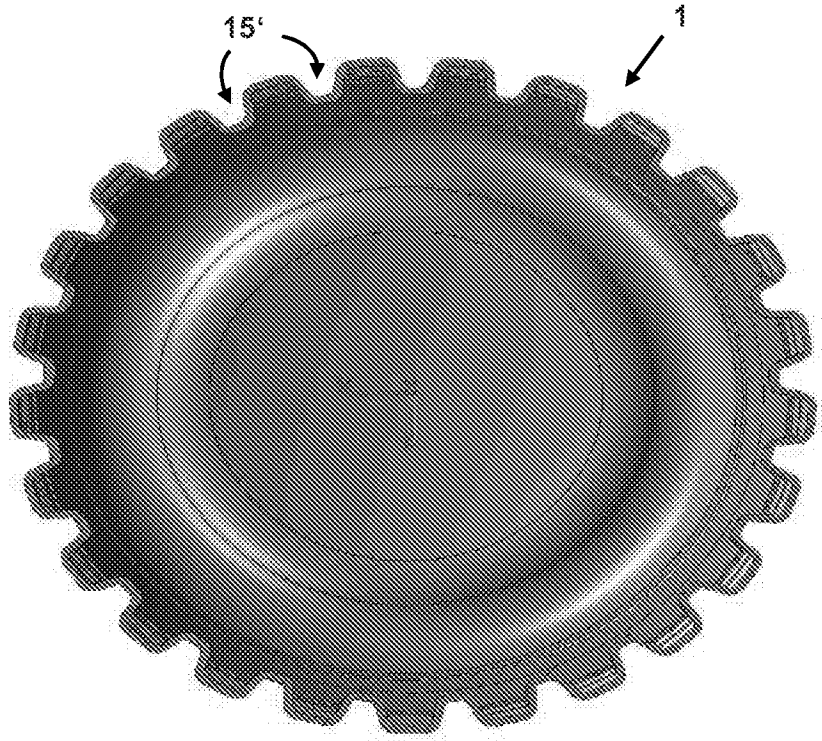


Fig. 22

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Practitioner's Docket No. 1859.029USC12 (KRU0022-WO-US-T13)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Marc Krüger	Art Unit: TBA
Application No.: TBA	Examiner: TBA
Filed: Herewith	Conf. No.: TBA

For: PORTION CAPSULE HAVING AN IDENTIFIER

Attorney Docket: 1859.029USC12 (KRU0022-WO-US-T13)

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRELIMINARY AMENDMENT

Prior to examining this application, please amend the specification and claims as follows. No new matter has been added.

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Amendments to the Abstract

Please replace the existing Abstract with the following New Abstract. No new matter has been added. The new Abstract is submitted to put the application into better condition/form for US examination.

A beverage system for making a beverage that includes a single-serve capsule and a beverage machine. The capsule has a cavity containing a beverage material; a flange; a cover fastened to a top side of the flange; and an individualization identifier on a bottom side of the flange. The beverage machine includes: a capsule receptacle having a wall structure to receive the capsule; an optical sensor/detector positioned outside of the wall structure to direct a beam through a portion of the wall structure to read the identifier; a pump that supplies water into the portion capsule only after the identifier is read by the sensor/detector; a mandrel to pierce the cover in a region that is offset from the central axis; and a seal that seals against the cover in a region between a peripheral edge of the flange and the region of the cover pierced by the mandrel.

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Amendments to the Specification

A Substitute Specification is provided herewith, by way of a Marked-Up Copy and a corresponding Clean Copy. No new matter has been added. The specification amendments are submitted to put the application into better condition/form for US examination. Entry of the Substitute Specification is respectfully requested.

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Amendments to the Drawings

Replacement Sheets are provided herewith. No new matter has been added. The drawing amendments on the Replacement Sheets are submitted to put the application into better condition/form for US examination. Entry of the Replacement Sheets is respectfully requested.

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Amendments to the Claims

1) – 9) (Cancelled)

10) (New) A beverage system comprising:

A) a single-serve capsule comprising:

i) a base element with a cavity, in which a beverage material is provided, the base element including a wall that is symmetrical about a central longitudinal axis thereof and having a closed, rounded bottom portion, the base element is free of a filter inside of the cavity;

ii) a flange extending outwardly from the base element, the flange having a top side and an opposing bottom side;

iii) a cover fastened to the top side of the flange, the cover is bowed outwardly in a central region of the cover relative to a peripheral region of the cover, the cover includes a region configured to be pierced at a location that is offset from the central longitudinal axis;

iv) a barrier layer to prevent moisture or aroma from escaping out of the single-serve capsule; and

v) an individualization identifier, which includes an optically detectable repeat pattern, provided on the bottom side of the flange;

B) a beverage machine comprising:

i) a capsule receptacle having a wall structure that receives the single-serve capsule, the capsule receptacle defined by a base portion and an annular portion laterally extending from the base portion along a plane that is transverse to a longitudinal axis of the capsule receptacle,

ii) a chamfered mandrel that pierces the cover at the location that is offset from the central longitudinal axis;

iii) an optical sensor/detector positioned outside of the base portion of the wall structure of the capsule holder and below the annular portion, which directs a beam through a portion of the wall structure to read the identifier on the single-serve capsule,

iv) a pump that supplies water into the portion capsule only after the individualization identifier is read by the sensor/detector;

v) a groove that is laterally offset from the chamfered mandrel; and

vi) a seal that is at least partially seated in the groove and configured to bear against a top side of the cover in a region between the peripheral edge of the cover and the region of the cover that is pierced by the chamfered mandrel.

11) (New) The beverage system according to claim 10, wherein the pump is rendered inoperable if there is a determination that the single-serve capsule is not compatible with the beverage machine.

12) (New) The beverage system according to claim 11, wherein the pump supplies the water into the single-serve capsule only after the identifier is compared to a stored reference.

13) (New) The beverage system according to claim 11, wherein the beverage machine comprises a waste container for the single-serve capsule to fall into.

14) (New) The beverage system according to claim 13, wherein the beverage machine comprises a pair of holding arms for guiding the single-serve capsule.

15) (New) The beverage system according to claim 12, wherein the base element comprises an exterior wall that includes a plurality of indentations arranged about the central longitudinal axis.

16) (New) The beverage system according to claim 15, wherein the cavity is defined by an inside wall that includes a ledge at an upper region thereof, the ledge projects from the inside wall towards the central longitudinal axis.

17) (New) The beverage system according to claim 15, wherein the identifier is located on the exterior wall of the base element.

18) (New) The beverage system according to claim 16, wherein the identifier is located on the exterior wall of the base element.

19) (New) The beverage system according to claim 18, wherein the base element is made of metal, a biodegradable material, or plastic.

20) (New) The beverage system according to claim 18, wherein the base element is deep drawn.

21) (New) A beverage system comprising:

A) a single-serve capsule comprising:

i) a base element with a cavity, in which a beverage material is provided, the base element including a wall that is symmetrical about a central longitudinal axis thereof and having a closed, rounded bottom portion, the base element having an exterior wall that includes a plurality of indentations arranged about the central longitudinal axis, the base

element is free of a filter inside of the cavity;

ii) a flange extending outwardly from the base element, the flange having a top side and an opposing bottom side;

iii) a cover fastened to the top side of the flange, the cover is bowed outwardly in a central region of the cover relative to a peripheral region of the cover, the cover includes a region configured to be pierced at a location that is offset from the central longitudinal axis;

iv) a barrier layer to prevent moisture or aroma from escaping out of the single-serve capsule; and

v) an individualization identifier, which includes an optically detectable repeat pattern, provided on the bottom side of the flange;

B) a beverage machine comprising:

i) a capsule receptacle having a wall structure that receives the single-serve capsule, the capsule receptacle defined by a base portion and an annular portion laterally extending from the base portion along a plane that is transverse to a longitudinal axis of the capsule receptacle,

ii) a chamfered mandrel that pierces the cover at the location that is offset from the central longitudinal axis;

iii) an optical sensor/detector positioned outside of the base portion of the wall structure of the capsule holder and below the annular portion, which

directs a beam through a portion of the wall structure to read the identifier on the single-serve capsule,

iv) a pump that supplies water into the portion capsule only after the individualization identifier is read by the sensor/detector;

v) a groove that is laterally offset from the chamfered mandrel; and

vi) a seal that is at least partially seated in the groove and configured to bear against a top side of the cover in a region between the peripheral edge of the cover and the region of the cover that is pierced by the chamfered mandrel.

22) (New) The beverage system according to claim 21, wherein the cavity is defined by an inside wall that includes a ledge at an upper region thereof, the ledge projects from the inside wall towards the central longitudinal axis, and wherein the cavity is free of a filter.

23) (New) The beverage system according to claim 22, wherein the pump supplies the water into the single-serve capsule only after the identifier is compared to a stored reference, and the identifier is located on the exterior wall of the base element.

24) (New) The beverage system according to claim 23, wherein the beverage

machine comprises a waste container for the single-serve capsule to fall into and a pair of holding arms for guiding the single-serve capsule.

25) (New) The beverage system according to claim 24, wherein the base element is made of metal, a biodegradable material, or plastic.

26) (New) The beverage system according to claim 25, wherein the base element is deep drawn.

27) (New) The beverage system according to claim 22, wherein the base element and/or the cover are made of aluminum.

28) (New) The beverage system according to claim 22, wherein the base element has an exterior wall region with an electrically conductive section, and the identifier is located on the exterior wall region.

29) (New) The beverage system according to claim 28, wherein the identifier has a plurality of matte and reflective zones, and the base element and the cover are made of the same material.

REMARKS

Amendments to the Abstract

A New Abstract is provided herewith. No new matter has been added. The new Abstract is submitted to put the application into better condition/form for US examination. Entry of the New Abstract is respectfully requested.

Amendment to the Drawings

Replacement Sheets are provided herewith. No new matter has been added. The drawing amendments on the Replacement Sheets are submitted to put the application into better condition/form for US examination. Entry of the Replacement Sheets is respectfully requested.

Amendment to the Specification

A Substitute Specification is provided herewith, by way of a Marked-Up Copy and a corresponding Clean Copy. No new matter has been added. The specification amendments are submitted to put the application into better condition/form for US examination. Entry of the Substitute Specification is respectfully requested.

Amendment to the Claims

Claims 1-9 are cancelled and claims 10-29 are new. No new matter has been added. The claim amendments are submitted to put the application into better condition/form for US examination. Entry of the claim amendments is respectfully requested. Applicant believes these claims are patentable. Accordingly, Applicant submits that the present application is in condition for allowance, and respectfully requests that the Examiner pass the case to issue at the earliest convenience.

Should the Examiner have any questions, or wish to further discuss this application, Applicant requests that the Examiner contact the undersigned at (248) 292-2920.

If for some reason Applicant has not requested a sufficient extension and/or has not paid a sufficient fee for this response and/or for the extension necessary to prevent the abandonment of this application, please consider this as a request for an extension for the required time period and/or authorization to charge our Deposit Account No. 50-1097 for any fee which may be due.

Respectfully submitted,

Date: December 10, 2021

/Paul J. Palinski/

Paul J. Palinski, Reg. No. 71,080
The Dobrusin Law Firm, P.C.
Customer No. 25215
29 W. Lawrence St., Suite 210
Pontiac, Michigan 48342
(248) 292-2920

PORTION CAPSULE HAVING AN IDENTIFIER

Field

[0001] These teachings relate to a beverage system for making a beverage having a single-serve capsule and a beverage machine.

Background

[0002] The present invention relates to a portion capsule for producing a beverage, comprising a base element having a cavity in which a beverage raw material is provided and which is closed by a membrane fastened to the base element.

[0003] Such capsules are well known and are being launched onto the market in abundant variety. Since these capsules are often quite similar, it is possible that the manufacturer's capsules are used in a coffee machine designed by another manufacturer, although they are not suited for it. This may result in significant security issues and/or the coffee machine may be damaged.

[0004] The object of the present invention is therefore to provide a portion capsule which only is suitable for a specific coffee machine.

SUMMARY

[0005] The object is accomplished according to the present invention by a portion capsule for producing a beverage, comprising a base element having a cavity in which a beverage raw material is provided and which is closed by a membrane fastened to the base element,

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wherein it has an identifier, which allows to individualize the respective portion capsule.

[0006] The present invention relates to a capsule for producing a beverage or foodstuff, comprising a base element having a cavity in which a beverage raw material is provided. Such capsules are, for example made of plastic, natural materials and/or biodegradable materials and substantially have a base element, in particular a deep-drown base element, i.e. it is substantially designed frustoconically or cylindrically. The beverage raw material is arranged within the portion capsule's cavity and is extracted and/or dissolved in a liquid, in particular water. After the beverage raw material has been filled into the cavity the base element is usually sealed by a membrane. In particular the membrane is localized on the opposite side of the base element's bottom. The membrane can be made of the same or different material as the base element and is substantially attached to the base element using a sealing and/or an adhesive bonding. Additionally, the cavity could contain one or several built-in elements, such as, for example a filter, a non-woven, a felt, a shut-off device and/or something similar to those. For the case that a non-woven and a felt are arranged within the cavity, they are interconnected preferably. The non-woven and/or the felt can be made of several layers in such a way that the layers may differ in the kind of its starting material and/or its preparation. Moreover, the membrane and/or the bottom can be provided with a plurality of recesses (holes).

[0007] According to the present invention, it is provided that the portion capsule has an identifier that allows to individualize the respective portion capsule. In the context of this invention individualizing means that the respective portion capsule can be assigned to a group of capsules that are suitable for the coffee machine preferably. It is not necessary

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that the coffee machine is able to specify and/or identify the portion capsule. In fact, it is much more important that the coffee machine associates the portion capsule with a group of portion capsules, which is suitable for the coffee machine. In particular, individualizing means that those portion capsules that are not appropriate for the coffee machine cannot be inserted into and/or directly fall through the holder, which is designed for the portion capsules in the coffee machine, and/or the coffee machine operates only with the corresponding portion capsules. Preferably a sensor/detection system handles the identifier and compares it with a stored reference substantially. Preferably, the coffee machine, in particular the water-providing- pressure pump, will be activated if the detected identifier matches with the reference. Otherwise, the coffee machine will not start operating. Preferably the detection system is placed in the region of the coffee machine's media chute designed for the portion capsules. According to another preferred embodiment of the invention, the detection system may be placed in the region of the brewing chamber. Another possible embodiment of the invention provides that the identifier prevents portion capsules from inserting into the coffee machine. Alternatively, or additionally, means, in particular mechanical means, more preferably, one or more gearwheels, may be added to the media chute in order to guarantee that incorrect portion capsule cannot be inserted into the coffee machines by passing the media chute.

[0008] Preferably, the identifier is composed of surface areas having different optical properties, for example reflection. These surfaces may be localized on the membrane, the side wall and/or the bottom of the portion capsules. Preferably, the portion capsule has at least two areas which differ in their optical properties, for example the reflection characteristics.

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[0009] The detection of a recess and/or a bulge is also preferred. Preferably, recess and bulges alternate and/or at least two recesses or bulges are separately placed from each other. Especially it is possible that the recess and/or the bulge form a gearwheel that is attached to the outer border and/or at least partially extends to the wall region of the portion capsule. The recess and/or bulge may be produced by any shaping method, for example by deep drawing, preferably.

[00010] Furthermore, the recess may be realized by removing material. In particular, the material's removal can be accomplished by punching or using a laser on condition that this processing does not damage a barrier layer placed in the portion capsule's material, which prevents moisture or aroma from escaping out of the portion capsule and/or water vapor or oxygen enters the capsule. The reading of the identifier, which is encoded in the recess and/or bulge, may be a result from a mechanical and/or optical method, for example. Alternatively, or additionally, the identifier can be used to avoid that the portion capsule is inserted into the coffee machine. This applies in particular to the media chute. For example, it is possible to design a portion capsule comprising a ring gear that is placed on its circumference and is compatible with another ring gear, which is placed in the media chute. If the media chute's ring gear only revolves for a corresponding ring gear of the portion capsule and its revolving allows the portion capsule to pass, only portion capsules equipped with the proper ring gear will pass the insertion lock.

[00011] According to a further subject matter of a preferred development of the

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present invention, the identifier may be included in the membrane. Preferably, the identifier is a layer or partial layer of the membrane. Such identifiers may be an optically detectable material, for example a fluorescent material. Furthermore, the identifier may be designed with layers made of metal or ferrous metal or stripes made of metal or ferrous metal in or on the membrane, respectively.

[00012] Preferably the identifier is a machine-readable imprint. This is realized with a print in food approved color, preferably. Fluorescent materials like paper or print materials, whose optical properties change under the influence of temperature, are favored also. Preferably the print is a barcode, a logo or a repeat pattern.

[00013] According to a further subject matter of a preferred development of the present invention, the identifier is an electrically conductive section, which can be placed all over the portion capsule, but is localized on the side wall, the edge and/ or the floor preferably. The electrically conductive section, which is inserted into the coffee machine, can become part of an electric circuit, and causes therefore a measurable change, which leads to the identification of the respective portion capsule. In a further preferred embodiment, the identifier is a section made of a ferromagnetic material.

[00014] Another construction version favors a RFID chip being the identifier.

[00015] If the portion capsule is customized according to the invention, portion capsules that are not in line with the coffee machine will be prevented from inserting into the coffee machine. Furthermore, it is possible that the identifier allows to

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identify the portion capsule located in the brewing chamber in such a way that the production process of beverage or food may be controlled, for example by adjusting the temperature, the pressure and/or the amount of water.

[00016] According to a further subject matter of a preferred development of the present invention, the portion capsule's material is weakened in the bottom area caused by a selective material removal, for example by using a laser. The weakening is provided for piercing the portion capsules using a mandrel. This procedure is needed for the beverage's preparation. Since the material is weakened in the section, which is treated with a laser and is supposed to be pierced using the mandrel, the degree of necessary force for piercing the portion capsule is reduced. The mandrel of such coffee machines is usually equipped with a force limitation that limits the force, which is dedicated for pressing the mandrel against the portion capsule's bottom. This preparation avoids that portion capsules having no appropriate weakening can be used in such a coffee machine. Consequently, the weakening represents another kind of identifier.

[00017] According to a further subject matter of a preferred development of the present invention, the portion capsule has an edge region, which is preferably attached to the base element. Preferably, the edge is located opposite of the base element's bottom area. After the raw material has been filled in the portion capsule, a membrane can be attached to this edge region, for instance. Moreover, the edge can also designed for guiding the portion capsule into the chute in order to position the portion capsule in the brewing chamber properly. Simultaneously, it is possible to use the surface of the edge for stopping and/or sealing.

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[00018] Preferably provision is made for the portion capsule to have means for fit locking, friction locking and/or detection in the edge region. The means for fit locking and/or friction locking may be used to activate a complementary mechanism, which is located in the coffee machine, in order to allow inserting the portion capsule into the coffee machine and/or starting a sensor, like a gearwheel, that transmits a signal to a control unit depending on whether the portion capsule corresponds to the coffee machine or not. Alternatively, or additionally, a detector may identify the mean for fit locking, friction locking and/or detection in order to check that the portion capsule is suitable to the respective coffee machine.

[00019] Preferably, the means for fit locking, friction locking and/or detection is a gearwheel or a gearwheel segment, which are located, in particular, in the outer area of the edge region. The teeth of the gearwheel or the gearwheel segment may be shaped in any commonly used form, which is known, for example, by an expert from gear manufacturing. Preferably, it is provided that these teeth are triangular, rectangular, square, or wavy.

[00020] Preferably, there is a sealing surface, that is arranged on the interior side relative to the gearwheel or the gearwheel segment.

[00021] Another and preferred state-of-the-art technology is a portion capsule for producing a beverage, comprising a base element substantially designed frustoconically or cylindrically, having a cavity in which a beverage raw material is

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provided and which is closed by a membrane fastened to the base element with the base element having a wall region and the base element having a bottom area, which is preferably located opposite to the membrane, with the wall region having several grooves and the grooves which are located between membrane and bottom area covering the wall region along its height at least partially. The grooves may be also located in the edge region, in particular on the outer area of the edge region.

[00022] This portion capsule has the advantage over the portion capsule according to the state-of-the-art technology that, for instance, the grooves reinforce the base element's wall region. On the one side, these grooves make the portion capsule more stable towards mechanical forces and prevent the portion capsule from deformation and buckling, in particular. The arrangement of the grooves, which are located at the wall region, additionally improves the performance of the portion capsule while the extraction liquid flows through it in the brewing chamber, since the arrangement of the grooves, in particular those partially expending over the wall region between membrane and bottom area, increase quality and reliability of the extraction process significantly. According to the invention another advantage is that the base element's thickness can be reduced, because the use of grooves improves the physical stability. The production of the portion capsule is therefore much less expensive and more environmentally friendly. On the other side, the grooves reduce or avoid the contact between the portion capsule's wall region and the wall of the brewing chamber. As a result, ejecting or removing the portion capsule from the brewing chamber is made easier. Another advantage of using a plurality of grooves is that the stream of the extraction liquid, which flows along the base element in the cavity, can be optimized by

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choosing a grooves' structure that is able, for example, to generate on the one hand a better or stronger turbulence in the extraction liquid or on the other hand a more uniform (laminar) flow of the extraction liquid, in the wall region. The control of the liquid may be obtained by the structure of the grooves itself or by using simple means additionally. A stronger turbulence compared to the one known in the state-of-the-art has the advantage that no unintended and casual main streams are formed in the raw materials. Instead, the extraction liquid equally flows through the raw material in all of the volume. Thus, the extraction process is much more efficient and can be controlled more precisely and reproducibly.

[00023] In particular, the raw material may be coffee powder (especially ground roasted coffee), chocolate powder, milk powder, tea, or the like. Alternatively, it is conceivable that the raw material is a beverage's extract, such as instant coffee for example.

[00024] In particular, the grooves are recesses and bulges, which are preferably directed along a main extension and are preferably extended along the wall portion or the periphery of the edge region. More preferably, the grooves are formed as webs and/or notches. A gearwheel, for instance, may be obtained by the grooves. Therefore, the grooves are part of the base elements' wall, optionally located on the inner side facing to the cavity and/or on the outside facing away from the cavity.

[00025] According to a preferred embodiment of the present invention, it is provided that the grooves form an identifier that allows individualizing the portion

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capsule. In the context of this invention individualizing preferably means that the respective portion capsule can be assigned to a group of capsules that are suitable for the respective coffee machine or the machine producing a beverage. It is not necessary that the coffee machine or the device for producing a beverage is able to specify and/or identify the portion capsule. It is more important that the device for producing a beverage, in particular a coffee machine, associates the portion capsule with a group of portion capsules, which is appropriate for the respective device for producing a beverage, in particular a coffee machine. In particular, individualizing means that those portion capsules that are not appropriate for the coffee machine (or the device producing the beverage) cannot be inserted into and/or directly fall through the holder, which is designed for the portion capsules in the coffee machine (or the device producing the beverage), and/or the coffee machine (or the device producing the beverage) operates only with corresponding portion capsules ("proper portion capsule"). In particular, individualizing means that the coffee machine or the device producing the beverage will not operate properly in the intended use, if the used portion capsule is not customized according to the invention. Preferably, a sensor/detection system, attached to the coffee machine or the device producing the beverage, records the identifier and substantially compares it with a stored reference. In particular, it is possible that such an identification process is based on a mechanical fitting, especially a fitting of a gearwheel or of a contour comparable with a gearwheel, which is attached to the device producing the beverage or the coffee machine and interacts with the portion capsule. It is preferred that the device for producing the beverage or the coffee machine only will operate, if the identifier matches to the reference or the mechanical fittings match with each other. In this case the device for producing the beverage particularly starts to operate, especially activates a pressure or water pump. The

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mean for detection or mechanical fitting is preferably located in the region of the media chute or in the region of the device for producing the beverage. Alternatively, the identifier or the mechanical fitting may avoid that an unsuitable portion capsule is inserted into the device for producing the beverage. A portion capsule, which is designed in accordance with the invention, makes it possible that a portion capsule that is not designed for the device for producing a beverage cannot be inserted into it. Additionally, the identifier allows that the device for producing the beverage, especially the coffee machine, may specify the sort of the portion capsule and thereby control the production process of beverage and food by adapting, for example, the pressure, the temperature and/or the amount of water.

[00026] According to a further preferred embodiment of the present invention, it is provided that at least a part of the grooves and at least in a subarea parallel to the main plane of the membrane is gearwheel shaped.

[00027] According to the present invention, it is an advantage that it is possible to increase the stability of the portion capsule's wall region, to realize improved turbulences of the extraction liquid and thereby to improve the extraction's process under the same conditions, for example, such as material thickness and the like. Another advantage is that it is easy to generate a mechanical identifier or a mechanical fitting that matches with a fitting tool that belongs to the device for producing a beverage. According to the invention it is an further advantage that, for example, a gearwheel, which is attached to the device for producing a beverage and is, for example, located in the region of the media chute or similar, can possibly interacts with the gearwheel's contour of the portion capsule. In this

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way it is possible to generate a mechanical fitting that allow to individualize the portion capsule as a proper one and/or to specify the sort of portion capsule and/or to rotate the portion capsule about an axis of rotation, that is perpendicular to the membrane's main plane, by using the gearwheel's arrangement. Such an embodiment of the invention makes it possible that the portion capsule is always opened with the device for producing a beverage on the same spot (with respect to its angular position) and therefore the raw material is extracted on the same manner. Moreover, the grooves prevent the portion capsule from being inserted into the coffee machine.

[00028] In a preferred version of the invention, it is provided that there is a flange/edge region being averted from the bottom region, for fixing the membrane to the base element, where in the wall region between flange/edge region and bottom region preferably has a border and the grooves are being preferably extended to this border.

[00029] Because of this it is another advantage according to the invention that on the one hand the wall region can be constructed in a stable and reinforced manner and on the other hand the gearwheel shaped contour of the grooves, located at the wall region, is able to absorb a relative high load. With that it is possible that the portion capsule can be rotated easily and without any damaging of the portion capsule within the device for producing a beverage.

[00030] Preferably, the base element's diameter is enlarged in the border's region compared to the wall region, which range from the border to the bottom region.

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[00031] This gives rise to the advantageous possibility to stack portion capsule or portion capsules' base elements easily and robustly.

[00032] Moreover, it is preferred that at least a part of the grooves are gearwheel shaped and at least a plane, which is at least partially gearwheel shaped, is parallel to the membrane in such a way that the gearwheel shaped contour expands over the borders or the flange/edge region.

[00033] Further preferred versions of the present invention relate to portion capsules that implement one or more of the following characteristics:

- the base element tapers in the direction of the flange in the border's region,
- the grooves directed toward the bottom region expand over the border's region,
- the grooves approximately cover 20% -80%, preferably 40% - 60% of the wall region, which is placed between the border and the bottom region,
- the grooves are constructed in such a way that the wall region is reinforced and/or the grooves causes an extraction liquid's turbulence in the cavity.

[00034] Other preferred versions of the present invention relate to portion capsules that are manufactured in such a way that the ratio of the diameter of that wall region of the base element which adjoins the flange to the diameter of the flange is between 0.85 and 0.89, and in particular substantially 0.87.

[00035] In a preferred version, the wall region's diameter, which is adjacent to

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the flange, is 39 millimeters and the flange's diameter is 45 millimeters. Another advantageous version of the invention prefers a base element having a thicker wall region in the border's region compared to the wall region between bottom region and flange. Since the portion capsule's design, which contains grooves in the wall region, improves its stability, it is possible to save material by manufacturing the portion capsule and therefore to reduce cost and energy required for manufacturing the portion capsules.

[00036] According to the invention it is further provided that a filter element is arranged into the cavity. Such a filter element divides the cavity into a first region for accommodating the beverage raw material and into a second region for accommodating a beverage extract. In particular, it is provided that the filter element is made of a non-woven material.

[00037] According to a further subject matter or a preferred development of the present invention the portion capsule according to the invention is intended for the preparation of a hot beverage. In the following the invention is explained based on the Figures 1 - 22. These explanations do not restrict the general idea of the invention.

Brief Description of the Drawings

[00038] **Figures 1A and 1B** show a portion capsule containing sections that differs optically.

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[00039] **Figures 2A, and 2B** show a portion capsule containing a barcode.

[00040] **Figure 3** shows a portion capsule with recesses and bulges.

[00041] **Figure 4** shows a portion capsule containing sections that differs optically.

[00042] **Figure 5** shows a portion capsule with a key function.

[00043] **Figure 6** shows a portion capsule's wall that is electrically conductive.

[00044] **Figure** 7 shows a portion capsule's wall containing sections that differs optically.

[00045] **Figure 8** shows an enlarged pot construction of the portion capsule's wall.

[00046] **Figure 9** shows an edge region that is electrically conductive.

[00047] **Figure 10** shows a portion capsule containing a bottom that is electrically conductive.

[00048] **Figure 11** shows an embodiment containing a layer that can be detected by a metal detector.

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[00049] **Figure 12** shows a metallic strainer.

[00050] **Figure 13** shows a portion capsule containing a ferromagnetic section.

[00051] **Figure 14** shows a portion capsule containing a barcode.

[00052] **Figure 15** shows a portion capsule containing a section, which is electrically conductive, in the wall.

[00053] **Figures 16A and 16B** show a portion capsule with a gearwheel placed in the brewing chamber.

[00054] **Figures 17A, 17B, and 17C** show different embodiments of the portion capsule according to Figures 16A and 16B.

[00055] **Figure 18** shows the portion capsule according to the Figures 16 A and 16B and Figures 17 a-c, when the portion capsule is fit locking with a gearwheel.

[00056] **Figures 19 and 20** show a schematic view of a portion capsule according to an embodiment of the presented invention.

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[00057] **Figures 21 and 22** show two sectional views of the portion capsule according to an embodiment of the presented invention.

Detailed Description

[00058] **Figures 1A and 1B** show a portion capsule 1 comprising a base element 2 that has a wall region 2.1 and a bottom area 2.2. The wall region 2.1 and the bottom area 2.2 define a cavity 3, which may include the raw material and perhaps a built-in element. After filling, the cavity 3 is sealed by a membrane 4, which is preferably attached to the edge region 2.4 of the base element using seal or glue. This portion capsule can be inserted into a brewing chamber 12, with a liquid, in particular water, flowing through it. During this process, the raw material is extracted or dissolved and therefore the beverage is produced. According to the invention the portion capsule has only one identifier that allows to determine whether the respective portion capsule goes with the coffee machine's brewing chamber 12 and the parameters for processing are chosen properly. If it is not the case, significant security issues arise. Inserting the wrong portion capsule, for example, endangers the brewing chamber's tightness. In this case hot water can be discharged under high pressure and therefore compromise the user's safety. Otherwise, it is also possible that inserting the wrong portion capsule damages the coffee machine. In this example the identifier is represented by several raised areas 8, which differ in reflection properties from the sections between the raised areas. As shown by the arrows the bulges are passed by a mean for detection 13 (here: an optical detector) that is able to differentiate between the unequal sections 5, 6 having different optical properties such as, for example, reflection. Switching between the different sections or the number of bulges represents the identifier. After the identifier has been read out the

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identifier is compared to a stored reference. If the identifier agrees with the reference, the coffee machine will start operating. Particularly the pump, which is for example responsible for pushing hot water through the brewing chamber, will not start operating, if the identifier does not agree with the reference.

[00059] All the remarks concerning the identifier apply to all the examples.

[00060] **Figures 2A and 2B** show another embodiment of the portion capsule 1 according to the invention. The portion capsule 1 comprises a base element 2 that has a wall region 2.1 and a bottom area 2.2. Here the portion capsule 1 has a barcode 50 placed in the area of the membrane's 4 top surface. This barcode may be printed by material removal or may be generated by a medium that is integrated in the foil and can be detected optically such as a fluorescence agent. Alternatively, metal rings may be part of the foil or attached to the foil. The barcode's section may be made of a ferromagnetic material. As shown by the arrow 15 the barcode 50 alternatively can be attached to the base element's edge region being averted from the membrane 4. Such a barcode is read out by a detector 13 placed, for example, in the media chute. The barcode represents the identifier according to invention.

[00061] **Figures 3A and 3B** show another embodiment of the portion capsule 1 according to the invention. In the present case the identifier comprises recesses and bulges 7, 8, which result from material removal or reshaping the portion capsule as shown here by the example of the portion capsule's wall 2.1. In the present case, recesses and bulges interact with a means for detection 13, which operates like a key, wherein the coffee

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machine only start operating, when all elements 14 are placed in the respective recess 7. Therefore, an electric circuit may be changed or especially closed.

[00062] **Figure 4** shows an embodiment of the portion capsule being substantially identical to the embodiment illustrated in Figure 1. As an alternative version of the invention, the figure additionally shows that the unequal sections 5, 6 differing in terms of optical properties can be attached to the cover foil, for example in the form of a barcode.

[00063] **Figure 5** shows an embodiment of the portion capsule being substantially identical to the embodiment illustrated in Figure 3 that includes recesses 7 and bulges 8. Again, the recesses represent the key bit. The coffee machine only will start operating, if the recesses interact with the corresponding bulges and therefore an electric circuit is changed respectively. The placement of such a system is not restricted to the brewing chamber. For instance, the system may be placed in the portion capsule's media chute.

[00064] **Figure 6** shows a version of the invention that includes a base element 2 and an electric material forming a surrounding ring 2.3, which preferably has a raised form. The electrically conductive material is scanned by means for detection 13 having electric sliding contacts, which are placed in the media chute and form electric contacts of an electric circuit, while the portion capsule is inserted.

[00065] **Figure** 7 shows an embodiment of the portion capsule being substantially identical to the embodiment illustrated in Figure 6, in which it is provided that the ring area has reflective 21 or mat 22 sections, for example in form of a covering, and allows a

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read-out by means for detection 13 for optical detection, which are placed in the media chute and are part of a control current, while the portion capsule is inserted.

[00066] **Figure 8** shows a relative broad and raised ring 2.3 which represents the identifier. The media chute is equipped with a corresponding vacancy that tests whether the portion capsule has the proper identifier. The broad ring is scanned, for example, by means for detection 13 having mechanical sensors, which are placed in the media chute and close the contacts of an electric circuit, while the portions capsule is inserted.

[00067] **Figure 9** shows another embodiment of the portion capsule according to the invention. In the present case an electrically conductive coat 10 is integrated in the edge region's back and is scanned by electric sliding contacts, which are placed in the media chute and form electric contacts of an electric circuit, while the portion capsule is inserted.

[00068] **Figure 10** shows another embodiment of the portion capsule according to the invention. In the present case the portion capsule has an electrically conductive coat 10 at the bottom area 2.2 such as a conductive varnish layer or an aluminum foil. The coat is scanned by means for detection 13 having electric sliding contacts, which form electric contacts of an electric circuit, while the portion capsule is inserted.

[00069] **Figure 11** illustrates a version of the portion capsule having also an electrically conductive coat 10 that is placed on its bottom 2.2 and is identified by a means for detection 13 having a metal sensor, which is placed in the chute and, for example,

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detects inductively, while the portion capsule is inserted.

[00070] The embodiment of the invention shown in **Figure 12** has a built-in element made of metal (here a strainer 19) that is recognized as identifier by a means for detection 13 having a metal detector.

[00071] The version of the invention shown in **Figure 13** includes a ferromagnetic material 20 placed at the portion capsule' bottom. The identifier is scanned, by means for detection 13 for example, by a magnet, which is placed in the chute, while the portion capsule is inserted. The ferromagnetic material acts as identifier.

[00072] **Figure 14** shows another embodiment which includes a barcode placed in the region of the cover foil. The portion capsule includes a flange 17.

[00073] According to the embodiment shown in **Figure 15** a metallic ring 11 is integrated in the wall region 2.1 and closes means for detection 13 having an electric circuit placed in region of the brewing chamber.

[00074] **Figures 16A and 16B** show another embodiment of the portion capsule 1 according to the invention. The illustrated portion capsule features a base element 2 that is basically conical- shaped in the present case and has a bottom region 2.2 and a wall region 2.1. It is provided that the base element contains the raw material and, if necessary, build-in elements like a filter as illustrated here. The expert knows that the build-in element may also include other build-in elements. A flange 17 /edge region 2.4, which is

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preferably circular and, for example, may be used for sealing a cover foil 4 to it, is attached to the end of the base element, which is placed opposite to the bottom. The flange/edge region has means for fit locking, friction locking and/or detection 2.4.2 in the outer area (outer circumference). As especially shown in the Figures 17a - 17c the means for fit locking, friction locking and/or detection 2.4.2 is, in the present case, a gearwheel that is formed by several recesses/bulges evenly arranged in the edge region. Preferably, it is provided that the edge region has a sealing surface 2.4.1, which sealingly interacts with the seal 31 attached to the brewing chamber 12, on the interior side of the gearwheel. The sealing 31 makes sure that the water coming from a water inlet 28 flows through the portion capsule by passing an opening, which has been made by a mandrel 29, than around it.

[00075] **Figures 17A, 17B, and 17C** show different embodiments of the means for fit locking, friction locking and/or detection 2.4.2. According to the version shown in Figure 17A, the gearwheel has forty-five teeth. According to the version shown in Figure 17B or 17C, the gearwheel has twenty-two or twenty-nine teeth, respectively. The expert knows that the manufactured teeth can be shaped arbitrarily. All Figures 17A, 17B, and 17C demonstrate how the portion capsule 1 can be held by a part of the brewing chamber 12 using two holding arms 30. The holding arms interact with the means for fit locking, friction locking and/or detection 2.4.2. If they are not available, the holding arms will not hold the portion capsule and the portion capsule will not be inserted into the brewing chamber and will fall through it into a dropping box instead. The portion capsule has a base element 2, a wall region 2.1, a bottom area 2.2, a sealing surface 2.4.1, and an edge region 2.4.

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[00076] **Figure 18** shows the means for fit locking, friction locking and/or detection 2.4.2 along with mean for fit locking 24, which is attached to the coffee machine and is represented by a pinion here. It is provided that the mean for fit locking 24 is placed in the media chute or insertion shaft 26 of an insertion shaft housing 23 having a port for inserting the portion capsule in the coffee machine. The distance between the inner wall 25 of the portion capsule 1 and the mean for fit locking 24 represented by the pinion 24 are designed in such a way that the portion capsule only will pass the port, if the means for fit locking, friction locking and/or detection 2.4.2 is formed complementary to the teeth of the mean for fit locking 24 represented by the pinion. Only in this case the portion capsule rotates the mean for fit locking 24 represented by the pinion 24 while it falls. Both rotating and falling are represented by arrows in the figure. The portion capsule needs the rotation for passing the media chute's port and falling in the intended position afterwards. If the portion capsule has no or wrong mean of fit locking, it will be impossible to place the portion capsule by passing the media chute in the intended position. Additionally, or alternatively, it is provided that the mean for fit locking 24 represented by the pinion has a pick-up that detects the rotary movement and transmits it to a control unit. If the rotation at least corresponds a defined rotating element, the control unit will activate, for example, the brewing unit. The expert knows that the portion capsule's border may include means for friction locking that interacts with a mean, for example an edge, and shift it in such a way that the shift is detected and therefore the brewing chamber is activated. The portion capsule 1 has a cover foil 4 and a sealing surface 2.4.1.

[00077] The expert moreover knows that a sensor, being for example a camera,

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which detects the form of the means for fit locking, friction locking and/or detection 2.4.2, may be installed in the media chute. In the present case the form and/or the distance between the teeth may be detected. If the proper portion capsule was inserted, a resulting signal could be transmitted to a control unit, which activates the brewing chamber.

[00078] **Figure 19** schematically shows a view of another portion capsule's version according to an embodiment of the present invention. **Figure 20** illustrates the same portion capsule from a different point of view schematically. Figure 19 shows the front view of the portion capsule. Figure 20 shows the portion capsule viewed from an angle below. In all figures the portion capsule is labeled with the reference sign 1. The portion capsule substantially has a frustoconically shaped base element 2, which is formed similar to a pot and encloses a cavity 3. The cavity 3 is sealed by a membrane 4. Since the viewing direction of Figure 19 is essentially parallel to the plane, in which the membrane is located, the membrane is at the upper edge of the portion capsule. In particular, the base element 2 comprises a soft, semi-rigid or rigid plastic material which is deep-drown, preferably. The membrane comprises a foil made of plastic material or aluminum. Preferably the base element has a circumferential mounting flange 17 in the region of the membrane, with the membrane and the mounting flange 17 being firmly bonded, in particular by welding or gluing. Preferably a filter element, which is not specifically depicted in the figures, is placed within the base element 2. For instance, the filter element is made of thermoplastic resin such as, for example, polypropylene. The filter element could also be made of a non-woven material such as, for example, thermoplastic resin. Preferably the filter element divides the cavity 3 in two sections. It is provided that the first section can be filled with a raw material and the second section can be filled with and

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particularly collect a beverage's extract, which is not shown, during the extractions process. Both sections are not illustrated individually.

[00079] The portion capsule is intended for inserting into a brewing chamber or a device for producing a beverage, which is not shown here. In particular such a device for producing a beverage is a coffee machine. The device for producing a beverage could be also a machine that produces a tea drink, a chocolate drink or any other beverage. Preferably an extraction liquid, which is particularly water or hot water, is brought under high pressure into the brewing chamber of the device for producing a beverage. The extraction liquid interacts with the raw material of the beverage in such a way that an extract of a beverage or a beverage is generated. In particular the filter element is utilized as a strainer for the extract of a beverage.

[00080] According to the invention, the base element 2 has a wall region 2.1 and a bottom area 2.2. The wall region 2.1 basically ranges from the flange 17 to the bottom region 2.2. Several grooves 32 are placed in the wall region. In particular these grooves are keyways that are integrated in the wall region 2.1 and are facing the cavity 3 and range from the flange 17 to the bottom region 2.2 (i.e. they run perpendicular according to Figure 19). According to the invention provision is made for the grooves 32 to be extended vertically across the wall region, i.e. they run straight from the flange 17 to the bottom region 2.2, in which it is not necessary that they are extended over the whole length. The grooves are formed according to the invention in such a way that the wall region is reinforced or stiffened due to the grooves 32. Moreover, the plurality of the grooves 32, which are distributed over the wall region 2.1, realize an adhesion between

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wall region 2.1 and the brewing chamber's wall of the device for producing a beverage after the extraction process. This makes it easier to eject the portion capsule from the brewing chamber automatically. The portion capsule's version represented in Figure 19 comprises a circumferential border 16 that is placed at the wall region 2.1 ranging from the flange 17 to the bottom area 2.2, namely adjacent to the flange 17 facing towards the bottom area 2.2. The border 16 has an enlarged diameter (parallel to the membrane 4) compared to the wall region's ranging from the border 16 to the bottom area 2.2. It is provided that the border's contour 16 is designed in such a manner that the border's diameter tapers towards the flange 17.

[00081] It is provided according to the portion capsule's embodiment, which is represented in Figure 19 and is in accordance with the invention, that the grooves 32 are placed in the border's region in the first part, partially range from the border 16 to the bottom area 2.2 across the wall region 2.1, in the second part and then finally end. All in all, the grooves cover, for example, around 50 % of the extension of the wall region 2.1, which ranges from the flange 17 to the bottom area 2.2, wherein one-third of the grooves' extension is placed in the border's region and two-thirds of the grooves' extension is placed in the remaining wall region 2.1 that range from the border 16 to the bottom area 2.2.

[00082] A portion capsule 1 according to the invention is shown as sectional view along the portion capsule's extension regarding its height in **Figure 21,** i.e. the section's plane is perpendicular to the membrane's main plane. **Figure 22** also shows a portion capsule according to the invention in a sectional view portraying the

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sectional plane, which is parallel to the membrane's main plane. It is noticeable that the interior of the portion capsule's cavity is shown in Figure 21. The portion capsule's material or the base element's material is so thin that the implementation of grooves 32 at the exterior shown in Figure 19 leads to corresponding convexities 34 and impressions at the interior. Figure 22 particularly illustrates the gearwheel shaped contour 36 resulting from insertion of grooves in the portion capsule's 1 wall region.

List of reference numerals

1	portion capsule
2	base element
2.1	wall region
2.2	bottom area
2.3	ring
2.4	edge region
2.4.1	sealing surface
2.4.2	means for friction locking and/or detection
3	cavity
4	membrane, cover foil
5,6	unequal sections
7	recess
8	raised area, bulge
10	electrically conductive coat
11	metallic ring
12	brewing chamber
13	detector, mean for detection
14	beam
16	border
17	flange
20	ferromagnetic material
21	reflective section

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22	mat section
23	insertion shaft housing
24	mean for fit locking
25	inner wall
26	insertion shaft
28	water inlet
29	mandrel
30	holding arms
31	seal
32	grooves
34	convexities
36	gearwheel shaped contour

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PORTION CAPSULE HAVING AN IDENTIFIER

~~CROSS REFERENCE TO RELATED APPLICATIONS~~

~~**[0001]** This application claims benefit from and is a divisional of U.S. Application No. 15/211,823 filed July 15, 2016 entitled PORTION CAPSULE HAVING AN IDENTIFIER, which claims benefit from and is a continuation of U.S. Application No. 13/744,623, filed January 18, 2013, entitled PORTION CAPSULE HAVING AN IDENTIFIER, which claims benefit from International Application No. PCT/EP2011/003677, filed on July 22, 2011, entitled PORTION CAPSULE HAVING AN IDENTIFIER, which applications are hereby incorporated by reference in their entirety.~~

Field

[0001] These teachings relate to a beverage system for making a beverage having a single-serve capsule and a beverage machine.

~~BACKGROUND~~ **Background**

[0002] The present invention relates to a portion capsule for producing a beverage, comprising a base element having a cavity in which a beverage raw material is provided and which is closed by a membrane fastened to the base element.

[0003] Such capsules are well known and are being launched onto the market in abundant variety. Since these capsules are often quite similar, it is possible that the manufacturer's capsules are used in a coffee machine designed by another manufacturer, although they

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are not suited for it. This may result in significant security issues and/or the coffee machine may be damaged.

[0004] The object of the present invention is therefore to provide a portion capsule which only is suitable for a specific coffee machine.

~~SUMMARY~~ **SUMMARY**

[0005] The object is accomplished according to the present invention by a portion capsule for producing a beverage, comprising a base element having a cavity in which a beverage raw material is provided and which is closed by a membrane fastened to the base element, wherein it has an identifier, which allows to individualize the respective portion capsule.

[0006] The present invention relates to a capsule for producing a beverage or foodstuff, comprising a base element having a cavity in which a beverage raw material is provided. Such capsules are, for example made of plastic, natural materials and/or biodegradable materials and substantially have a base element, in particular a deep-drown base element, i.e. it is substantially designed frustoconically or cylindrically. The beverage raw material is arranged within the portion capsule's cavity and is extracted and/or dissolved in a liquid, in particular water. After the beverage raw material has been filled into the cavity the base element is usually sealed by a membrane. In particular the membrane is localized on the opposite side of the base element's bottom. The membrane can be made of the same or different material as the base element and is substantially attached to the base element using a sealing and/or an adhesive bonding. Additionally, the cavity could contain one or several built-in elements, such as, for example a filter, a non-woven, a felt, a shut-off

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device and/or something similar to those. For the case that a non-woven and a felt are arranged within the cavity, they are interconnected preferably. The non-woven and/or the felt can be made of several layers in such a way that the layers may differ in the kind of its starting material and/or its preparation. Moreover, the membrane and/or the bottom can be provided with a plurality of recesses (holes).

[0007] According to the present invention, it is provided that the portion capsule has an identifier that allows to individualize the respective portion capsule. In the context of this invention individualizing means that the respective portion capsule can be assigned to a group of capsules that are suitable for the coffee machine preferably. It is not necessary that the coffee machine is able to specify and/or identify the portion capsule. In fact, it is much more important that the coffee machine associates the portion capsule with a group of portion capsules, which is suitable for the coffee machine. In particular, individualizing means that those portion capsules that are not appropriate for the coffee machine cannot be inserted into and/or directly fall through the holder, which is designed for the portion capsules in the coffee machine, and/or the coffee machine operates only with the corresponding portion capsules. Preferably a sensor/detection system handles the identifier and compares it with a stored reference substantially. Preferably, the coffee machine, in particular the water-providing- pressure pump, will be activated if the detected identifier matches with the reference. Otherwise, the coffee machine will not start operating. Preferably the detection system is placed in the region of the coffee machine's media chute designed for the portion capsules. According to another preferred embodiment of the invention, the detection system may be placed in the region of the brewing chamber. Another possible embodiment of the invention provides that the

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identifier prevents portion capsules from inserting into the coffee machine. Alternatively, or additionally, means, in particular mechanical means, more preferably, one or more gearwheels, may be added to the media chute in order to guarantee that incorrect portion capsule cannot be inserted into the coffee machines by passing the media chute.

[0008] Preferably, the identifier is composed of surface areas having different optical properties, for example reflection. These surfaces may be localized on the membrane, the side wall and/or the bottom of the portion capsules. Preferably, the portion capsule has at least two areas which differ in their optical properties, for example the reflection characteristics.

[0009] The detection of a recess and/or a bulge is also preferred. Preferably, recess and bulges alternate and/or at least two recesses or bulges are separately placed from each other. Especially it is possible that the recess and/or the bulge form a gearwheel that is attached to the outer border and/or at least partially extends to the wall region of the portion capsule. The recess and/or bulge may be produced by any shaping method, for example by deep drawing, preferably.

[00010] Furthermore, the recess may be realized by removing material. In particular, the material's ~~remove~~ removal can be accomplished by punching or using a laser on condition that this processing does not damage a barrier layer placed in the portion capsule's material, which prevents moisture or aroma from escaping out of the portion capsule and/or water vapor or oxygen enters the capsule. The reading of the identifier, which is encoded in the recess and/or bulge, may be a result from a mechanical and/or

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optical method, for example. Alternatively, or additionally, the identifier can be used to avoid that the portion capsule is inserted into the coffee machine. This applies in particular to the media chute. For example, it is possible to design a portion capsule comprising a ring gear that is placed on its circumference and is compatible with another ring gear, which is placed in the media chute. If the media chute's ring gear only revolves for a corresponding ring gear of the portion capsule and its revolving allows the portion capsule to pass, only portion capsules equipped with the proper ring gear will pass the insertion lock.

[00011] According to a further subject matter of a preferred development of the present invention, the identifier may be included in the membrane. Preferably, the identifier is a layer or partial layer of the membrane. Such identifiers may be an optically detectable material, for example a fluorescent material. Furthermore, the identifier may be designed with layers made of metal or ferrous metal or stripes made of metal or ferrous metal in or on the membrane, respectively.

[00012] Preferably the identifier is a machine-readable imprint. This is realized with a print in food approved color, preferably. Fluorescent materials like paper or print materials, whose optical properties change under the influence of temperature, are favored also. Preferably the print is a barcode, a logo or a ~~rapport~~repeat pattern.

[00013] According to a further subject matter of a preferred development of the present invention, the identifier is an electrically conductive section, which can be placed all over the portion capsule, but is localized on the side wall, the edge and/ or the floor

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preferably. The electrically conductive section, which is inserted into the coffee machine, can become part of an electric circuit, and causes therefore a measurable change, which leads to the identification of the respective portion capsule. In a further preferred embodiment, the identifier is a section made of a ferromagnetic material.

[00014] Another construction version favors a RFID chip being the identifier.

[00015] If the portion capsule is customized according to the invention, portion capsules that are not in line with the coffee machine will be prevented from inserting into the coffee machine. Furthermore, it is possible that the identifier allows to identify the portion capsule located in the brewing chamber in such a way that the production process of beverage or food may be controlled, for example by adjusting the temperature, the pressure and/or the amount of water.

[00016] According to a further subject matter of a preferred development of the present invention, the portion capsule's material is weakened in the bottom area caused by a selective material removal, for example by using a laser. The weakening is provided for piercing the portion capsules using a mandrel. This procedure is needed for the beverage's preparation. Since the material is weakened in the section, which is treated with a laser and is supposed to be pierced using the mandrel, the degree of necessary force for piercing the portion capsule is reduced. The mandrel of such coffee machines is usually equipped with a force limitation that limits the force, which is dedicated for pressing the mandrel against the portion capsule's bottom. This preparation avoids that portion capsules having no appropriate weakening can be used in such a coffee machine. Consequently, the

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weakening represents another kind of identifier.

[00017] According to a further subject matter of a preferred development of the present invention, the portion capsule has an edge region, which is preferably attached to the base element. Preferably, the edge is located opposite of the base element's bottom area. After the raw material has been filled in the portion capsule, a membrane can be attached to this edge region, for instance. Moreover, the edge can also designed for guiding the portion capsule into the chute in order to position the portion capsule in the brewing chamber properly. Simultaneously, it is possible to use the surface of the edge for stopping and/or sealing.

[00018] Preferably provision is made for the portion capsule to have means for fit locking, friction locking and/or detection in the edge region. The means for fit locking and/or friction locking may be used to activate a complementary mechanism, which is located in the coffee machine, in order to allow inserting the portion capsule into the coffee machine and/or starting a sensor, like a gearwheel, that transmits a signal to a control unit depending on whether the portion capsule corresponds to the coffee machine or not. Alternatively, or additionally, a detector may identify the mean for fit locking, friction locking and/or detection in order to check that the portion capsule is suitable to the respective coffee machine.

[00019] Preferably, the means for fit locking, friction locking and/or detection is a gearwheel or a gearwheel~~gearwheel'~~ segment, which are located, in particular, in the outer area of the edge region. The teeth of the gearwheel or the ~~gearwheel'~~ gearwheel segment

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may be shaped in any commonly used form, which is known, for example, by an expert from gear manufacturing. Preferably, it is provided that these teeth are triangular, rectangular, square, or wavy.

[00020] Preferably, there is a sealing surface, that is arranged on the interior side relative to the gearwheel or the gearwheel~~gearwheel'~~ segment.

[00021] Another and preferred state-of-the-art technology is a portion capsule for producing a beverage, comprising a base element substantially designed frustoconically or cylindrically, having a cavity in which a beverage raw material is provided and which is closed by a membrane fastened to the base element with the base element having a wall region and the base element having a bottom area, which is preferably located opposite to the membrane, with the wall region having several grooves and the grooves which are located between membrane and bottom area covering the wall region along its height at least partially. The grooves may be also located in the edge region, in particular on the outer area of the edge region.

[00022] This portion capsule has the advantage over the portion capsule according to the state-of-the-art technology that, for instance, the grooves reinforce the base element's wall region. On the one side, these grooves make the portion capsule more stable towards mechanical forces and prevent the portion capsule from deformation and buckling, in particular. The arrangement of the grooves, which are located at the wall region, additionally improves the performance of the portion capsule while the extraction liquid flows through it in the brewing chamber, since the

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arrangement of the grooves, in particular those partially expending over the wall region between membrane and bottom area, increase quality and reliability of the extraction process significantly. According to the invention another advantage is that the base element's thickness can be reduced, because the use of grooves improves the physical stability. The production of the portion capsule is therefore much less expensive and more environmentally friendly. On the other side, the grooves reduce or avoid the contact between the portion capsule's wall region and the wall of the brewing chamber. As a result, ejecting or removing the portion capsule from the brewing chamber is made easier. Another advantage of using a plurality of grooves is that the stream of the extraction liquid, which flows along the base element in the cavity, can be optimized by choosing a grooves' structure that is able, for example, to generate on the one hand a better or stronger turbulence in the extraction liquid or on the other hand a more uniform (laminar) flow of the extraction liquid, in the wall region. The control of the liquid may be obtained by the structure of the grooves itself or by using simple means additionally. A stronger turbulence compared to the one known in the state-of-the-art has the advantage that no unintended and casual main streams are formed in the raw materials. Instead, the extraction liquid equally flows through the raw material in all of the volume. Thus, the extraction process is much more efficient and can be controlled more precisely and reproducibly.

[00023] In particular, the raw material may be coffee powder (especially ground roasted coffee), chocolate powder, milk powder, tea, or the like. Alternatively, it is conceivable that the raw material is a beverage's extract, such as instant coffee for example.

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[00024] In particular, the grooves are recesses and bulges, which are preferably directed along a main extension and are preferably extended along the wall portion or the periphery of the edge region. More preferably, the grooves are formed as webs and/or notches. A gearwheel, for instance, may be obtained by the grooves. Therefore, the grooves are part of the base elements' wall, optionally located on the inner side facing to the cavity and/or on the outside facing away from the cavity.

[00025] According to a preferred embodiment of the present invention, it is provided that the grooves form an identifier that allows individualizing the portion capsule. In the context of this invention individualizing preferably means that the respective portion capsule can be assigned to a group of capsules that are suitable for the respective coffee machine or the machine producing a beverage. It is not necessary that the coffee machine or the device for producing a beverage is able to specify and/or identify the portion capsule. It is more important that the device for producing a beverage, in particular a coffee machine, associates the portion capsule with a group of portion capsules, which is appropriate for the respective device for producing a beverage, in particular a coffee machine. In particular, individualizing means that those portion capsules that are not appropriate for the coffee machine (or the device producing the beverage) cannot be inserted into and/or directly fall through the holder, which is designed for the portion capsules in the coffee machine (or the device producing the beverage), and/or the coffee machine (or the device producing the beverage) operates only with corresponding portion capsules ("proper portion capsule"). In particular, individualizing means that the coffee machine or the device producing the beverage will not operate

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properly in the intended use, if the used portion capsule is not customized according to the invention. Preferably, a sensor/detection system, attached to the coffee machine or the device producing the beverage, records the identifier and substantially compares it with a stored reference. In particular, it is possible that such an identification process is based on a mechanical fitting, especially a fitting of a gearwheel or of a contour comparable with a gearwheel, which is attached to the device producing the beverage or the coffee machine and interacts with the portion capsule. It is preferred that the device for producing the beverage or the coffee machine only will operate, if the identifier matches to the reference or the mechanical fittings match with each other. In this case the device for producing the beverage particularly starts to operate, especially activates a pressure or water pump. The mean for detection or mechanical fitting is preferably located in the region of the media chute or in the region of the device for producing the beverage. Alternatively, the identifier or the mechanical fitting may avoid that an unsuitable portion capsule is inserted into the device for producing the beverage. A portion capsule, which is designed in accordance with the invention, makes it possible that a portion capsule that is not designed for the device for producing a beverage cannot be inserted into it. Additionally, the identifier allows that the device for producing the beverage, especially the coffee machine, may specify the sort of the portion capsule and thereby control the production process of beverage and food by adapting, for example, the pressure, the temperature and/or the amount of water.

[00026] According to a further preferred embodiment of the present invention, it is provided that at least a part of the grooves and at least in a subarea parallel to the main plane of the membrane is gearwheel shaped.

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[00027] According to the present invention, it is an advantage that it is possible to increase the stability of the portion capsule's wall region, to realize improved turbulences of the extraction liquid and thereby to improve the extraction's process under the same conditions, for example, such as material thickness and the like. Another advantage is that it is easy to generate a mechanical identifier or a mechanical fitting that matches with a fitting tool that belongs to the device for producing a beverage. According to the invention it is an further advantage that, for example, a gearwheel, which is attached to the device for producing a beverage and is, for example, located in the region of the media chute or similar, can possibly interacts with the gearwheel's contour of the portion capsule. In this way it is possible to generate a mechanical fitting that allow to individualize the portion capsule as a proper one and/or to specify the sort of portion capsule and/or to rotate the portion capsule about an axis of rotation, that is perpendicular to the membrane's main plane, by using the gearwheel's arrangement. Such an embodiment of the invention makes it possible that the portion capsule is always opened with the device for producing a beverage on the same spot (with respect to its angular position) and therefore the raw material is extracted on the same manner. Moreover, the grooves prevent the portion capsule from being inserted into the coffee machine.

[00028] In a preferred version of the invention, it is provided that there is a flange/edge region being averted from the bottom region, for fixing the membrane to the base element, where in the wall region between flange/edge region and bottom region preferably has a border and the grooves are being preferably extended to this border.

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[00029] Because of this it is another advantage according to the invention that on the one hand the wall region can be constructed in a stable and reinforced manner and on the other hand the gearwheel shaped contour of the grooves, located at the wall region, is able to absorb a relative high load. With that it is possible that the portion capsule can be rotated easily and without any damaging of the portion capsule within the device for producing a beverage.

[00030] Preferably, the base element's diameter is enlarged in the border's region compared to the wall region, which range from the border to the bottom region.

[00031] This gives rise to the advantageous possibility to stack portion capsule or portion capsules' base elements easily and robustly.

[00032] Moreover, it is preferred that at least a part of the grooves are gearwheel shaped and at least a plane, which is at least partially gearwheel shaped, is parallel to the membrane in such a way that the gearwheel shaped contour expands over the borders or the flange/edge region.

[00033] Further preferred versions of the present invention relate to portion capsules that implement one or more of the following characteristics:

- the base element tapers in the direction of the flange in the border's region,
- the grooves directed toward the bottom region expand over the border's region,
- the grooves approximately cover 20% -80%, preferably 40% - 60% of the wall region, which is placed between the border and the bottom region,

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- the grooves are constructed in such a way that the wall region is reinforced and/or the grooves causes an extraction liquid's turbulence in the cavity.

[00034] Other preferred versions of the present invention relate to portion capsules that are manufactured in such a way that the ratio of the diameter of that wall region of the base element which adjoins the flange to the diameter of the flange is between 0.85 and 0.89, and in particular substantially 0.87.

[00035] In a preferred version, the wall region's diameter, which is adjacent to the flange, is 39 millimeters ~~millimeter~~ and the flange's diameter is 45 millimeters~~millimeter~~. Another advantageous version of the invention prefers a base element having a thicker wall region in the border's region compared to the wall region between bottom region and flange. Since the portion capsule's design, which contains grooves in the wall region, ~~improve~~ improves its stability, it is possible to save material by manufacturing the portion capsule and therefore to reduce cost and energy required for manufacturing the portion capsules.

[00036] According to the invention it is further provided that a filter element is arranged into the cavity. Such a filter element divides the cavity into a first region for accommodating the beverage raw material and into a second region for accommodating a beverage extract. In particular, it is provided that the filter element is made of a non-woven material.

[00037] According to a further subject matter or a preferred development of the

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present invention the portion capsule according to the invention is intended for the preparation of a hot beverage. In the following the invention is explained based on the Figures 1 - 22. These explanations do not restrict the general idea of the invention.

~~BRIEF DESCRIPTION OF THE DRAWINGS~~

Brief Description of the Drawings

[00038] **Figures 1A and 1B** show ~~shows~~ a portion capsule containing sections that differs optically.

[00039] **Figures 2A, and 2B** show ~~shows~~ a portion capsule containing a barcode.

[00040] **Figure 3** shows a portion capsule with recesses and bulges.

[00041] **Figure 4** shows a portion capsule containing sections that differs optically.

[00042] **Figure 5** shows a portion capsule with a key function.

[00043] **Figure 6** shows a portion capsule's wall that is electrically conductive.

[00044] **Figure** 7 shows a portion capsule's wall containing sections that differs optically.

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[00045] **Figure 8** shows an enlarged pot construction of the portion capsule's wall.

[00046] **Figure 9** shows an edge region that is electrically conductive.

[00047] **Figure 10** shows a portion capsule containing a bottom that is electrically conductive.

[00048] **Figure 11** shows an embodiment containing a layer that can be detected by a metal detector.

[00049] **Figure 12** shows a metallic strainer.

[00050] **Figure 13** shows a portion capsule containing a ferromagnetic section.

[00051] **Figure 14** shows a portion capsule containing a barcode.

[00052] **Figure 15** shows a portion capsule containing a section, which is electrically conductive, in the wall.

[00053] **Figures 16A and 16B** show ~~shows~~ a portion capsule with a gearwheel placed in the brewing chamber.

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[00054] **Figures ~~17 a-c~~ 17A, 17B, and 17C** show different embodiments of the portion capsule according to ~~Figure 16~~Figures 16A and 16B.

[00055] **Figure 18** shows the portion capsule according to the Figures 16 A and 16B and Figures 17 a-c, when the portion capsule is fit locking with a gearwheel.

[00056] **Figures 19 and 20** show a schematic view of a portion capsule according to an embodiment of the presented invention.

[00057] **Figures 21 and 22** show two sectional views of the portion capsule according to an embodiment of the presented invention.

~~DETAILED DESCRIPTION~~

Detailed Description

[00058] ~~The view illustrated on the right side of~~ **Figures 1A and 1B** show ~~shows~~ a portion capsule 1 comprising a base element 2 that has a wall region 2.1 and a bottom area 2.2. The wall region 2.1 and the bottom area 2.2 define a cavity 3, which may include the raw material and perhaps a built-in element. After filling, the cavity 3 is sealed by a membrane 4, which is preferably attached to the edge region 2.4 of the base element using seal or glue. This portion capsule can be inserted into a brewing chamber 12~~shown in Figure 12~~, with a liquid, in particular water, flowing through it. During this process, the raw material is extracted or dissolved and therefore the beverage is

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produced. According to the invention the portion capsule has only one identifier that allows to ~~determinate~~ determine whether the respective portion capsule goes with the coffee machine's brewing chamber 12 and the parameters for processing are chosen properly. If it is not the case, significant security issues arise. Inserting the wrong portion capsule, for example, endangers the brewing chamber's tightness. In this case hot water can be discharged under high pressure and therefore compromise the user's safety. Otherwise, it is also possible that inserting the wrong portion capsule damages the coffee machine. In this example the identifier is represented by several raised areas 8, which differ in reflection properties from the sections between the raised areas. As shown by the arrows the bulges are passed by a mean for detection 13 (here: an optical detector) that is able to differentiate between the unequal sections 5, 6 having different optical properties such as, for example, reflection. Switching between the different sections or the number of bulges represents the identifier. After the identifier has been read out the identifier is compared to a stored reference. If the identifier agrees with the reference, the coffee machine will start operating. Particularly the pump, which is for example responsible for pushing hot water through the brewing chamber, will not start operating, if the identifier does not agree with the reference.

[00059] All the remarks concerning the identifier apply to all the examples.

[00060] **Figures 2A and 2B** show ~~shows~~ another embodiment of the portion capsule 1 according to the invention. The portion capsule 1 comprises a base element 2 that has a wall region 2.1 and a bottom area 2.2. Here the portion capsule 1 has a barcode 50 placed in the area of the membrane's 4 top surface. This ~~bar-code~~barcode may be

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printed by material removal or may be generated by a medium that is integrated in the foil and can be detected optically such as a fluorescence agent. Alternatively, metal rings may be part of the foil or attached to the foil. The barcode's ~~bar-code's~~ section may be made of a ferromagnetic material. As shown by the arrow 15 the ~~bar-code~~ barcode 50 alternatively can be attached to the base element's edge region being averted from the membrane 4. Such a ~~bar-code~~ barcode is read out by a detector 13 placed, for example, in the media chute. The ~~bar-code~~ barcode represents the identifier according to invention.

[00061] **Figures 3A and 3B** show ~~shows~~ another embodiment of the portion capsule 1 according to the invention. In the present case the identifier comprises recesses and bulges 7, 8, which result from material removal or reshaping the portion capsule as shown here by the example of the portion capsule's wall 2.1. In the present case, recesses and bulges interact with a means for detection 13, which operates like a key, wherein the coffee machine only start operating, when all elements ~~13~~ 14 are placed in the respective recess 7. Therefore, an electric circuit may be changed or especially closed.

[00062] **Figure 4** shows an embodiment of the portion capsule being substantially identical to the embodiment illustrated in Figure 1. As an alternative version of the invention, the figure additionally shows that the unequal sections 5, 6 differing in terms of optical properties can be attached to the cover foil, for example in the form of a ~~bar-code~~barcode.

[00063] **Figure 5** shows an embodiment of the portion capsule being substantially identical to the embodiment illustrated in Figure 3 that includes recesses 7 and bulges 8.

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Again, the recesses represent the key bit. The coffee machine only will start operating, if the recesses interact with the corresponding bulges and therefore an electric circuit is changed respectively. The placement of such a system is not restricted to the brewing chamber. For instance, the system may be placed in the portion capsule's media chute.

[00064] **Figure 6** shows a version of the invention that includes a base element 2 and an electric material forming a surrounding ring 2.3, which preferably has a raised form. The electrically conductive material is scanned by means for detection 13 having electric sliding contacts, which are placed in the media chute and form electric contacts of an electric circuit, while the portion capsule is inserted.

[00065] **Figure** 7 shows an embodiment of the portion capsule being substantially identical to the embodiment illustrated in Figure 6, in which it is provided that the ring area has reflective 21 or mat 22 sections, for example in form of a covering, and allows a read-out by means for detection 13 for optical detection, which are placed in the media chute and are part of a control current, while the portion capsule is inserted.

[00066] **Figure 8** shows a relative broad and raised ring 2.3 which represents the identifier. The media chute is equipped with a corresponding vacancy that tests whether the portion capsule has the proper identifier. The broad ring is scanned, for example, by means for detection 13 having mechanical sensors, which are placed in the media chute and close the contacts of an electric circuit, while the portions capsule is inserted.

[00067] **Figure 9** shows another embodiment of the portion capsule according to

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the invention. In the present case an electrically conductive coat 10 is integrated in the edge region's back and is scanned by electric sliding contacts, which are placed in the media chute and form electric contacts of an electric circuit, while the portion capsule is inserted.

[00068] **Figure 10** shows another embodiment of the portion capsule according to the invention. In the present case the portion capsule has an electrically conductive coat 10 at the bottom area 2.2 such as a conductive varnish layer or an aluminum foil. The coat is scanned by means for detection 13 having electric sliding contacts, which form electric contacts of an electric circuit, while the portion capsule is inserted.

[00069] **Figure 11** illustrates a version of the portion capsule having also an electrically conductive coat 10 that is placed on its bottom 2.2 and is identified by a means for detection 13 having a metal sensor, which is placed in the chute and, for example, detects inductively, while the portion capsule is inserted.

[00070] The embodiment of the invention shown in **Figure 12** has a built~~build~~-in element made of metal (here a strainer 19) that is recognized as identifier by a means for detection 13 having a metal detector.

[00071] The version of the invention shown in **Figure 13** includes a ferromagnetic material 20 placed at the portion capsule' bottom. The identifier is scanned, by means for detection 13 for example, by a magnet, which is placed in the chute, while the portion capsule is inserted. The ferromagnetic material acts as identifier.

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[00072] **Figure ~~10~~ 14** shows another embodiment which includes a ~~bar-code~~barcode placed in the region of the cover foil. The portion capsule includes a flange 17.

[00073] According to the embodiment shown in **Figure 15** a metallic ring 11 is integrated in the wall region 2.1 and closes means for detection 13 having an electric circuit placed in region of the brewing chamber.

[00074] **Figures 16A and 16B** show ~~shows~~ another embodiment of the portion capsule 1 according to the invention. The illustrated portion capsule features a base element 2 that is basically conical- shaped in the present case and has a bottom region 2.2 and a wall region 2.1. It is provided that the base element contains the raw material and, if necessary, build-in elements like a filter as illustrated here. The expert knows that the build-in element may also include other build-in elements. A flange 17 /edge region 2.4, which is preferably circular and, for example, may be used for sealing a cover foil 4 to it, is attached to the end of the base element, which is placed opposite to the bottom. The flange/edge region has means for fit locking, friction locking and/or detection 2.4.2 in the outer area (outer circumference). As especially shown in the Figures 17a - 17c the means for fit locking, friction locking and/or detection ~~mean~~ 2.4.2 is, in the present case, a gearwheel that is formed by several recesses/bulges evenly arranged in the edge region. Preferably, it is provided that the edge region has a sealing surface 2.4.1, which sealingly interacts with the ~~sealing 21~~seal 31 attached to the brewing chamber ~~27~~12, on the interior side of the gearwheel. The sealing ~~21~~ 31 makes sure that the water coming from a water inlet 28 flows ~~rather~~ through the portion capsule by passing an opening, which has been

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made by a mandrel 29, than around it.

[00075] **Figures 17A, 17B, and 17C~~17a - 17e~~** show different embodiments of the means for fit locking, friction locking and/or detection ~~mean~~ 2.4.2. According to the version shown in Figure ~~17a~~17A, the gearwheel has forty-five teeth. According to the version shown in Figure~~ 17b or 17e~~ 17B or 17C, the gearwheel has twenty-two or twenty-nine teeth, respectively. The expert knows that the manufactured teeth can be shaped arbitrarily. All Figures 17A, 17B, and 17C~~17a - 17e~~ demonstrate how the portion capsule 1 can be ~~hold~~ held by a part of the brewing chamber ~~27~~ 12 using two holding arms 30. The holding arms ~~interacts~~ interact with the means for fit locking, friction locking and/or detection ~~mean~~ 2.4.2. If they are not available, the holding arms will not hold the portion capsule and the portion capsule will not be inserted into the brewing chamber and will fall through it into a dropping box instead. The portion capsule has a base element 2, a wall region 2.1, a bottom area 2.2, a sealing surface 2.4.1, and an edge region 2.4.

[00076] **Figure 18** shows the~~ mean 2.4.2.~~ means for fit locking, friction locking and/or detection 2.4.2 along with ~~an~~ mean for fit locking 24, which is attached to the coffee machine and is represented by a pinion here. It is provided that the mean for fit locking 24 is placed in the media chute or insertion shaft 26 of an insertion shaft housing 23 having a port for inserting the portion capsule in the coffee machine. The distance between the inner wall 25 of the portion capsule ~~25~~ 1 and the mean for fit locking 24 represented by the pinion ~~27~~ 24 are designed in such a way that the portion capsule only will pass the port, if the means for fit locking, friction locking and/or detection 2.4.2 ~~mean for fit locking~~ is formed complementary to the teeth of the mean for fit locking 24

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represented by the pinion ~~27~~. Only in this case the portion capsule rotates the mean for fit locking 24 represented by the pinion 24 while it falls. Both rotating and falling are represented by arrows in the figure. The portion capsule needs the rotation for passing the media chute's port and falling in the intended position afterwards. If the portion capsule has no or wrong mean of fit locking, it will be impossible to place the portion capsule by passing the media chute in the intended position. Additionally, or alternatively, it is provided that the mean for fit locking 24 represented by the pinion ~~24~~ has a pick-up that detects the rotary movement and transmits it to a control unit. If the rotation at least corresponds a defined rotating element, the control unit will activate, for example, the brewing unit. The expert knows that the portion capsule's border may include means for friction locking that interacts with a mean, for example an edge, and shift it in such a way that the shift is detected and therefore the brewing chamber is activated. The portion capsule 1 has a cover foil 4 and a sealing surface 2.4.1.

[00077] The expert moreover knows that a sensor, being for example a camera, which detects the form of the ~~mean~~ means for fit locking, friction locking and/or detection 2.4.2~~.~~, may be installed in the media chute. In the present case the form and/or the distance between the teeth may be detected. If the proper portion capsule was inserted, a resulting signal could be transmitted to a control unit, which activates the brewing chamber.

[00078] **Figure 19** schematically shows a view of another portion capsule's version according to an embodiment of the present invention. **Figure 20** illustrates the same portion capsule from a different point of view schematically. Figure 19 shows the front view of the portion capsule. Figure 20 shows the portion capsule viewed from an angle

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below. In all figures the portion capsule is labeled with the reference sign 1. The portion capsule substantially has a frustoconically shaped base element 2, which is formed similar to a pot and encloses a cavity 3. The cavity 3 is sealed by a membrane 4. Since the viewing direction of ~~Figure 1~~Figure 19 is essentially parallel to the plane, in which the membrane is located, ~~the figure just adumbrate~~ the membrane is at the upper edge of the portion capsule. In particular, the base element 2 comprises a soft, semi-rigid or rigid plastic material which is deep-drown, preferably. The membrane comprises a foil made of plastic material or aluminum. Preferably the base element has a circumferential mounting flange 17 in the region of the membrane, with the membrane and the mounting flange 17 being firmly bonded, in particular by welding or gluing. Preferably a filter element, which is not specifically depicted in the figures, is placed within the base element 2. For instance, the filter element is made of thermoplastic resin such as, for example, polypropylene. The filter element could also be made of a non-woven material such as, for example, thermoplastic resin. Preferably the filter element divides the cavity 3 in two sections. It is provided that the first section can be filled with a raw material and the second section can be filled with and particularly collect a beverage's extract, which is not shown, during the extractions process. Both sections are not illustrated individually.

[00079] The portion capsule is intended for inserting into a brewing chamber or a device for producing a beverage, which is not shown here. In particular such a device for producing a beverage is a coffee machine. The device for producing a beverage could be also a machine that produces a tea drink, a chocolate drink or any other beverage. Preferably an extraction liquid, which is particularly water or hot water, is brought under high pressure into the brewing chamber of the device for producing a beverage. The

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extraction liquid interacts with the raw material of the beverage in such a way that an extract of a beverage or a beverage is generated. In particular the filter element is utilized as a strainer for the extract of a beverage.

[00080] According to the invention, the base element 2 has a wall region ~~12~~ 2.1 and a bottom area ~~11~~2.2. The wall region ~~12~~ 2.1 basically ranges from the flange 17 to the bottom region ~~11~~2.2. Several grooves ~~15~~ 32 are placed in the wall region. In particular these grooves are keyways that are integrated in the wall region ~~12~~ 2.1 and are facing the cavity 3 and range from the flange 17 to the bottom region ~~11~~ 2.2 (i.e. they run perpendicular according to Figure 19). According to the invention provision is made for the grooves ~~15~~ 32 to be extended vertically across the wall region, i.e. they run straight from the flange 17 to the bottom region ~~11~~2.2, in which it is not necessary that they are extended over the whole length. The grooves are formed according to the invention in such a way that the wall region is reinforced or stiffened due to the grooves ~~15~~32. Moreover, the plurality of the grooves ~~15~~32, which are distributed over the wall region ~~12~~2.1, realize an adhesion between wall region ~~12~~ 2.1 and the brewing chamber's wall of the device for producing a beverage after the extraction process. This makes it easier to eject the portion capsule from the brewing chamber automatically. The portion capsule's version represented in Figure 19 comprises a circumferential border 16 that is placed at the wall region ~~12~~ 2.1 ranging from the flange 17 to the bottom area ~~11~~2.2, namely adjacent to the flange 17 facing towards the bottom area ~~11~~2.2. The border 16 has an enlarged diameter (parallel to the membrane 4) compared to the wall region's ranging from the border 16 to the bottom area ~~11~~2.2. It is provided that the border's contour 16 is designed in such a manner that the border's diameter tapers towards the flange ~~7~~

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17.

[00081] It is provided according to the portion capsule's embodiment, which is represented in Figure 19 and is in accordance with the invention, that the grooves ~~15~~ 32 are placed in the border's region in the first part, partially range from the border 16 to the bottom area ~~11~~ 2.2 across the wall region ~~12~~2.1, in the second part and then finally end. All in all, the grooves cover, for example, around 50 % of the extension of the wall region ~~12~~2.1, which ranges from the flange ~~7~~ 17 to the bottom area ~~11~~2.2, wherein one-third of the grooves' extension is placed in the border's region and two-thirds of the grooves' extension is placed in the remaining wall region ~~12~~ 2.1 that range from the border 16 to the bottom area ~~11~~2.2.

[00082] A portion capsule 1 according to the invention is shown as sectional view along the portion capsule's extension regarding its height in **Figure 21,** i.e. the section's plane is perpendicular to the membrane's main plane. **Figure 22** also shows a portion capsule according to the invention in a sectional view portraying the sectional plane, which is parallel to the membrane's main plane. It is noticeable that the interior of the portion capsule's cavity is shown in Figure 21. The portion capsule's material or the base element's material is so thin that the implementation of grooves 32 at the exterior shown in Figure 19 leads to corresponding convexities 34 and impressions at the interior. Figure 22 particularly illustrates the gearwheel shaped contour 36 resulting from insertion of grooves in the portion capsule's 1 wall region.

List of reference numerals

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1	portion capsule
2	base element
2.1	wall region
2.2	bottom area
2.3	ring
2.4	edge region
2.4.1	sealing surface
2.4.2	means for friction locking and/or detection
3	cavity
4	membrane, cover foil
5,6	unequal sections
7	recess
8	raised area, bulge
10	electrically conductive coat
11	metallic ring
12	brewing chamber
13	detector, mean for detection
14	beam
16	border
17	flange
20	ferromagnetic material
21	reflective section
22	mat section
23	insertion shaft housing
24	mean for fit locking
25	inner wall
26	insertion shaft
28	water inlet
29	mandrel
30	holding arms
31	seal
32	grooves
34	convexities

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36 gearwheel shaped contour

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Nespresso USA, Inc. Ex. 1002
Page 106 of 598

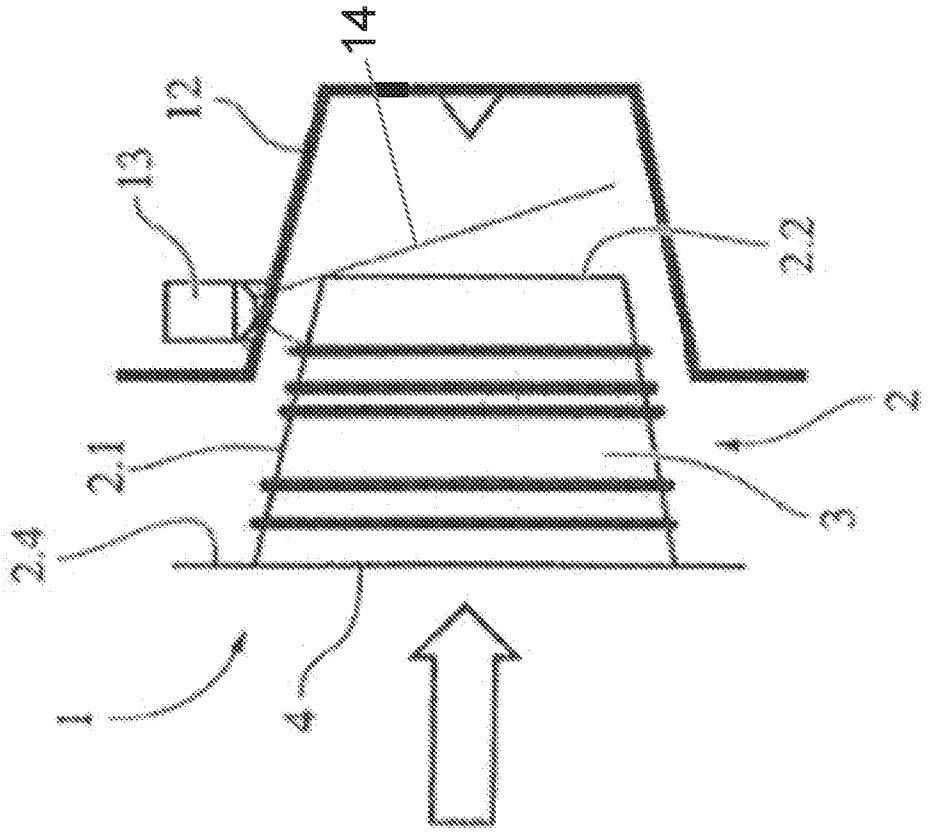


Fig. 1B

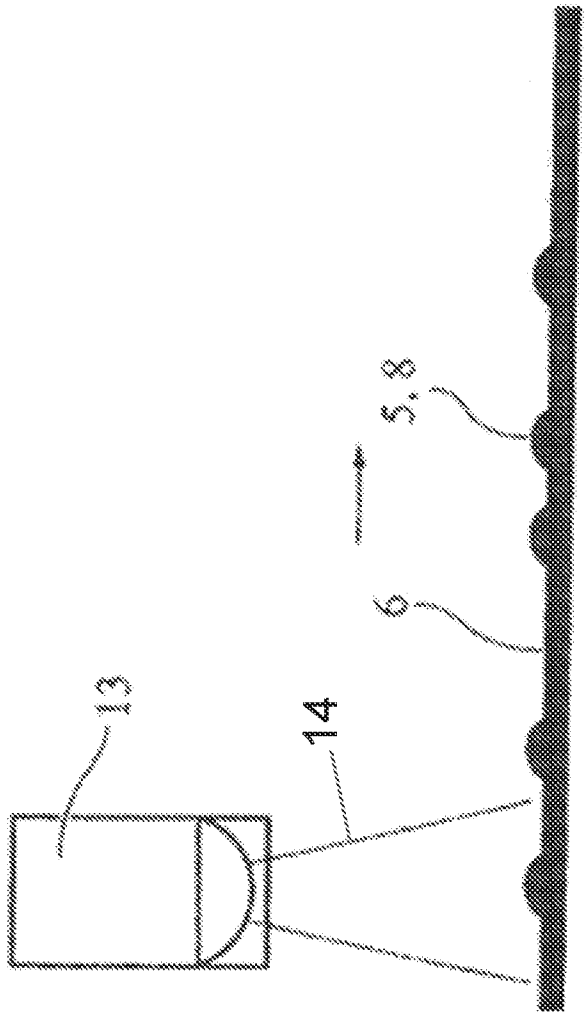


Fig. 1A

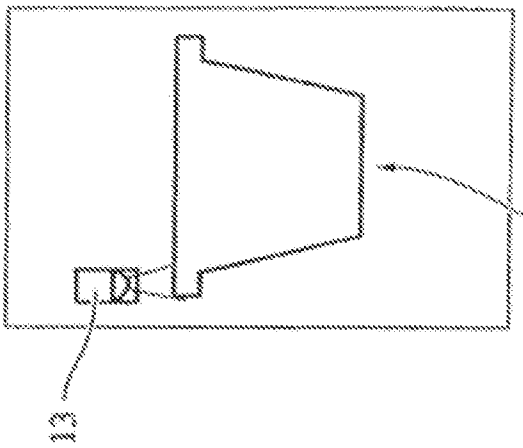


Fig. 2B

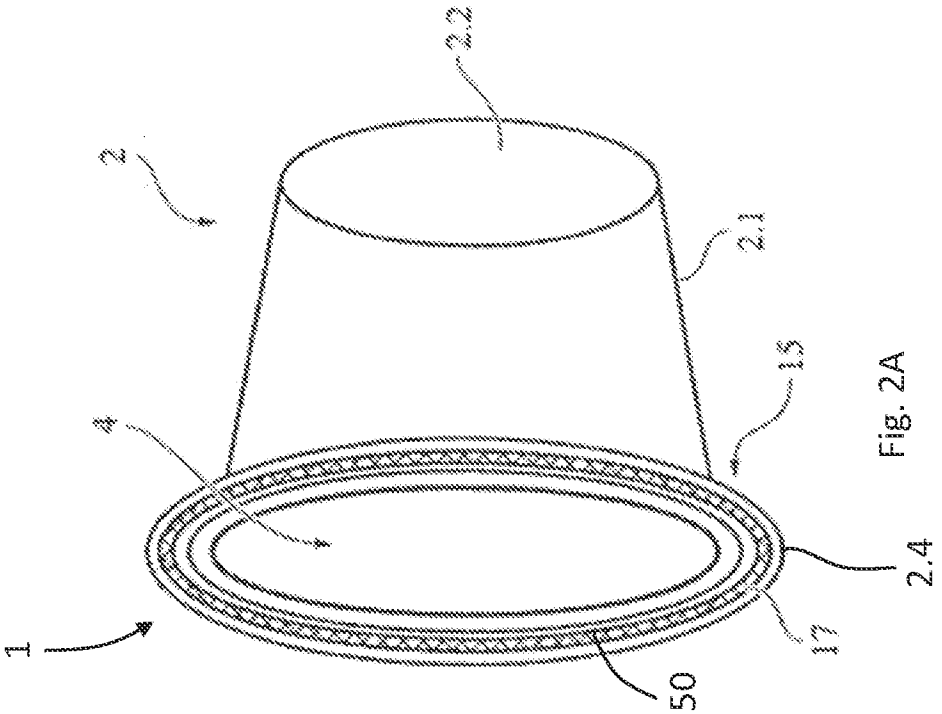


Fig. 2A

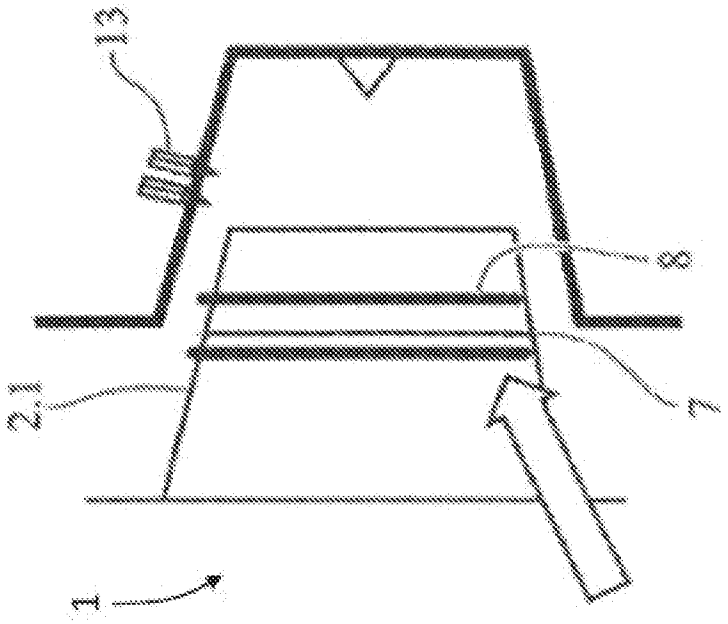


Fig. 3A

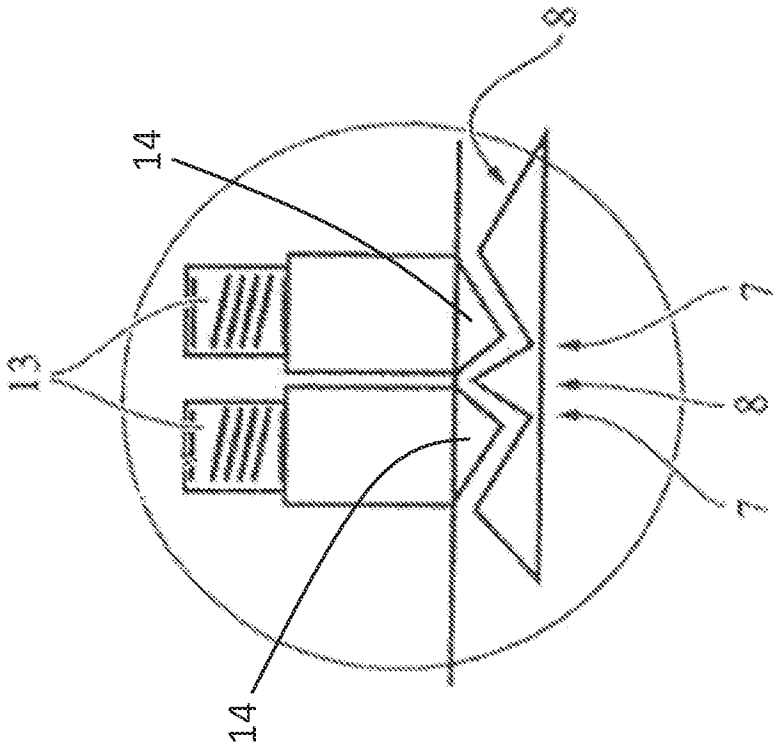


Fig. 3B

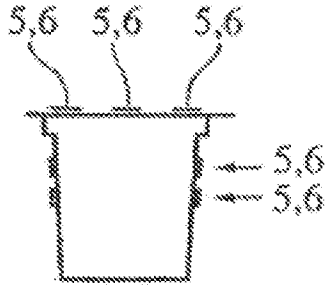


Fig. 4

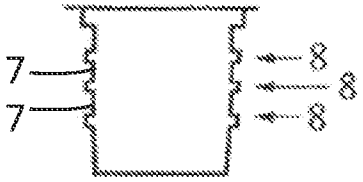


Fig. 5

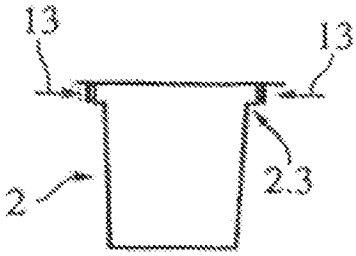


Fig. 6

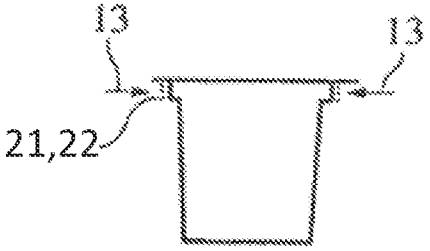


Fig. 7

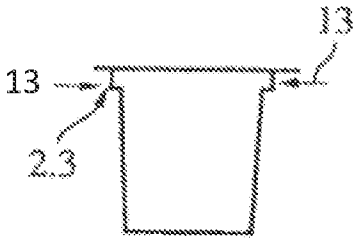


Fig. 8

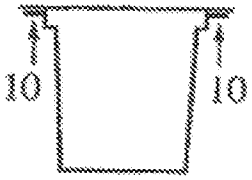


Fig. 9

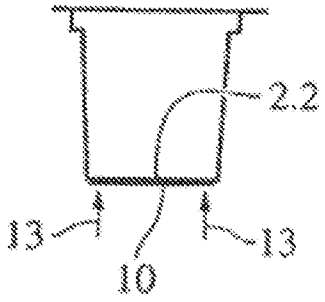


Fig. 10

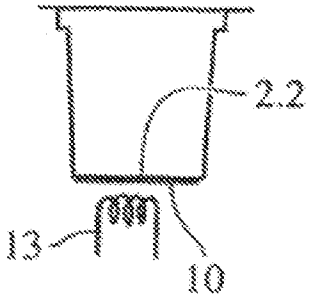


Fig. 11

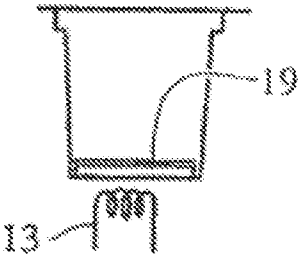


Fig. 12

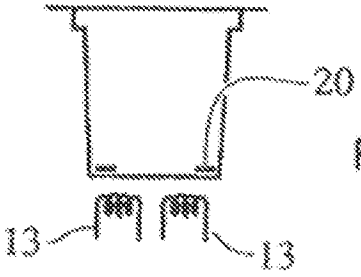


Fig. 13

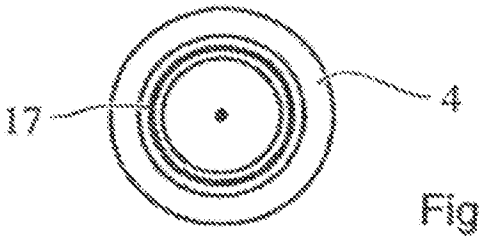


Fig. 14

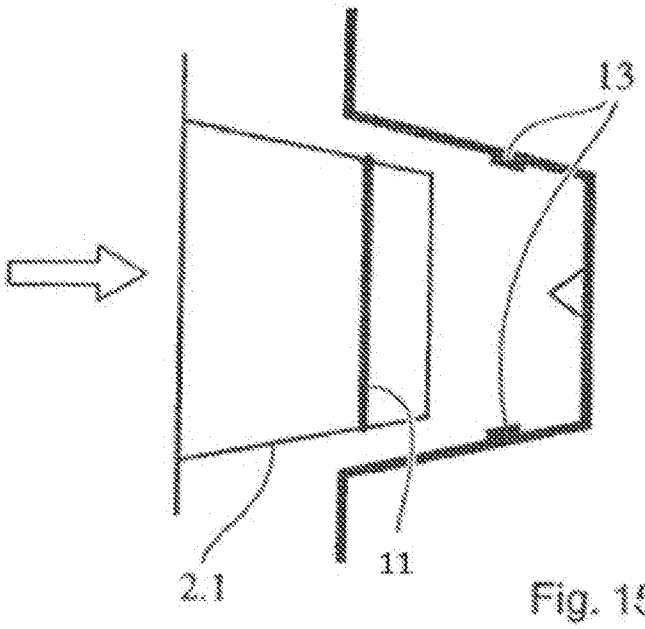


Fig. 15

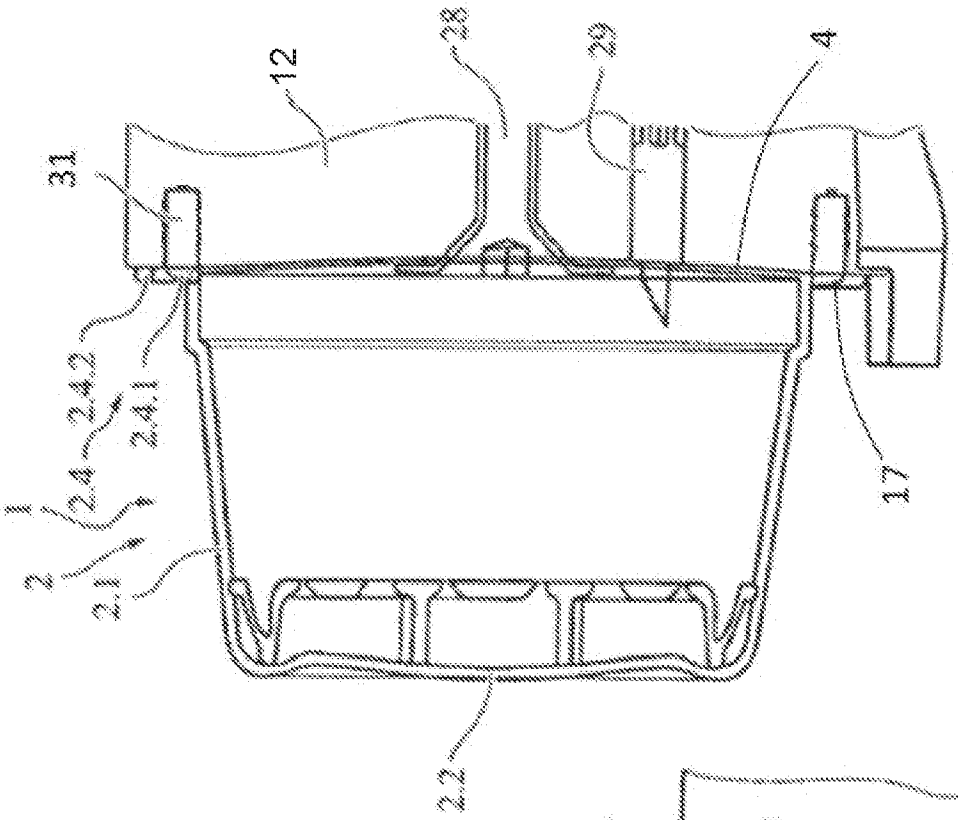


Fig. 16A

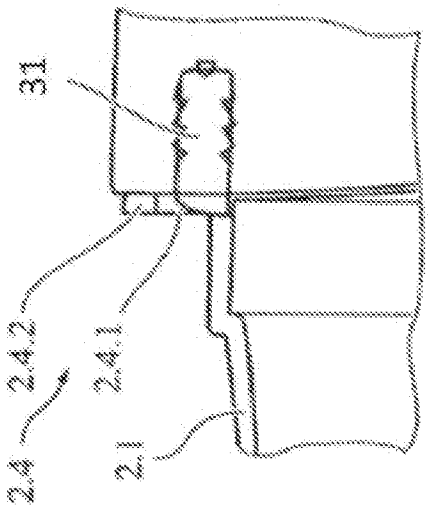


Fig. 16B

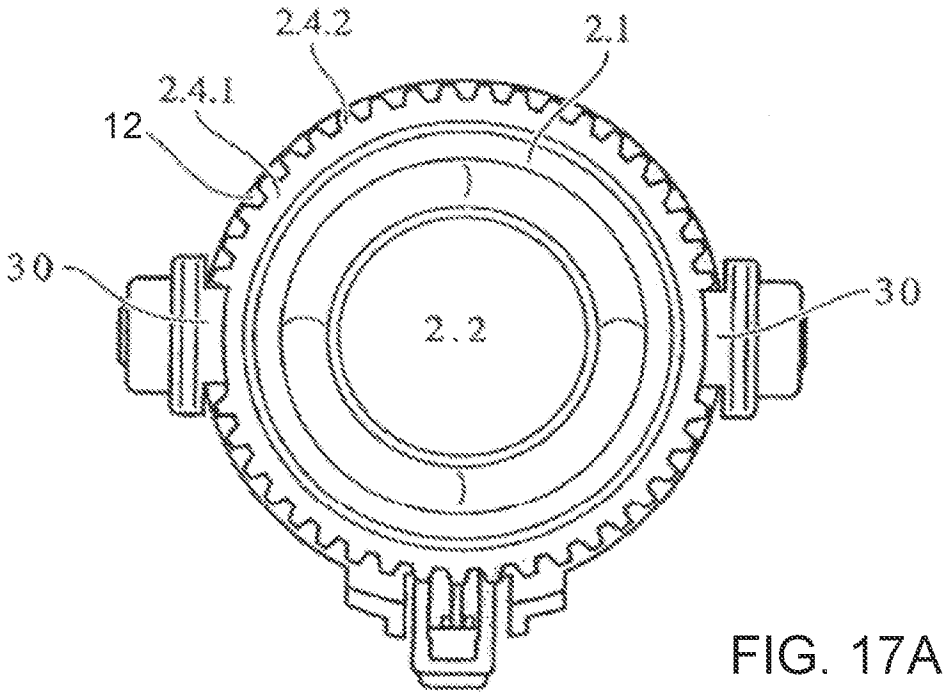


FIG. 17A

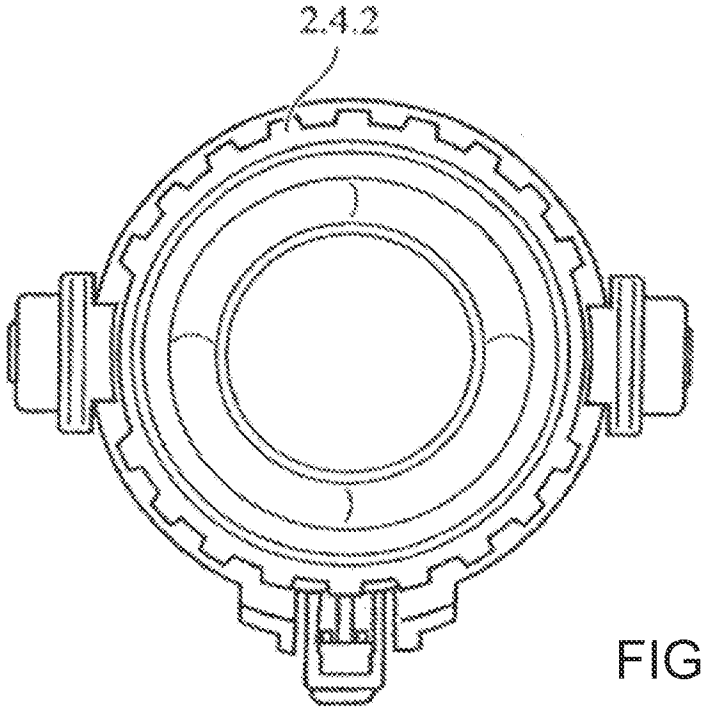


FIG. 17B

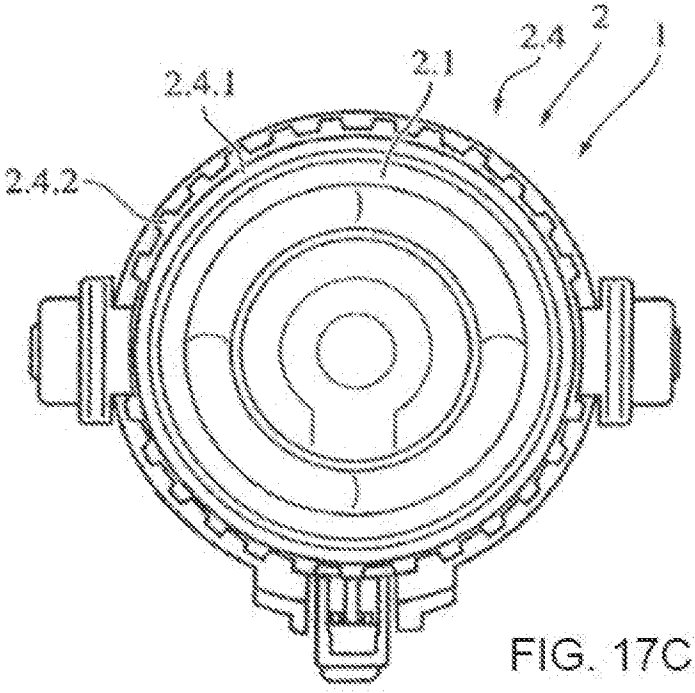


FIG. 17C

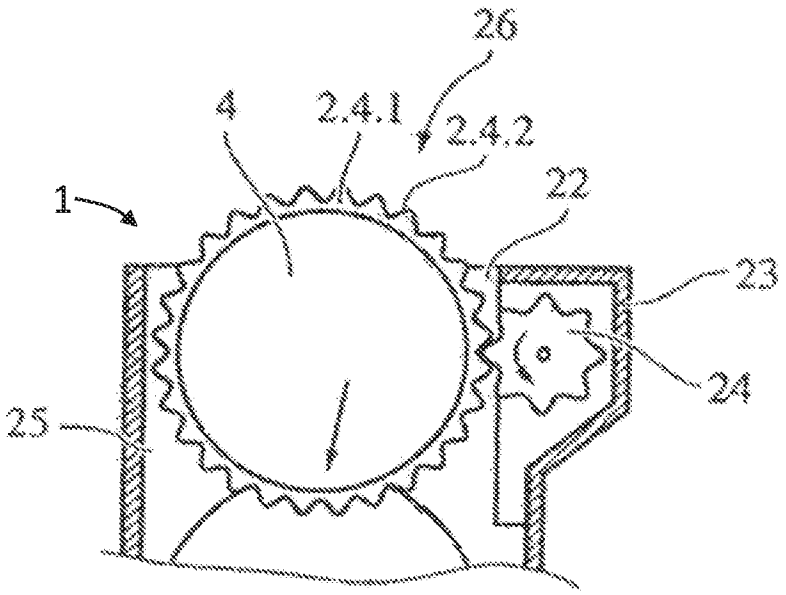


Fig. 18

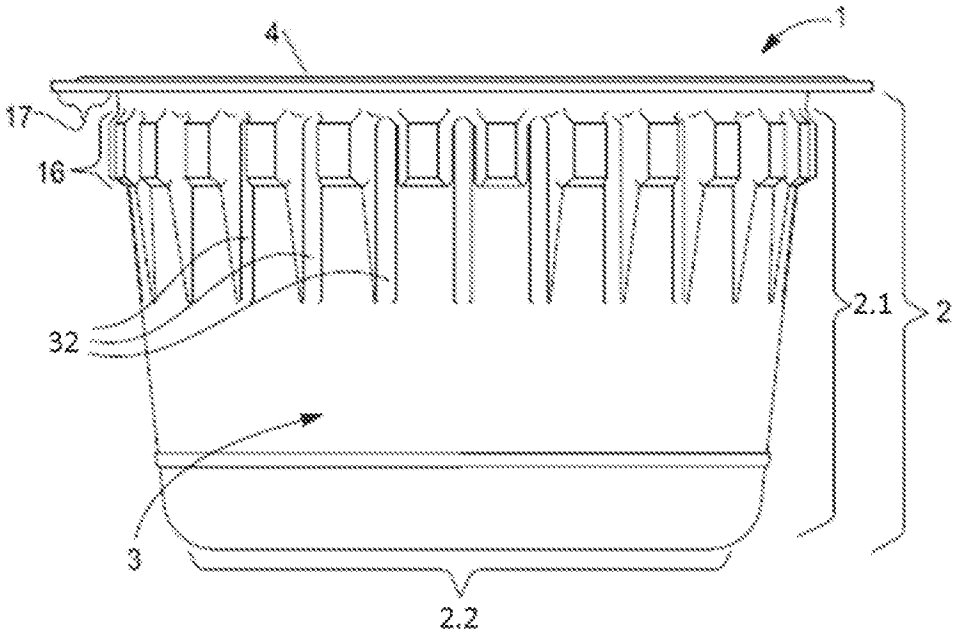


Fig.19

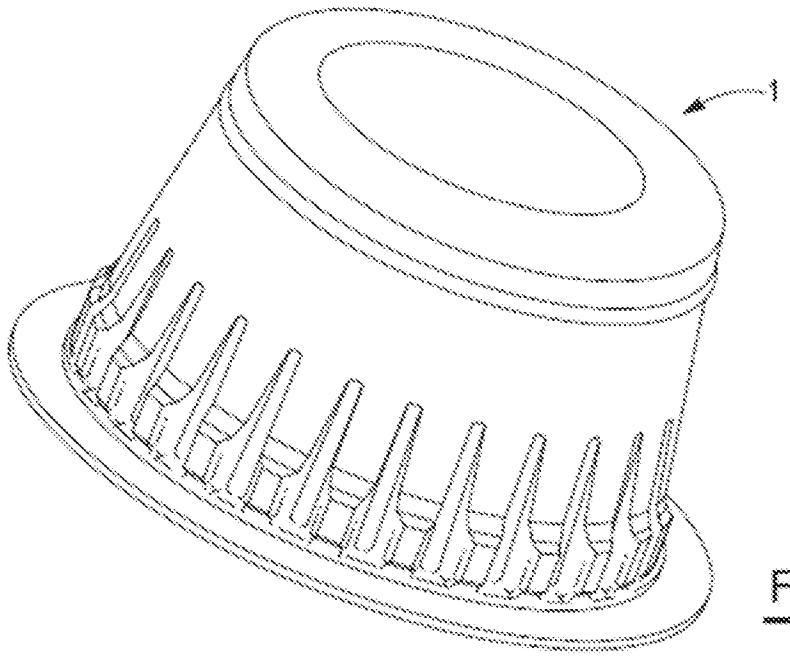


Fig.20

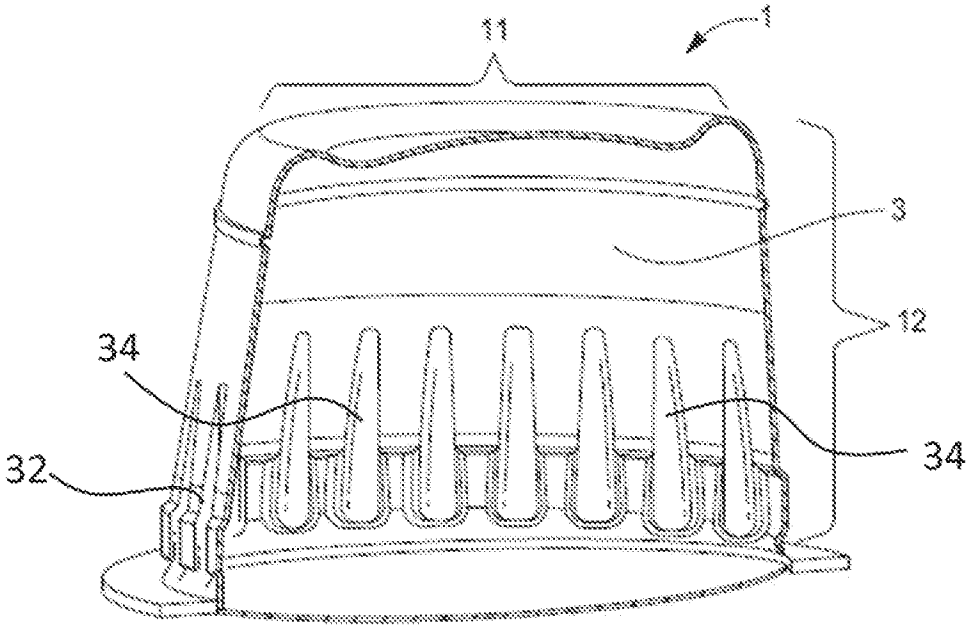


Fig.21

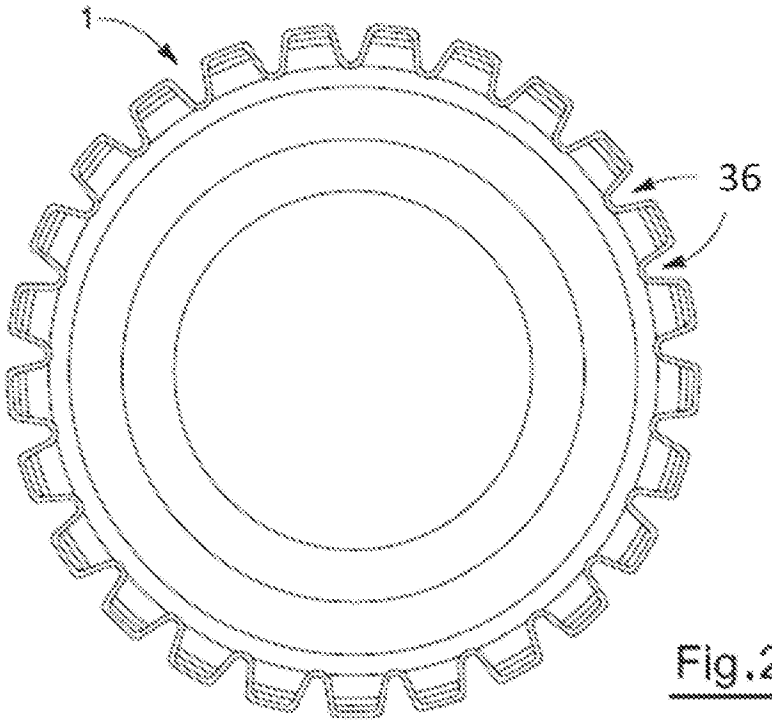


Fig.22

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DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	PORTION CAPSULE HAVING AN IDENTIFIER

As the below named inventor, I hereby declare that:

This declaration is directed to:

☑ The attached application, or

☐ United States application or PCT international application number PCT/EP2011/003677

filed on July 22, 2011

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Marc KRÜGER Date (Optional): 17.01.13

Signature: M. Krüger

Note: An application data sheet (PTO/AIA/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional PTO/SB/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82B (07-13)
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POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☑ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above: 25215

OR

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

☑ The address associated with the above-mentioned Customer Number

OR

☐ The address associated with Customer Number:

OR

Firm or Individual Name					
Address					
City		State		Zip	
Country					
Telephone		Email			

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

K-fee System GmbH

☐ Inventor or Joint Inventor (title not required below)

☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)

☑ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)

☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature		Date (Optional)	24.08.2016
Name	Mark Krüger		
Title	CEO		

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ Total of forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	1859.029USC12
	Application Number	
Title of Invention	PORTION CAPSULE HAVING AN IDENTIFIER	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2:

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Marc		Krüger	

Residence Information (Select One) ○ US Residency ◉ Non US Residency ○ Active US Military Service

City	Bergisch Gladbach	Country of Residence i	DE

Mailing Address of Inventor:

Address 1	Zaunkönigweg 8		
Address 2			
City	Bergisch Gladbach	State/Province	
Postal Code	51467	Country i	DE

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence Information of this application.**

Customer Number	25215		
Email Address	patmail@patentco.com	Add Email	Remove Email

Application Information:

Title of the Invention	PORTION CAPSULE HAVING AN IDENTIFIER		
Attorney Docket Number	1859.029USC12	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	12	Suggested Figure for Publication (if any)	1

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	1859.029USC12
	Application Number	
Title of Invention	PORTION CAPSULE HAVING AN IDENTIFIER	

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)
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Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.
When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status			Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Continuation of	15/646980	2017-07-11

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	1859.029USC12
	Application Number	
Title of Invention	PORTION CAPSULE HAVING AN IDENTIFIER	

Prior Application Status			Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
15/646980	Division of	15/211823	2016-07-15
Prior Application Status			Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
15/211823	Division of	13/744623	2013-01-18
Prior Application Status			Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
13/744623	Continuation of	PCT/EP2011003677	2011-07-22

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button.

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)[i] the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

			Remove
Application Number	Country[i]	Filing Date (YYYY-MM-DD)	Access Code[i] (if applicable)
10 2011 010 534.4	DE	2011-02-07	
			Remove
Application Number	Country[i]	Filing Date (YYYY-MM-DD)	Access Code[i] (if applicable)
10 2010 044 251.8	DE	2010-09-02	
			Remove
Application Number	Country[i]	Filing Date (YYYY-MM-DD)	Access Code[i] (if applicable)
10 2010 031 988.0	DE	2010-07-22	

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	1859.029USC12
	Application Number	
Title of Invention	PORTION CAPSULE HAVING AN IDENTIFIER	

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	1859.029USC12
	Application Number	
Title of Invention	PORTION CAPSULE HAVING AN IDENTIFIER	

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	1859.029USC12
	Application Number	
Title of Invention	PORTION CAPSULE HAVING AN IDENTIFIER	

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

◉ Assignee	○ Legal Representative under 35 U.S.C. 117	○ Joint Inventor
○ Person to whom the inventor is obligated to assign.	○ Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor:	

If the Applicant is an Organization check here. ☒

Organization Name	K-FEE SYSTEM GMBH

Mailing Address Information For Applicant:

Address 1	Senefelder Str. 44		
Address 2			
City	Bergisch Gladbach	**State/Province**	
Country	DE	Postal Code	51469
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button.

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	1859.029USC12
	Application Number	
Title of Invention	PORTION CAPSULE HAVING AN IDENTIFIER	

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

If the Assignee or Non-Applicant Assignee is an Organization check here. ☐

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1			
Address 2			
City		**State/Province**	
Country i		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.

Signature:

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). **However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).**

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/Paul J. Palinski/			Date (YYYY-MM-DD)	2021-12-10
First Name	Paul J.	Last Name	Palinski	Registration Number	71,080

Additional Signature may be generated within this form by selecting the Add button.

PTO/AIA/14 (02-18)
Approved for use through 11/30/2020. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	1859.029USC12
	Application Number	
Title of Invention	PORTION CAPSULE HAVING AN IDENTIFIER	

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent CooperationTreaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	PORTION CAPSULE HAVING AN IDENTIFIER
First Named Inventor/Applicant Name:	Marc Krüger
Filer:	Paul J. Palinski/BECKY BALLARD
Attorney Docket Number:	1859.029USC12

Filed as Large Entity

Filing Fees for Track I Prioritized Examination - Nonprovisional Application under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
UTILITY APPLICATION FILING	1011	1	320	320
UTILITY SEARCH FEE	1111	1	700	700
UTILITY EXAMINATION FEE	1311	1	800	800
REQUEST FOR PRIORITIZED EXAMINATION	1817	1	4200	4200
Pages:				
Claims:				
Miscellaneous-Filing:				
PROCESSING FEE, EXCEPT PROV. APPLS.	1830	1	140	140

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
		Total in USD ($)		**6160**

Electronic Acknowledgement Receipt

EFS ID:	44482262
Application Number:	17547363
International Application Number:	
Confirmation Number:	6426
Title of Invention:	PORTION CAPSULE HAVING AN IDENTIFIER
First Named Inventor/Applicant Name:	Marc Krüger
Customer Number:	25215
Filer:	Paul J. Palinski/BECKY BALLARD
Filer Authorized By:	Paul J. Palinski
Attorney Docket Number:	1859.029USC12
Receipt Date:	10-DEC-2021
Filing Date:	
Time Stamp:	10:22:52
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$6160
RAM confirmation Number	E2021B0A23170623
Deposit Account	501097
Authorized User	BECKY BALLARD

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal of New Application	Transmittal_1859_029USC12_KRU0022_WO_US_T13.pdf	237281 a85796d1c4a8f5f2871c7aa30f51cbcad5b78a0c	no	2
Warnings:					
Information:					
2	TrackOne Request	TrackOne_1859_029USC12_KRU0022_WO_US_T13.pdf	114490 0c4df8912f53522bd381a361a875ceb212c9076d	no	2
Warnings:					
Information:					
3		ParentApplication.pdf	963467 50750b23ddcd9488144aeb92bed5b80edc5b3aa6	yes	20

Multipart Description/PDF files in .zip description

Document Description	Start	End
Specification	1	18
Claims	19	19
Abstract	20	20

Warnings:					
Information:					
4	Drawings-only black and white line drawings	ParentDrawings.pdf	622346 81658e0169e4709475eb974aa72ccce3a5764ae4	no	12
Warnings:					
Information:					
5		PreliminaryAmendment_1859_029USC12_KRU0022_WO_US_T13.pdf	184537 ec3c5f7f880caef1a0d15db111e07c12aa666d68	yes	13

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Preliminary Amendment	1	1
	Abstract	2	2
	Specification	3	3
	Drawings-only black and white line drawings	4	4
	Claims	5	11
	Applicant Arguments/Remarks Made in an Amendment	12	13

Warnings:					
Information:					
6	Specification	SubstituteSpecification_CleanCopy_1859_029USC12_KRU0022_WO_US_T13.pdf	237494 d90fdcbf97783d3128de4841b00f992b2449caa8	no	28
Warnings:					
Information:					
7	Specification	SubstituteSpecification_MarkedUpCopy_1859_029USC12_KRU0022_WO_US_T13.pdf	253066 a250b40a13eb72b356bafffe4fcb8287eeb9e06f	no	29
Warnings:					
Information:					
8	Drawings-only black and white line drawings	ReplacementSheets_1859_029USC12_KRU0022_WO_US_T13.pdf	2543438 c6974814c0f8a43f04b6f67ab924d27dea152b99	no	12
Warnings:					
Information:					
9	Interim Copy of the Foreign Priority Document	CertifiedEnglishTranslationOf_DE102010031988_0.pdf	2253563 5fbdb09e747a7f00fb2a0694eedb58296671364f	no	22
Warnings:					
Information:					

10	Interim Copy of the Foreign Priority Document	CertifiedEnglishTranslationOf_DE102010044251_8.pdf	3763385 4ca493419f83c432bcdfe9b6c3ff3d6fe5fd8b6b	no	33
Warnings:					
Information:					
11	Interim Copy of the Foreign Priority Document	CertifiedEnglishTranslationOf_DE102011010534_4.pdf	3169169 3d1d17d593e541a65c744edc04244367376cddcc	no	21
Warnings:					
Information:					
12	Oath or Declaration filed	Oath_Dec_1859_029USC12_KRU0022_WO_US_T13.pdf	117433 88d5e1a8855041d951f0e25c49b61717ea1d6734	no	1
Warnings:					
Information:					
13	Power of Attorney	PowerOfAttorney_1859_029USC12_KRU0022_WO_US_T13.pdf	636910 0b703ac982a98720cebef667023a24277a8067e9	no	1
Warnings:					
Information:					
14	Application Data Sheet	ApplicationDataSheet_1859_029USC12_KRU0022_WO_US_T13.pdf	112865 2bc08601a67c18751e320edf22cea6d515f76644	no	9
Warnings:					
Information:					
This is not an USPTO supplied ADS fillable form					
15	Fee Worksheet (SB06)	fee-info.pdf	48329 052b5826df817ba07893f3cad2ae31e50e0ce28f	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	15257773		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 17/547,363

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	320
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	700
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	800
TOTAL CLAIMS (37 CFR 1.16(i))	20 minus 20 =	*			OR	x 100 =	0.00
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2 minus 3 =	*				x 480 =	0.00
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						0.00
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0.00
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	1820

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)		RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/547,363	12/10/2021	Marc Krüger	1859.029USC12

CONFIRMATION NO. 6426

25215
The Dobrusin Law Firm P.C.
29 W. Lawrence Street
Suite 210
Pontiac, MI 48342

FORMALITIES LETTER

OC000000130611758

Date Mailed: 12/22/2021

NOTICE TO FILE CORRECTED APPLICATION PAPERS

Filing Date Granted

An application number and filing date have been accorded to this application. The application is informal since it does not comply with the regulations for the reason(s) indicated below. Applicant is given **TWO MONTHS** from the date of this Notice within which to correct the informalities indicated below. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

The required item(s) identified below must be timely submitted to avoid abandonment:

- Replacement drawings in compliance with 37 CFR 1.84 and 37 CFR 1.121(d) are required. The drawings submitted are not acceptable because:
  - More than one figure is present and one or more figure appears to be unnumbered or misnumbered in comparison to the brief description of the figures. See Figure(s) 3. The figures must be labeled "Fig." with a consecutive Arabic numeral (1, 2, etc.) or an Arabic numeral and capital letter in the English alphabet (A, B, etc.) and correspond with a brief description having the same figure number. See 37 CFR 1.84(u)(1).
    (1) To correct the figure numbering, replacement figures must be submitted.
    (2) To add a brief description of an unnumbered figure, or correct the reference in the specification to the figures, a proper substitute specification in compliance with 37 CFR 1.121(b)(3) and 1.125, providing a brief description of each drawing figure presented, added or amended to correspond to the corrected numbering of the figures, must be submitted. See also 37 CFR 1.77(b)(9).
  - The figure labeling in the application does not consist of proper figure labeling. Each figure must be labeled "Fig." with a consecutive Arabic numeral (1, 2, etc.) or an Arabic numeral and capital letter in the English alphabet (A, B, etc.), beginning with Figure 1 (or Figure 1A). See 37 CFR 1.84(u)(1). When properly labeled, each brief description of the figures contained in the specification must correspond to a properly labeled figure.
    - To correct the figure numbering, replacement figures must be submitted.
    - To correct the reference in the specification, a proper substitute specification in compliance with 37 CFR 1.121(b)(3) and 1.125, providing a brief description of each drawing figure presented, added or amended to correspond to the corrected numbering of the figures, must be submitted. See also 37 CFR 1.77(b)(9).
  - The application contains a section in the specification containing the brief description of the figures, but is missing the description of Figure(s) **3A, 3B#** as required by 37 CFR 1.74 and 37 CFR 1.77(b)(9). A brief description of each drawing figure presented is required to satisfy this requirement.

- To add a brief description of a figure, a proper substitute specification in compliance with 37 CFR 1.121(b)(3) and 1.125, providing a brief description of each drawing figure presented, must be submitted. See also 37 CFR 1.77(b)(9).

Note: If applicant wishes to delete the undescribed figure, replacement sheets must be submitted to renumber the figure(s) consecutively.

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

Replies must be received in the USPTO within the set time period or must include a proper Certificate of Mailing or Transmission under 37 CFR 1.8 with a mailing or transmission date within the set time period. For more information and a suggested format, see Form PTO/SB/92 and MPEP 512.

Replies should be mailed to:

Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web, including a copy of this Notice and selecting the document description "Applicant response to Pre-Exam Formalities Notice". https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html

For more information about EFS-Web please call the USPTO Electronic Business Center at 1-866-217-9197 or visit our website at http://www.uspto.gov/ebc.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/afessehaye/

IPR2024-00239
Nespresso USA, Inc. Ex. 1002
Page 139 of 598

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
17/547,363	12/10/2021		1820	1859.029USC12	20	2

CONFIRMATION NO. 6426

FILING RECEIPT

25215
The Dobrusin Law Firm P.C.
29 W. Lawrence Street
Suite 210
Pontiac, MI 48342

OC000000130611757

Date Mailed: 12/22/2021

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

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Inventor(s)

Marc Krüger, Bergisch Gladbach, GERMANY;

Applicant(s)

K-FEE SYSTEM GMBH, Bergisch Gladbach, GERMANY;

Power of Attorney: The patent practitioners associated with Customer Number 25215

Domestic Priority data as claimed by applicant

This application is a CON of 15/646,980 07/11/2017
which is a DIV of 15/211,823 07/15/2016 ABN
which is a DIV of 13/744,623 01/18/2013 ABN
which is a CON of PCT/EP2011/003677 07/22/2011

Foreign Applications (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.)
GERMANY 10 2011 010 534.4 02/07/2011 No Access Code Provided
GERMANY 10 2010 044 251.8 09/02/2010 No Access Code Provided
GERMANY 10 2010 031 988.0 07/22/2010 No Access Code Provided

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If Required, Foreign Filing License Granted: 12/21/2021
The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 17/547,363**
Projected Publication Date: To Be Determined - pending completion of Corrected Papers
Non-Publication Request: No
Early Publication Request: No
Title

PORTION CAPSULE HAVING AN IDENTIFIER

Preliminary Class

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

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Filed via EFS @ USPTO.gov on January 3, 2022
Practitioner's Docket No. 1859.029USC12 (KRU0022-WO-US-T13)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Marc Krüger	Art Unit: TBA
Application No.: 17/547,363	Examiner: TBA
Filed: December 10, 2021	Conf. No.: 6426

For: PORTION CAPSULE HAVING AN IDENTIFIER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicant submits this statement in accordance with its duty of disclosure under 37 C.F.R. §§ 1.56, 1.97, and 1.98. The submission made herewith is in no way intended as an admission that the cited items constitute material prior art or otherwise would render the claims unpatentable in any way. The submission also is in no way intended to substitute for the Examiner's own independent investigation.

Form PTO/SB/08a is submitted herewith. Copies of foreign patent documents and non-patent literature have not been provided due to their presence in the parent application to this application (see MPEP 609.02(A)(2)), and Applicant notes that this section requires the Examiner to consider all of the references previously submitted to the USPTO even if not listed in any Information Disclosure Statement filed in this application. Applicant is resubmitting these references on the attached form PTO/SB/08a so that all of the references are listed on the face of the patent. However, to the extent that any references have been inadvertently overlooked, or otherwise are not resubmitted on this form, Applicant respectfully requests consideration of the previously submitted references as is set forth in MPEP 609.02(A)(2) and inclusion of such references on the face of the patent. Applicant respectfully solicits the Examiner's consideration of the cited references and entry thereof into the record of this application.

This Information Disclosure Statement is being submitted prior to the mailing of a first Office Action or Notice of Allowance. No fees are believed to be due; however, if any fee is due with the filing of this paper, please charge the amount to Deposit Account 50-1097.

Date: January 3, 2022

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	Application Number	17/547,363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	TBA
	Examiner Name	TBA
	Attorney Docket Number	1859.029USC12

U.S. PATENTS					
Examiner Initials*	Cite No.	Patent Number	Kind Code	Issue Date	Name of Patentee or Applicant of cited Document
	1.	2,778,739		01/22/1957	Rodth
	2.	3,183,096		05/11/1965	Hiscock
	3.	3,501,896	A	03/24/1970	Stoeser et al.
	4.	3,521,207		07/21/1970	Britton et al.
	5.	3,631,793		06/23/1969	Bednartz
	6.	3,640,727		02/08/1972	Heusinkveld
	7.	4,136,202		01/23/1979	Favre
	8.	4,389,925		06/28/1983	Piana
	9.	4,534,985		08/13/1985	Gasau
	10.	4,540,595		09/10/1985	Acitelli et al.
	11.	4,644,151	A	05/12/1987	Piet
	12.	4,676,482	A1	11/04/1987	Marvin et al.
	13.	4,742,645		05/10/1988	Johnston
	14.	4,846,052		07/11/1989	Farve et al.
	15.	4,859,337		08/22/1989	Woltermann
	16.	4,860,645	A	08/29/1989	Van Der Lijn et al.
	17.	4,867,993		09/19/1989	Nordskog
	18.	4,976,179		12/11/1990	Lacrouts-Cazenave
	19.	5,012,629		05/07/1991	Rehman et al.
	20.	5,028,769	A	07/02/1991	Claypool et al.
	21.	5,108,768	A	04/28/1992	So
	22.	5,194,553	A	03/16/1993	Freeburne et al.
	23.	5,242,702	A	09/07/1993	Fond
	24.	5,243,164	A	09/07/1993	Erickson et al.
	25.	5,251,758	A	10/12/1993	Kolacek
	26.	5,285,041	A	02/08/1994	Wright
	27.	5,325,765	A	07/16/1996	Takashima
	28.	5,402,707	A	04/04/1995	Fond et al.
	29.	5,460,078	A	10/24/1995	Weller
	30.	5,496,573	A	03/05/1996	Tsuji et al.
	31.	5,501,945	A	03/26/1996	Kanakkanatt
	32.	5,535,765	A	07/16/1996	Takashima
	33.	5,601,716	A	02/11/1997	Heinrich et al.
	34.	5,637,850	A	06/10/1997	Honda
	35.	5,656,311	A	08/12/1997	Fond
	36.	5,656,316		08/12/1997	Fond et al.
	37.	5,656,318	A	08/12/1997	Fond et al.
	38.	5,677,522	A	10/14/1997	Rice et al.

IPR2024-00239
Nespresso USA, Inc. Ex. 1002
Page 145 of 598

	39.	5,725,261	A	03/10/1998	Rahn
	40.	5,840,189	A	11/24/1998	Sylvan et al.
	41.	5,888,549	A	03/30/1999	Buchholz et al.
	42.	5,895,672	A	04/20/1999	Cooper
	43.	5,897,899	A	04/27/1999	Fond
	44.	5,917,165	A	06/29/1999	Platt et al.
	45.	5,941,055	A	08/24/1999	Coates
	46.	5,948,455	A	09/07/1999	Schaeffer et al
	47.	5,980,743	A	11/09/1999	Bairischer
	48.	5,994,677	A	11/30/1999	Akerlind
	49.	6,025,000		02/15/2000	Fond et al.
	50.	6,153,026	A	11/28/2000	Michotte
	51.	6,199,780	B1	03/13/2001	Görlitz
	52.	6,202,929	A	03/20/2001	Verschuur et al.
	53.	6,213,326	B1	04/10/2001	Denner et al.
	54.	6,299,926	B1	10/09/2001	Balakrishnan et al.
	55.	6,440,256	B1	08/27/2002	Gordon et al.
	56.	6,451,332	B1	09/17/2002	Tanaka et al.
	57.	6,527,181	B1	03/04/2003	Kleeberg et al.
	58.	6,589,577	B2	07/08/2003	Lazaris et al.
	59.	6,598,800	A1	07/29/2003	Schmit et al.
	60.	6,607,762	B2	08/19/2003	Lazaris et al.
	61.	6,627,244	B2	09/30/2003	Omura
	62.	6,645,537	B2	11/11/2003	Sweeney et al.
	63.	6,655,260	B2	12/02/2003	Lazaris
	64.	6,817,538	B2	11/16/2004	Afzali-Ardakani et al.
	65.	6,861,086	B2	03/01/2005	Buckingham et al.
	66.	6,948,420	B2	09/27/2005	Kirschner et al.
	67.	6,994,879	B2	02/07/2006	Cirigliano et al.
	68.	7,408,094	B2	08/05/2008	Little et al.
	69.	7,444,925	B2	02/07/2006	Cirigli
	70.	7,464,518	B2	12/16/2008	Ansinn
	71.	7,543,527	B2	06/09/2009	Schmed
	72.	7,552,672	B2	06/30/2009	Schmed
	73.	7,595,870	B2	09/29/2009	Ringlien
	74.	7,673,558	B2	03/09/2010	Panesar et al.
	75.	7,685,930	B2	03/30/2010	Mandralis et al.
	76.	7,815,953	B2	10/19/2010	Mastropasqua et al.
	77.	7,856,920	B2	12/28/2010	Schmed et al.
	78.	7,935,646	B2	05/03/2011	Viazmensky et al.

IPR2024-00239
Nespresso USA, Inc. Ex. 1002
Page 146 of 598

	79.	7,946,217	B2	05/24/2011	Favre et al.
	80.	7,981,451	B2	07/19/2011	Ozanne
	81.	8,039,029	B2	10/18/2011	Ozanne
	82.	8,039,034	B2	10/18/2011	Ozanne
	83.	8,087,347	B2	01/03/2012	Halliday et al.
	84.	8,088,423	B2	01/03/2012	Ohresser et al.
	85.	8,101,928	B2	01/24/2012	Hill et al.
	86.	8,109,200	B2	02/07/2012	Hansen
	87.	8,114,461	B2	02/14/2012	Perlman et al.
	88.	8,163,318	B2	04/24/2012	Ozanne et al.
	89.	8,168,908	B2	05/01/2012	Heimann
	90.	8,257,766	B2	09/04/2012	Yoakim et al.
	91.	8,276,639	B2	10/02/2012	Binacchi
	92.	8,307,754	B2	11/13/2012	Ternite et al.
	93.	8,361,527	B2	01/29/2013	Winkler et al.
	94.	8,474,368	B2	07/02/2013	Kilber et al.
	95.	8,491,948	B2	07/23/2013	Ozanne et al.
	96.	8,491,976	B2	07/23/2013	Sato et al.
	97.	8,505,440	B2	08/13/2013	Kirschner et al.
	98.	8,512,886	B2	08/20/2013	Ozanne
	99.	8,695,484	B2	04/15/2014	Mori
	100	8,734,881	B2	05/27/2014	Yoakim et al.
	101	8,747,775	B2	06/10/2014	Sandvick
	102	8,794,125	B1	08/05/2014	Rivera
	103	8,906,436	B2	12/09/2014	Nowak
	104	8,916,220	B2	12/23/2014	Mahlich et al.
	105	8,956,672	B2	02/17/2015	Yoakim et al.
	106	9,049,958	B2	06/09/2015	Fischer
	107	9,072,402	B2	07/07/2015	Ryser
	108	9,079,705	B2	07/14/2015	Digiuni
	109	9,150,347	B2	10/06/2015	Scheiber
	110	9,204,751	B2	12/08/2015	Peterson
	111	9,216,854	B2	12/22/2015	Schreiber
	112	9,227,837	B2	01/05/2016	Reinmuth
	113	9,271,602	B2	03/01/2016	Beaulieu et al.
	114	9,290,317	B2	03/22/2016	Quinn et al.
	115	9,295,278	B2	03/29/2016	Nowak
	116	9,320,385	B2	04/26/2016	Spiegel et al.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	TBA
	Examiner Name	TBA
	Attorney Docket Number	1859.029USC12

	117	9,357,791	B2	06/07/2016	Fountain et al.
	118	9,359,126	B2	06/07/2016	Wong et al.
	119	9,359,128	B2	06/07/2016	Mahlich
	120	9,392,902	B2	07/19/2016	Parentes et al.
	121	9,394,101	B2	07/19/2016	Empl
	122	9,409,703	B2	08/09/2016	Krüger et al.
	123	9,409,704	B2	08/09/2016	Digiuni et al.
	124	9,415,931	B2	08/16/2016	Gerbaulet et al.
	125	9,428,328	B2	08/30/2016	Trombetta et al.
	126	9,428,329	B2	08/30/2016	Trombetta et al.
	127	9,434,525	B2	09/06/2016	Fabozzi et al.
	128	9,486,108	B1	11/08/2016	Douglas et al.
	129	9,676,538	B2	06/13/2017	Evers et al.
	130	9,708,086	B2	07/18/2017	Bianchi
	131	9,770,129	B2	09/220176	Remo et al.
	132	9,808,112	B2	11/07/2017	Favero et al.
	133	9,969,564	B2	05/15/2018	Krüger

U.S. PATENT APPLICATION PUBLICATIONS					
Examiner Initials*	Cite No.	Publication Number	Kind Code	Publication Date	Name of Patentee or Applicant of cited Document
	1.	2001/0038204	A1	11/08/2001	Nojima et al
	2.	2001/0047724	A1	12/06/2001	Lazaris
	3.	2001/0048957	A1	12/06/2001	Lazaris et al.
	4.	2001/0181005	A1	08/09/2007	Kirschner et al.
	5.	2002/0020659	A1	02/21/2002	Sweeney
	6.	2002/0048621	A1	04/25/2002	Boyd et al.
	7.	2002/0085164	A1	07/04/2002	Stanford-Clark
	8.	2002/0088807	A1	07/11/2002	Perkovic et al.
	9.	2002/0110626	A1	08/15/2002	Buckingham et al.
	10.	2002/0148356	A1	10/17/2002	Lazaris et al.
	11.	2003/0005826	A1	01/09/2003	Sargent et al.
	12.	2003/0033938	A1	02/20/2003	Halliday et al.
	13.	2003/0039731	A1	02/27/2003	Dalton et al.
	14.	2003/0121979	A1	07/03/2003	Haens et al.
	15.	2003/0172813	A1	09/18/2003	Schifferle
	16.	2003/0222089	A1	12/04/2003	Hale
	17.	2004/0005384	A1	01/08/2004	Cai
	18.	2004/0045443	A1	03/11/2004	Lazaris et al.
	19.	2004/0089158	A1	05/13/2004	Mahlich
	20.	2004/0089602	A1	05/13/2004	Heinrich et al.

IPR2024-00239
Nespresso USA, Inc. Ex. 1002
Page 148 of 598

	21.	2004/0115310	A1	06/17/2004	Yoakim et al.
	22.	2004/0118295	A1	06/24/2004	Angeles
	23.	2004/0142070	A1	07/22/2004	Haen
	24.	2004/0155113	A1	08/12/2004	Urano et al
	25.	2004/0182250	A1	09/23/2004	Halliday et al.
	26.	2004/0188459	A1	09/30/2004	Halliday et al.
	27.	2005/0016383	A1	01/27/2005	Kirschner et al.
	28.	2005/0045566	A1	03/03/2005	Larkin et al.
	29.	2005/0051478	A1	03/10/2005	Karanikos et al.
	30.	2005/0061478	A1	03/24/2005	Huang
	31.	2005/0150391	A1	07/14/2005	Schifferle
	32.	2005/0160919	A1	07/28/2005	Balkau
	33.	2005/0183581	A1	08/25/2005	Kirschner et al.
	34.	2005/0266122	A1	12/01/2005	Franceschi
	35.	2006/0010744	A1	01/19/2006	Schumacher
	36.	2006/0032427	A1	02/16/2006	Ishii et al.
	37.	2006/0084344	A1	04/20/2006	Bonneh
	38.	2006/0107841	A1	05/25/2006	Schifferle
	39.	2006/0194004	A1	08/31/2006	Niemoller at al.
	40.	2006/0228447	A1	10/12/2006	Ganesan et al.
	41.	2006/0236871	A1	10/26/2006	Ternite et al.
	42.	2007/0144355	A1	06/28/2007	Denisart et al.
	43.	2007/0148290	A1	06/28/2007	Ternite et al.
	44.	2007/0157821	A1	07/12/2007	Panesar et al.
	45.	2007/0181005	A1	08/09/2007	Kirschner et al.
	46.	2007/0181412	A1	08/09/2007	Raunig
	47.	2007/0203587	A1	08/30/2007	Erlandsson et al.
	48.	2007/0257118	A1	11/08/2007	Riley et al.
	49.	2008/0024536	A1	01/31/2008	Hirano et al.
	50.	2008/0026121	A1	01/31/2008	Mastropasqua et al.
	51.	2008/0028946	A1	02/07/2008	Kirschner et al.
	52.	2008/0038441	A1	02/14/2008	Kirschner
	53.	2008/0085356	A1	04/10/2008	Colliver et al.
	54.	2008/0116105	A1	05/22/2008	Statham
	55.	2008/0148948	A1	06/26/2008	Evers et al.
	56.	2008/0187638	A1	08/07/2008	Hansen
	57.	2008/0245236	A1	10/09/2008	Ternite et al.
	58.	2008/0299262	A1	12/04/2008	Reati
	59.	2008/0302251	A1	12/11/2008	Rijskamp et al.
	60.	2009/0004343	A1	01/01/2009	Xiong et al.
	61.	2009/0007793	A1	01/08/2009	Glucksman et al.

IPR2024-00239
Nespresso USA, Inc. Ex. 1002
Page 149 of 598

	62.	2009/0007796	A1	01/08/2009	Maddalena Ricotti
	63.	2009/0092711	A1	04/09/2009	Ninh et al.
	64.	2009/0126577	A1	05/21/2009	Ternite
	65.	2009/0136626	A1	05/28/2009	Mueller
	66.	2009/0211458	A1	08/27/2009	Denisart et al.
	67.	2009/0211713	A1	08/27/2009	Binacchi
	68.	2009/0223375	A1	09/10/2009	Verbeek
	69.	2009/0249961	A1	10/08/2009	Cheng
	70.	2009/0289121	A1	11/26/2009	Maeda et al.
	71.	2009/0291379	A1	11/26/2009	Masaya Oota, et al.
	72.	2009/0324788	A1	12/31/2009	Roy et al.
	73.	2009/0324791	A1	12/31/2009	Ohresser et al.
	74.	2010/0000667	A1	01/07/2010	Funnell
	75.	2010/0028495	A1	02/04/2010	Novak et al.
	76.	2010/0050880	A1	03/04/2010	Suter et al.
	77.	2010/0051532	A1	03/04/2010	Wawrla et al.
	78.	2010/0054532	A1	03/04/2010	Mitte et al.
	79.	2010/0072272	A1	03/25/2010	Angros
	80.	2010/0078480	A1	04/01/2010	Aker
	81.	2010/0108541	A1	05/06/2010	Roberto
	82.	2010/0132564	A1	06/03/2010	Ozanne et al.
	83.	2010/0147418	A1	06/17/2010	Piana
	84.	2010/0147872	A1	06/17/2010	Saxton et al.
	85.	2010/0172951	A1	07/08/2010	Wasielewski
	86.	2010/0181378	A1	07/22/2010	Hayakawa et al.
	87.	2010/0196545	A1	08/05/2010	Buffet et al.
	88.	2010/0239717	A1	09/23/2010	Yoakim et al.
	89.	2010/0239733	A1	09/23/2010	Yoakim et al.
	90.	2010/0239734	A1	09/23/2010	Yoakim,et al.
	91.	2010/0260915	A1	10/14/2010	Young
	92.	2010/0263329	A1	10/21/2010	Nash
	93.	2010/0264640	A1	10/21/2010	Lane et al.
	94.	2010/0288131	A1	11/18/2010	Kilber et al.
	95.	2010/0288133	A1	11/18/2010	Litzka et al.
	96.	2010/0303964	A1	12/02/2010	Beaulieu et al.
	97.	2010/0308061	A1	12/09/2010	Loulourgas
	98.	2011/0005399	A1	01/31/2011	Epars et al.
	99.	2011/0008913	A1	01/13/2011	Wadhwa et al.
	100	2011/0020500	A1	01/27/2011	Eichler et al.
	101	2011/0033580	A1	02/10/2011	Biesheuvel et al.
	102	2011/0041702	A1	02/24/2011	Yoakim
	103	2011/0064852	A1	03/17/2011	Mann

	104	2011/0076361	A1	03/31/2011	Peterson et al.
	105	2011/0089135	A1	04/21/2011	Simon et al.
	106	2011/0097450	A1	04/28/2011	Krüger
	107	2011/0142996	A1	06/16/2011	Krüger
	108	2011/0189350	A1	08/04/2011	Van Belleghem et al.
	109	2011/0189362	A1	08/04/2011	Denisart et al.
	110	2011/0212225	A1	09/01/2011	Mariller
	111	2011/0250333	A1	10/13/2011	Ozanne
	112	2011/0250812	A1	10/13/2011	Pourdeyhimi et al.
	113	2011/0303095	A1	12/15/2011	Fu et al.
	114	2011/0308397	A1	12/22/2011	Sinot et al.
	115	2012/0006685	A1	01/12/2012	Van Engelen
	116	2012/0058226	A1	03/08/2012	Winkler et al.
	117	2012/0060697	A1	03/15/2012	Ozanne
	118	2012/0070542	A1	03/22/2012	Camera et al.
	119	2012/0070543	A1	03/22/2012	Mahlich
	120	2012/0070551	A1	03/22/2012	Mahlich
	121	2012/0097041	A1	04/26/2012	Bucher et al.
	122	2012/0097602	A1	04/26/2012	Tedford
	123	2012/0100264	A1	04/26/2012	Bucher et al.
	124	2012/0121765	A1	05/17/2012	Kamerbeek et al.
	125	2012/0123106	A1	05/17/2012	Joos
	126	2012/0126834	A1	05/24/2012	Kleinhans
	127	2012/0183657	A1	07/19/2012	Marina et al.
	128	2012/0195155	A1	08/02/2012	Gennai et al.
	129	2012/0201933	A1	08/09/2012	Dran et al.
	130	2012/0207893	A1	08/16/2012	Krüger
	131	2012/0207895	A1	08/16/2012	Rivera
	132	2012/0251668	A1	10/04/2012	Wong, et al.
	133	2012/0251672	A1	10/04/2012	Kamerbeek, et al.
	134	2012/0258210	A1	10/11/2012	Wong et al.
	135	2012/0295234	A1	11/22/2012	Rognon et al.
	136	2012/0308688	A1	12/06/2012	Peterson et al.
	137	2013/0055903	A1	03/07/2013	Deuber
	138	2013/0059039	A1	03/07/2013	Trombetta et al.
	139	2013/0064929	A1	03/14/2013	Jarisch et al.
	140	2013/0064937	A1	03/14/2013	Jarisch et al.
	141	2013/0084363	A1	04/04/2013	Krueger et al.
	142	2013/0084376	A1	04/04/2013	Fischer et al.
	143	2013/0101716	A1	04/25/2013	Beaulieu et al.
	144	2013/0122153	A1	05/16/2013	Ferrier et al.
	145	2013/0125762	A1	05/23/2013	Dogan et al.

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Nespresso USA, Inc. Ex. 1002
Page 151 of 598

	146	2013/0129872	A1	05/23/2013	Krueger et al.
	147	2013/0129876	A1	05/23/2013	Ye et al.
	148	2013/0136828	A1	05/30/2013	Anghileri
	149	2013/0149424	A1	06/13/2013	Fischer
	150	2013/0156897	A1	06/20/2013	Goldstein
	151	2013/0206011	A1	08/15/2013	Ozanne et al.
	152	2013/0209610	A1	08/15/2013	Carder et al.
	153	2013/0209618	A1	08/15/2013	Trombetta et al.
	154	2013/0209619	A1	08/15/2013	Mahlich
	155	2013/0209620	A1	08/15/2013	Ozanne et al.
	156	2013/0209622	A1	08/15/2013	Fountain et al.
	157	2013/0216663	A1	08/22/2013	Dogan et al.
	158	2013/0230627	A1	09/05/2013	Hansen et al.
	159	2013/0243910	A1	09/19/2013	Krueger et al.
	160	2013/0312619	A1	11/28/2013	Spiegel et al.
	161	2013/0327223	A1	12/12/2013	Bartoli et al.
	162	2014/0001563	A1	01/03/2014	Krueger et al.
	163	2014/0004231	A1	01/02/2014	Norton et al.
	164	2014/0017359	A1	01/16/2014	Krueger et al.
	165	2014/0046126	A1	02/13/2014	Gilligan et al.
	166	2014/0127364	A1	05/08/2014	Fu et al.
	167	2014/0141128	A1	05/22/2014	Trombetta et al.
	168	2014/0141129	A1	05/22/2014	Greene
	169	2014/0161936	A1	06/12/2014	Trombetta et al.
	170	2014/0178538	A1	06/26/2014	Husband et al.
	171	2014/0196608	A1	07/17/2014	Amrein et al.
	172	2014/0220191	A1	08/07/2014	Kelly et al.
	173	2014/0224130	A1	08/14/2014	Castellani et al.
	174	2014/0230370	A1	08/21/2014	Bianchi
	175	2014/0263033	A1	09/18/2014	Fu et al.
	176	2014/0272018	A1	09/18/2014	Koller et al.
	177	2014/0287104	A1	09/25/2014	Austin et al.
	178	2014/0287105	A1	09/25/2014	Husband et al.
	179	2014/0302204	A1	10/09/2014	Evers et al.
	180	2014/0346022	A1	11/27/2014	Keller et al.
	181	2014/0348984	A1	11/27/2014	Zeller et al.
	182	2014/0370181	A1	12/18/2014	Young et al.
	183	2015/0010680	A9	01/08/2015	Mahlich
	184	2015/0020481	A1	01/22/2015	Hodler
	185	2015/0029702	A1	01/29/2015	Foley
	186	2015/0056331	A1	02/26/2015	Rivera
	187	2015/0056340	A1	02/26/2015	Trombetta et al.

	188	2015/0056351	A1	02/26/2015	Deuber
	189	2015/0079241	A1	03/19/2015	Mahlich
	190	2015/0119220	A1	04/30/2015	Rea et al.
	191	2015/0128525	A1	05/14/2015	Bartoli et al.
	192	2015/0132441	A1	05/14/2015	Accursi
	193	2015/0157164	A1	06/11/2015	Digiuni
	194	2015/0158665	A1	06/11/2015	Krueger et al.
	195	2015/0158666	A1	06/11/2015	Krüger et al.
	196	2015/0166204	A1	06/18/2015	Rea et al.
	197	2015/0173558	A1	06/25/2015	Cross et al.
	198	2015/0175347	A1	06/25/2015	Empl
	199	2015/0201790	A1	07/23/2015	Smith et al.
	200	2015/0239652	A1	08/27/2015	Trombetta et al.
	201	2015/0246741	A1	09/03/2015	Hansen et al.
	202	2015/0274411	A1	10/01/2015	Krueger
	203	2015/0297021	A1	10/22/2015	Bugnano et al.
	204	2015/0297023	A1	10/22/2015	Hansen et al.
	205	2015/0314954	A1	11/05/2015	Empl
	206	2015/0329282	A1	11/19/2015	Bartoli et al.
	207	2015/0353275	A1	12/10/2015	Accursi
	208	2015/0375926	A1	12/31/2015	Fischer
	209	2016/0001968	A1	01/07/2016	Krüger et al.
	210	2016/0037961	A1	02/11/2016	Digiuni
	211	2016/0045060	A1	02/18/2016	Flick
	212	2016/0058234	A1	03/03/2016	Eppler et al.
	213	2016/0066591	A1	03/10/2016	Halliday et al.
	214	2016/0075506	A1	03/17/2016	Chapman et al.
	215	2016/0194146	A1	07/07/2016	Schelch et al.
	216	2016/0207696	A9	07/21/2016	Trombetta et al.
	217	2016/0242594	A1	08/25/2016	Empl et al.
	218	2016/0251150	A1	09/01/2016	Macchi et al.
	219	2016/0325921	A1	11/10/2016	Empl
	220	2016/0332759	A1	11/17/2016	Trombetta et al.
	221	2016/0340110	A1	11/24/2016	Trombetta et al.
	222	2017/0020329	A1	01/26/2017	Douglas et al.
	223	2017/0027374	A1	02/02/2017	Smith et al.
	224	2019/0359418	A1	11/28/2019	Kruger
	225	2021/0086986	A1	05/25/2021	Krüger
	226	2021/0269232	A1	09/02/2021	Krüger

FOREIGN PATENT DOCUMENTS

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	TBA
	Examiner Name	TBA
	Attorney Docket Number	1859.029USC12

Examiner Initial*	Cite No.	Foreign Document Number	Country Code	Kind Code	Publication Date	Name of Patentee or Applicant of cited Document	T[5]
	1.	2327021 (also published as US 6,440,256)	CA	C	01/04/2005	Helmbrecht et al.	
	2.	2399283 (also published as US 6,589,577)	CA	C	05/01/2007	Lazaris et al.	
	3.	2399290 (also published as US 6,607,762)	CA	C	01/10/2006	Lazaris et al.	
	4.	2400033 (also published as US6645537)	CA	C	02/08/2005	Beaulieu et al.	
	5.	2436389 (also published as US 6,861,086)	CA	A1	08/22/2002	Buckingham et al.	
	6.	2531544 (also published as US 7,946,217)	CA	C	05/01/2012	Favre et al.	
	7.	2538256 (also published as US2005/0051478)	CA	C	08/02/2011	Karanikos et al.	
	8.	2661921 (also published as US 8,512,886)	CA	A1	03/06/2008	Ozanne	
	9.	2662069 (also published as US 8,039,029)	CA	C	01/08/2013	Ozanne	
	10.	2662071 (also published as US 8,491,948)	CA	C	07/05/2011	Ozanne et al.	
	11.	2763746 (also published as US 8,114,461)	CA	A1	03/11/2010	Perlman et al.	
	12.	2784752 (also published as US 9,204,751)	CA	C	06/23/2011	Peterson	
	13.	2785843 (also published as US 2013/0156897)	CA	A1	02/10/2013	Goldstein	

IPR2024-00239
Nespresso USA, Inc. Ex. 1002
Page 154 of 598

	14.	2788283 (also published as US 9,428,328)	CA	A1	03/01/2013	Trombetta et al.	
	15.	2810237 (also published as US 8,361,527)	CA	A1	03/08/2012	Winkler et al.	
	16.	2832794 (also published as US 2014/0127364)	CA	C	03/22/2016	Fu et al.	
	17.	2833096 (also published as US 2014/0141128)	CA	C	05/31/2016	Fu et al.	
	18.	2866119 (also published as US 2015/0020481	CA	A1	09/19/2013	Hodler	
	19.	2872667 (also published as US 2015/0157164)	CA	A1	11/21/2013	Digiuni et al.	
	20.	2874025 (also published as US 2015/0119220)	CA	A1	12/27/2013	Rea et al.	
	21.	2877090 (also published as US 9,409,704)	CA	A1	01/09/2014	Digiuni et al.	
	22.	2886299 (also published as US 9,969,564)	CA	A1	04/03/2014	Krüger	
	23.	2888658 (also published as US 2014/0161936)	CA	C	06/12/2014	FU et al.	
	24.	2898173 (also published as US 2015/0353275)	CA	A1	08/07/2014	Accursi	
	25.	2901582 (also published as US 2016/0075506)	CA	A1	11/20/2014	Chapman et al.	
	26.	2902231	CA	A1	08/28/2014	Trombetta et al.	
	27.	101646613 (also published as US 2001/0181005)	CN	A	02/10/2010	Kirschner et al.	
	28.	102741136 (also published as US 2011/0064852)	CN	A	10/17/2012	Torsten	

	29.	104334473 (also published as US 2015/0132441)	CN	A	02/04/2015	Accursi	
	30.	1207866	DE	B	12/23/1965	Bentz	X
	31.	1221960	DE	B	07/28/1966	Bentz &Sohn Melitta	X
	32.	3432339	DE	A1	03/13/1986	Gesen et al.	X
	33.	19910226 (also published as US 6,527,181)	DE	A1	09/21/2000	Kleeberg et al.	
	34.	60115221 (also published as US2004/0115310)	DE	T2	07/20/2006	Yoakim	
	35.	69615001 (also published as US 5,948,455)	DE	T2	03/21/2002	Yoakim et al.	
	36.	102006004329	DE	A1	08/09/2007	Martinez et al.	X
	37.	102010027485	DE	A1	01/19/2012	Krueger	X
	38.	102010034206	DE	A1	02/16/2012	Eppler	X
	39.	102011010534	DE	A1	08/09/2012	Krüger et al.	
	40.	102011115833 (also published as US 9,409,703)	DE	A1	04/18/2013	Krüger et al.	
	41.	102012110446	DE	A1	01/02/2014	Krüger et al.	X
	42.	102014018470	DE	A1	06/16/2016	Heimann et al.	X
	43.	202006003115	DE	U1	05/11/2006	Unknown	X
	44.	202009014945 (also published as US 9,072,402)	DE	U1	09/23/2010	Ryser	
	45.	202010007919 (also published as US 2013/0209619)	DE	U1	11/11/2010	Mahlich	
	46.	0224297 (also published as US 4,860,645)	EP	A1	06/03/1987	Van Der Lijn	
	47.	0242556 (also published as US 4,846,052)	EP	A1	10/28/1987	Favre	
	48.	0244339 (also published as US 4,676,482)	EP	A1	11/04/1987	Reece et al.	
	49.	0272432	EP	A1	06/29/1988	Illy	
	50.	0272922	EP	A2	06/29/1988	Bentley et al.	

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Nespresso USA, Inc. Ex. 1002
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
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	Examiner Name	TBA
	Attorney Docket Number	1859.029USC12

	51.	0334572	EP	A1	09/27/1989	Bentley et al.	
	52.	0455337	EP	A1	11/06/1991	Bentley et al.	
	53.	0468078 (also published as US 5,242,702)	EP	A1	01/29/1992	Fond	
	54.	0468079	EP	A1	01/29/1992	Fond	
	55.	0512468	EP	A1	11/11/1992	Fond	
	56.	0569230	EP	A1	11/10/1993	Freeburne et al.	
	57.	0638486	EP	B1	10/23/1996	Gibbs et al.	
	58.	0656224 (also published as US 5,601,716)	EP	A1	06/07/1995	Heinrich et al.	
	59.	0844195	EP	A1	05/27/1998	Koch et al.	X
	60.	0859467 (also published as US 5,917,165)	EP	A1	08/19/1998	Platt et al.	
	61.	0923865 (also published as US 6,451,332)	EP	A2	06/23/1999	Tanaka et al.	
	62.	1129623	EP	A1	09/05/2001	Diaz	
	63.	1221418 (also published as US 2002/0088807)	EP	A1	07/10/2002	Perkovic et al	
	64.	1273528	EP	A1	01/08/2003	Yoakim et al.	X
	65.	1344722 (also published as US 7,543,527)	EP	A1	09/17/2003	Schifferle	
	66.	1344724	EP	A1	09/17/2003	Hale	
	67.	1363501 (also published as US 2002/0110626)	EP	A2	11/26/2003	Buckingham	
	68.	1471012	EP	A2	10/27/2004	Tuens	
	69.	1555219 (also published as US 7,552,672)	EP	A1	07/20/2005	Schifferle	
	70.	1559351 (also published as US 2005/0160919)	EP	A2	08/03/2005	Balkau	
	71.	1586534 (also published as US 2008/0148948)	EP	A1	10/19/2005	Evers et al.	
	72.	1710173	EP	A1	10/11/2006	Ternite et al.	

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Nespresso USA, Inc. Ex. 1002
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	TBA
	Examiner Name	TBA
	Attorney Docket Number	1859.029USC12

		(also published as US 2006/0236871)					
	73.	1722398 (also published as US 8,101,928)	EP	A1	11/15/2006	Downer et al.	
	74.	1772398	EP	A1	04/11/2007	Van Belleghem	
	75.	1792850 (also published as US 2007/0148290)	EP	B1	06/06/2007	Ternite et al.	
	76.	1796516 (also published as US 8,109,200)	EP	A2	06/20/2007	Hansen	
	77.	1849718	EP	A1	10/31/2007	Rubino	
	78.	1859713	EP	A1	11/28/2007	Boussemart	
	79.	1882431 (also published as US 8,088,423)	EP	B1	04/28/2010	Ohresser et al.	
	80.	1882432 (also published as US 2009/0324791)	EP	B1	01/30/2008	Ohresser et al	
	81.	1882432	EP	A1	01/30/2008	Ohresser et al.	
	82.	1892199	EP	A1	02/27/2008	Ternite	X
	83.	1974638 (also published as US 2008/0024536)	EP	A1	10/01/2008	Ternite et al.	
	84.	2012994	EP	B1	07/11/2012	Abegglen et al.	
	85.	2158829 (also published as US 2010/0050880)	EP	A1	03/03/2010	Suter et al.	
	86.	2218653	EP	A1	08/18/2010	Wons UWE	X
	87.	2230195 (also published as US 8,734,881)	EP	A1	09/22/2010	Yoakim et al.	
	88.	2239211 (also published as US 8,257,766)	EP	A1	10/13/2010	Yoakim et al.	
	89.	2284102	EP	A1	02/16/2011	Schulte et al.	
	90.	2287090 (also published as US 2011/0041702)	EP	A1	02/23/2011	Yoakim	
	91.	2364930 (also published as US 8,956,672)	EP	A2	09/14/2011	Yoakim et al.	

IPR2024-00239
Nespresso USA, Inc. Ex. 1002
Page 158 of 598

	92.	2384133 (also published as US 2011/0250333)	EP	B1	11/09/2011	Ozanne	
	93.	2384199 (also published as US2010/0172951)	EP	A1	11/09/2011	Wasielewski	
	94.	2412645	EP	A1	02/01/2012	Hiridjee	X
	95.	2444339 (also published as US 2013/0216663)	EP	A1	04/25/2012	Dogan, et al.	
	96.	2484505 (also published as US 2012/0195155)	EP	A2	08/08/2012	Gennai et al.	
	97.	2537778	EP	A1	12/26/2012	Pineschi	
	98.	2559636 (also published as US 9,434,525)	EP	A1	02/20/2013	Fabozzi	
	99.	2569230 (also published as US2013/0064937)	EP	B1	07/13/2016	Abegglen et al.	
	100.	2595902 (also published as US 2021/0086986)	EP	A1	05/29/2013	Krüger	
	101.	2809006 (also published as US 2014/0346022)	EP	A1	12/03/2014	Keller et al.	
	102.	2957525 (also published as US 2019/0359418)	EP	A1	12/23/2015	Kruger	
	103.	3023361 (also published as US2021/0269232)	EP	A1	05/25/2016	Krüger	
	104.	569230 (also published as US 5,194,553)	EP	A1	11/10/1993	Freeburne et al.	
	105.	2556323	FR	A1	06/14/1985	Munier Rene	
	106.	2912124	FR	A1	08/08/2008	Blanc et al.	
	107.	2963332 (also published as US 2013/0122153)	FR	A1	02/03/2012	Ferrier et al.	
	108.	1402799	GB	A	08/13/1975	Battelle Memorial Institute	
	109.	2469874	GB	A	11/03/2010	Hansen et al.	

	110.	2482032 (also published as US 9,357,791)	GB	A	01/18/2012	Fountain et al.	
	111.	02289207	JP	A	11/29/1990	Ozasa et al.	abs.
	112.	2001-017094	JP	A	01/23/2001	Toshiyuki et al.	X
	113.	2001-082699	JP	A	03/30/2001	Suzuki et al	
	114.	2001-250161	JP	A	09/14/2001	Takayuki et al.	X
	115.	2002-274000	JP	A	09/25/2002	DAINIPPON PRINTING CO LTD	
	116.	2002-347852	JP	A	12/04/2002	SHOWA DENKO PLASTIC PROD CO	
	117.	2003-235733	JP	A	08/26/2003	Mitsuaki	X
	118.	2003-265320 (also published as US 2003/0172813)	JP	A	09/24/2003	Schifferle	
	119.	2003-522567 (also published as US 2003/0033938)	JP	A	07/29/2003	Halliday et al.	
	120.	2004-097015	JP	A	04/02/2004	Matsuura	X
	121.	2004-533305 (also published as US 2004/0115310)	JP	A	11/04/2004	Unknown	
	122.	2005-199070 (also published as US 2005/0150391)	JP	A	07/28/2005	Schifferle	
	123.	2006-510682 (also published as US 7,408,094)	JP	A	03/30/2006	Little et al.	
	124.	2007-522856 (also published as US 7,673,558)	JP	A	08/16/2007	Panesar et al.	
	125.	2010-500199 (also published as US 2010/0000667)	JP	A	01/07/2010	Funnell	
	126.	2010-507418 (also published as US 2010/0051532)	JP	A	03/11/2010	Wawrla et al.	
	127.	2010-516364 (also published as US 2013/0206011)	JP	A	05/20/2010	Ozanne et al.	
	128.	2010-528635	JP	A	08/26/2010	Yoakim et al.	

IPR2024-00239
Nespresso USA, Inc. Ex. 1002
Page 160 of 598

		(also published as US 9,277,837)					
	129.	2013-538609 (also published as US 9,049,958)	JP	A	10/17/2013	Fischer	
	130.	2015-085086	JP	A	05/07/2015	Hirota et al.	X
	131.	H01-233688	JP	A	09/19/1989	TOKYU CAR CORP	
	132.	H0394377	JP	A	04/19/1991	Toshiaki	
	133.	H04176311	JP	A	06/24/1992	Moji et al.	X
	134.	H06510682 (also published as US 5,460,078)	JP	A	12/01/1994	Weller	
	135.	S62-130649	JP	A	06/12/1987	Shiengu et al.	X
	136.	S62-168512	JP	A	07/24/1987	Yoosuto et al.	
	137.	200435370	KR	Y1	01/18/2007	Unknown	
	138.	1020050107747	KR	A	11/15/2005	Halliday et al.	
	139.	596919 (also published as US 2010/0303964)	NZ	A	11/29/2013	Beaulieu et al.	
	140.	01/99047 (also published as US 2003/0121979)	WO	A	12/27/2001	Haens et al.	
	141.	02/078498 (also published as US 2004/0089158)	WO	A1	10/10/2002	Mahlich	
	142.	02/28241	WO	A	04/11/2002	Boyd	
	143.	2004/065258	WO	A2	08/05/2004	Gomez et al.	
	144.	2004/071899 (also published as US 2005/0266122)	WO	A1	08/26/2004	Franceschi	
	145.	2004/082390 (also published as US 2006/0228447)	WO	A1	09/30/2004	Ganesan et al.	
	146.	2005/044067	WO	A1	05/19/2005	Ruchonnet	
	147.	2005/047111	WO	A1	05/26/2005	Rapparini	
	148.	2005/079638 (also published as US 2007/0157821)	WO	A1	09/01/2005	Panesar	
	149.	2006/108578	WO	A1	10/19/2006	Leloup et al.	
	150.	2006/121520 (also published as US 2005/0183581)	WO	A2	11/16/2006	Kirschner et al.	

IPR2024-00239
Nespresso USA, Inc. Ex. 1002
Page 161 of 598

	151.	2007/042414 (also published as US 7,981,451)	WO	A1	04/19/2007	Ozanne	
	152.	2007/042486	WO	A2	04/19/2007	Van Belleghem	
	153.	2007/114685	WO	A1	10/11/2007	Verbeek	
	154.	2007/122144	WO	A1	11/01/2007	Blanc et al.	X
	155.	2007/122208	WO	A1	11/01/2007	Abegglen et al.	
	156.	2008/011913 (also published as US 2008/0026121)	WO	A1	01/31/2008	Mastropasqua et al.	
	157.	2008/090122 (also published as US 2013/0209620)	WO	A2	07/31/2008	Ozanne et al.	
	158.	2008/107645 (also published as US2010/0196545)	WO	A2	09/12/2008	Buffet et al.	
	159.	2008/121489 (also published as US 8,505,440)	WO	A1	10/09/2008	Kirschner et al.	
	160.	2008/126045 (also published as US 2010/0108541)	WO	A1	10/23/2008	Degli	
	161.	2008/132571	WO	A1	11/06/2008	Pineschi	
	162.	2009/084061	WO	A1	07/09/2009	Nani	
	163.	2009/112291	WO	A1	09/17/2009	Eichler et al.	
	164.	2009/114119 (also published as US 2010/0028495)	WO	A1	09/17/2009	Novak et al.	
	165.	2009/115475 (also published as US 2011/0005399)	WO	A1	09/24/2009	Epars et al.	
	166.	2009/130311 (also published as US 2011/0189350)	WO	A1	10/29/2009	Van Belleghem et al.	
	167.	2009/153161	WO	A1	12/23/2009	Ofenhitzer et al.	X
	168.	2010/007633	WO	A1	01/21/2010	Quadrelli	
	169.	2010/013146	WO	A3	04/29/2010`	Cometto	
	170.	2010/026053	WO	A1	03/11/2010	Denisart et al.	
	171.	2010/041179 (also published as US 2011/212225)	WO	A2	04/15/2010	Mariller	
	172.	2010/076048	WO	A1	07/08/2010	Campiche	
	173.	2010/076263	WO	A1	07/08/2010	Ozanne	

IPR2024-00239
Nespresso USA, Inc. Ex. 1002
Page 162 of 598

	174.	2010/076761	WO	A1	07/08/2010	Giua et al.	
	175.	2010/085824	WO	A1	08/05/2010	Eder et al.	
	176.	2010/118545	WO	A2	10/21/2010	Deuber	X
	177.	2010/125326	WO	A1	11/04/2010	Hansen et al.	
	178.	2010/125329	WO	A1	11/04/2010	Hansen et al.	
	179.	2010/137952 (also published as US 2012/0121765)	WO	A1	12/02/2010	Kamerbeek et al.	
	180.	2010/137960 (also published as US 9,359,126)	WO	A1	12/02/2010	Wong et al.	
	181.	2010/138563 (also published as US 2013/0101716)	WO	A1	11/29/2010	Beaulieu et al.	
	182.	2011/000723 (also published as US 2012/0100264)	WO	A2	01/06/2011	Bucher et al.	
	183.	2011/012501 (also published as US 2012/0126834)	WO	A1	02/03/2011	Kleinhans	
	184.	2011/047836	WO	A1	04/28/2011	Rapparini	
	185.	2011/141532	WO	A1	11/17/2011	Jarisch et al.	
	186.	2011/147491 (also published as US 2013/0084376)	WO	A1	12/01/2011	Fischer et al.	
	187.	2011/147553 (also published as US 2013/0149424)	WO	A1	12/01/2011	Fischer	
	188.	2011/147591 (also published as US 2013/0084363)	WO	A1	12/01/2011	Krueger et al.	
	189.	2012/000878 (also published as US 9,392,902)	WO	A2	01/05/2015	Parentes et al.	
	190.	2012/007257 (also published as US 9,290,317)	WO	A1	01/19/2012	Quinn et al.	
	191.	2012/009668 (also published as US 2013/0209622)	WO	A1	01/19/2012	Fountain et al.	
	192.	2012/019902	WO	A1	02/16/2012	Favero et al.	

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Nespresso USA, Inc. Ex. 1002
Page 163 of 598

		(also published as US 9,808,112)					
	193.	2012/038063 (also published as US 8,916,220)	WO	A1	03/29/2012	Mahlich	
	194.	2012/057257	WO	A1	05/03/2012	Fujiki et al.	
	195.	2012/080928 (also published as US 2013/0327223)	WO	A1	06/21/2012	Bartoli et al.	
	196.	2012/100977 (also published as US 9,415,931)	WO	A1	08/02/2012	Gerbaulet et al.	
	197.	2012/104760	WO	A1	08/09/2012	Bartoli et al.	
	198.	2012/135204 (also published as US 2014/0348984)	WO	A1	10/04/2012	Zeller et al.	
	199.	2012/175985 (also published as US 2014/0287104)	WO	A1	12/27/2012	Peter et al.	
	200.	2013/008012 (also published as US 2014/0220191)	WO	A2	01/17/2013	Kelly et al.	
	201.	2013/032330 (also published as US 2014/0178538)	WO	A1	03/07/2013	Husband et al.	
	202.	2013/043048 (also published as US 2014/0287105)	WO	A1	03/28/2013	Husband et al.	
	203.	2013/136209 (also published as US 2016/0037961)	WO	A1	09/19/2013	Digiuni	
	204.	2013/171663 (also published as US 2015/0128525)	WO	A1	11/21/2013	Bartoli et al.	
	205.	2013/189923 (also published as US 2015/0175347)	WO	A1	12/27/2013	Empl	
	206.	2014/001563 (also published as US 2015/0158666)	WO	A1	01/03/2014	Krueger et al.	
	207.	2014/001564	WO	A1	01/03/2014	Krueger et al.	

		(also published as US 2015/0158665)					
	208.	2014/004231	WO	A1	01/03/2014	Buscemi et al.	
	209.	2014/004564	WO	A1	01/03/2014	Bachar et al.	
	210.	2014/006048 (also published as US 2015/0173558)	WO	A2	01/09/2014	Cross et al.	
	211.	2014/090567 (also published as US 20150314954)	WO	A1	06/19/2014	Empl	
	212.	2014/102702 (also published as US 2015/0329282)	WO	A1	07/03/2014	Bartoli et al	
	213.	2014/127863 (also published as US 2015/0375926)	WO	A1	08/28/2014	Fischer	
	214.	2015/028425 (also published as US 2016/0194146)	WO	A2	03/05/2015	Schelch et al.	
	215.	2015/062703 (also published as US 2016/0251150)	WO	A1	05/07/2015	Macchi et al.	
	216.	2015/075584	WO	A1	05/28/2015	Accursi	
	217.	2015/107484	WO	A1	07/23/2015	Rivola et al.	
	218.	2016/077916	WO	A1	05/26/2016	Hanneson et al.	
	219.	94/01344 (also published as US 6,025,000)	WO	A1	01/20/1994	Fond et al.	
	220.	98/51396	WO	A1	11/19/1998	Timmermann et al.	X
	221.	99/03753	WO	A1	01/28/1999	Yoakim et al.	
	222.	99/58035 (also published as US 5,895,672)	WO	A1	11/18/1999	Cooper	

NON-PATENT LITERATURE DOCUMENTS

Examiner Initial*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1.	Rawle, Alan, "Particle Sizing – An Introduction" 2012; Silver Colloids, Edition or volume on Colloidal Silver.	
	2.	Decision on Appeal before the Patent Trial and Appeal Board for Appeal No. 2017-007984 dated May 10, 2019.	

	3.	Notice of Opposition regarding EP3023362 filed July 30, 2018.	
	4.	Search Report for CN201180035944 mailed September 25, 2014.	
	5.	First Office Action for Application No. CN201180035944 mailed October 10, 2014.	
	6.	Second Office Action for Application No. CN201180035944 mailed April 21, 2015.	
	7.	Third Office Action for Application No. CN201180035944 mailed November 12, 2015.	
	8.	Notification to Grant Patent for Application No. CN201180035944 mailed May 25, 2016.	
	9.	Search Report for CN201610644043 mailed May 11, 2018	
	10.	First Office Action for CN201610644043 mailed May 28, 2018	
	11.	Search Report and Written Opinion for PCT/EP2011/003677 mailed July 22, 2011.	
	12.	Search Report and Written Opinion for Application No. EP 15174333.3 dated November 3, 2015. (EP2952453)	
	13.	Office Action for Application No. EP 15174333.3 dated August 16, 2016. (EP2952453)	
	14.	Search Report and Written Opinion for Application No. EP 15173071.0 dated November 5, 2015. (EP2957525)	
	15.	Office Action for Application No. EP 15173071.0 dated November 5, 2015. (EP2957525)	
	16.	Third party observation for Application No. EP2957525 dated September 30, 2016.	
	17.	Search Report and Written Opinion for Application No. EP 15197332.8 dated April 12, 2016. (EP3023361)	
	18.	First Office Action for Application No. EP 15197332.8 dated January 19, 2017. (EP3023361)	
	19.	Second Office Action for Application No. EP 15197332.8 dated May 24, 2017. (EP3023361)	
	20.	Third Office Action for Application No. EP 15197332.8 dated November 2, 2017. (EP3023361)	
	21.	Search Report and Written Opinion for Application No. EP 15197336.9 dated April 4, 2016 (EP3023362)	
	22.	Search Report and Written Opinion for Application No. EP 15197338.5 dated April 7, 2016 (EP3023363)	
	23.	Search Report for Application No. JP 2013-520009 dated November 25, 2014. (JP5946828)	
	24.	First Office Action for Application No. JP 2013-520009 dated December 10, 2014. (JP5946828)	
	25.	Second Office Action for Application No. JP 2013-520009 dated August 19, 2015. (JP5946828)	

	26.	Decision to Grant for Application No. JP 2013-520009 dated April 28, 2016. (JP5946828)	
	27.	Search Report for Application No. JP 2016-032427 dated November 21, 2016. (JP2016163691)	
	28.	First Office Action for Application No. JP 2016-032427 dated November 28, 2016. (JP2016163691)	
	29.	Second Office Action for Application No. JP 2016-032427 dated June 20, 2017. (JP2016163691)	
	30.	Search Report for Application No. JP 2017-034769 dated November 15, 2017. (JP2017148511)	
	31.	Office Action for Application No. JP 2017-034769 dated January 30, 2018. (JP2017148511)	
	32.	Office Action for Application No. KR 10-2013-7004356 dated April 5, 2018. (KR20137004356)	
	33.	Office Action for Application No. 10-2017-7019956 dated April 10, 2018. (KR20170087528)	
	34.	Opposition Request against European Patent No. EP 3 023 362 dated July 01, 2019.	
	35.	Notice of Opposition for Application No. 19165223.9 dated February 24, 2020.	
	36.	Notice of Opposition for European Patent No. EP3521208 granted February 19, 2020.	
	37.	Opposition against European Patent No. EP3521208; Application No. 19165223.9 granted February 19, 2020.	
	38.	Communication of Notice of Opposition dated January 27, 2020 for Application No. 19165219.7	
	39.	English Translation of JP2003235733	
	40.	Wikipedia definition of "Deep Drawing" http://en.wikipedia.org/wiki/Deep_Drawing	
	41.	Wikipedia definition of "Tiefziehen" http://de.wikipedia.org/wiki/Tiefziehen	
	42.	Wikipedia definition of "Stamping (metalworking)" https://en.wikipedia.org/wiki/Stamping_(metalworking)	
	43.	Wikipedia definition of "Barcode"	
	44.	Regulation (EC) No 1935/2004 of the European Parliament and of the Council of 27 October 2004" Official of the European Union	
	45.	Brief Communication for Opposition Proceedings for Appl. 15197336.9, dated March 19, 2020	
	46.	Oral Letter regarding the opposition Procedure dated March 16, 2020 for EP 3023362	
	47.	Opposition oral letter regarding the opposition procedure dated March 16, 2020, for EP 023362	
	48.	Annex to the Communication Opposition Appln No. 15197336.9; 2020	

	49.	Brief Communication-Opposition Proceedings for Appl. No. 15197336.9 dated January 8, 2020	
	50.	Letter regarding Opposition Procedure for EP Patent No. 3023362 dated December 23, 2019	
	51.	Brief Communication for Appl No 15197336.9 dated October 15, 2019	
	52.	"Information technology – Automatic identification and data capture techniques – EAN/UPC bar code symbol specification" Second Edition: December 15, 2009	
	53.	Letter accompanying subsequently filed items for EP3023362, KRO-44; October 10, 2019.	
	54.	Brief Communication – Opposition Proceedings for Appl No. 15197336.9 dated July 23, 2019	
	55.	Letter accompanying subsequently filed items for EP3023362 1038-CMS-O; July 17, 2019	
	56.	Brief Communication – Opposition proceedings for Appln No. 15197336.9 dated July 12, 2019	
	57.	Opposition Procedure for EP Patent No. EP 3023362 dated July 1, 2019	
	58.	Miscellaneous requests concerning client data EPO – June 12, 2019	
	59.	Letter regarding the Opposition Procedure KRO-44/FWJPL dated March 20, 2019	
	60.	Ralf Jesse, "Barcode" Gutachten zur Frage Begriffle, Bitcode/Binacode; Patents EP 3023362; May 19, 2019	
	61.	"Information technology – Automatic identification and data capture techniques – Bar code verifier conformance specification – Part 1: Linear symbols" May 20, 2019 10:12	
	62.	"Information technology – Automatic identification and data capture techniques – Bar code print quality test Spec Linear Symbols" German Version: EN ISO/IEC 15416:2001: 1998-02	
	63.	Declaration under 27 C.F.R. for Appl No. 13/697,297; August 15, 2016	
	64.	Wikipedia "Binarcode" https://de.wikipedia.org/wiki/Binarcode	
	65.	Rosenbaum, Jessie, "Bar-Code" Theorie Lexikon Software; 2000	
	66.	Potter Mathia, "BARCODE" Euinfuhrung und Andwendungen; 1993	
	67.	Oliver Rosenbaum "Das Barcode-Lexicon" edition advanced: cbhv; 1997	
	68.	Fairley Michael "Codes and Coding Technology" LCGS, FIP3 and FLOM3: A Labels & Labeling Publication 2015	
	69.	Claims – Amended Claims with annotations-2	
	70.	Claims – 2019-05-20 Amended Claims with Annotations	
	71.	Auxiliary request during Opposition procedure – 2019-05-20	
	72.	Letter regarding opposition procedure for EP 3023362 dated March 4, 2019	
	73.	Definition of Barcode by Merriam-Webster https://www.merriam-webster.com/dictionary/barcode	

	74.	Barcode-Wikitionary "Barcode" https://de.wikitionary.org/wiki/Barcode 2018	
	75.	Strichcode – Wikipedia "Strichcode" https://de.wikiepdia.org/wiki/strichcode	
	76.	Reply of the patent proprietor to the notice of opposition 2019-02-11; Appln No. 151973366.9	
	77.	Notice of Opposition against European Patent No. EP 3023362 dated July 30, 2018	
	78.	Notice of Opposition to a European patent, Patent No. EP3023362 dated July 24, 2018.	
	79.	Specification NP-C2.03-02-SP-04-2 Membrane	
	80.	Specification NP-C2.03-01-SP-01-4 empty capsule	
	81.	Marketing brochure "Nespresso Varietäten mit 5 neuen Grand Crus"	
	82.	Photo taken in Nespresso store	
	83.	Marketing brochure "i6 Grands Crus – geschaffen um Ihre Sinne zu ilberraschen "	
	84.	RTS online article	
	85.	Invoice for various Nespresso capsules, dated May 04, 2009	
	86.	Invoice for various Nespresso capsules, dated August 10, 2009	
	87.	Invoice for various Nespresso capsules, dated December 02, 2009	
	88.	Invoice for various Nespresso capsules, dated May 18, 2009	
	89.	Invoice for various Nespresso capsules, dated October 21, 2008	
	90.	Invoice for various Nespresso capsules, dated June 24, 2009	
	91.	Invoice for various Nespresso capsules, dated May 19, 2008	
	92.	Invoice for various Nespresso capsules, dated September 10, 2008	
	93.	Invoice for various Nespresso capsules, dated February 17, 2009	
	94.	Invoice for various Nespresso capsules, dated December 22, 2008.	
	95.	User manual for the Tassimo@ brewing machine	
	96.	Web article discussing the T-discs@ cartridges	
	97.	Regulation No. 817.023.21 of the EDI on consumer goods	
	98.	Regulation No.8 17.022.3 1of the EDI on the additives permitted in foodstuffs	
	99.	Regulation of the Swiss Federal Council on Foodstuffs and Consumer Goods	
	100.	"European Printing Ink Association " Guideline on Printing Inks	
	101.	leaflet on printing inks for food packages from the division "Printing Inks" of the Association of the German Paint and Printing Ink Industry	
	102.	EuPIA Exclusion List for Printing Inks and Related Products	
	103.	EuPIA Guideline on Good Manufacturing Practices for the Production of Packaging Inks formulated for use on the non-food	

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		contact surfaces of food packaging and articles intended to come into contact with food	
	104.	Commission Regulation (EC) No 2023/2006	
	105.	Council Directive 89/109/EEC relating to materials and articles intended to come into contact with foodstuffs	
	106.	Policy Statement on Packaging Inks applied to the non-food contact surface of Food Packaging of the public health committee of the council of Europe	
	107.	Nestle Guidance Note on Packaging Inks	
	108.	Council Directive on the colouring matters authorised for use in foodstuffs intended for human consumption	
	109.	Council Directive 89/107/EEC on the approximation of the laws of the Member States concerning food additives authorized for use in foodstuffs intended for human consumption	
	110.	European Parliament and Council Directive 94/36/EC on colours for use in foodstuffs	
	111.	Excerpt from the textbook "Plastics Packaging – Properties, Processing, Applications and Regulations" by Selke/Culter/Hernandez	
	112.	"Lexikon Verpackungstechnik" by Bleisch/Goldhahn/Schricker/Vogt;	
	113.	Paper titled "Aromaveranderung von vakuumverpacktem Kaffee bei unterschiedlichen Packstoffen" by Lindner-Steinert/Zou	
	114.	Paper "Die flexible Verpackung von morgen – Anforderungen an die Veredler" by Agulla/Langowski	
	115.	Excerpt from publication "Grundziige der Lebensmitteltechnik" of 2004 by Tscheuschner	
	116.	Excerpt from publication "Produkt-bkobilanz vakuumverpackter Rostkaffee" of 1999 by Diers/Langowski/Pannkoke	
	117.	3rd Party Observations in EP Patent Application No. 19 165 220.5 (3 533 726), dated June 19, 2020.	
	118.	Opposition Against EP Patent No. EP 3 023 362 dated July 13, 2020.	
	119.	Letter dated September 30, 2020 from file of US Application No. 16/517,054 (by SOCIÉTÉ DES PRODUITS NESTLÉ S.A.)	
	120.	Supplemental arguments filed by Societe des Produits Nestle S.A. in the opposition against European Patent No. EP3521209, dated January 07, 2021.	
	121.	Suggestion for Declaration of Interference dated Sept. 30, 2019	
	122.	Petition for Inter Partes Review of U.S. Patent No. 10,870,531 (IPR2021-01223), dated July 12, 2021.	
	123.	Petition for Inter Partes Review of U.S. Patent No. 10,858,176 (IPR2021-01221), dated July 12, 2021.	

	124.	Petition for Inter Partes Review of U.S. Patent No. 10,858,177 (IPR2021-01222), dated July 12, 2021.	
	125.	Declaration of Michael Jobin, Exhibit 1003 from Petition for Inter Partes Review of U.S. Patent No. 10,858,177 (IPR2021-01222), dated July 12, 2021.	
	126.	Declaration of Michael Jobin, Exhibit 1003 from Petition for Inter Partes Review of U.S. Patent No. 10,858,176 (IPR2021-01221), dated July 12, 2021.	
	127.	Declaration of Michael Jobin, Exhibit 1003 from Petition for Inter Partes Review of U.S. Patent No. 10,870,531 (IPR2021-01223), dated July 12, 2021.	
	128.	Nespresso's Preliminary Invalidity Contentions from US District Court Central District of California Case No. 2:21-cv-3402 GW(ARGx), dated September 22, 2021.	
	129.	English Translation of JPH1-233688	
	130.	Submission Dated April 5, 2019, European Patent Number EP3023362	
	131.	Third party Observations EP3533726, dated August 26, 2021.	
	132.	Opposition against European Patent Number EP3521210; dated October 7, 2020	
	133.	Opposition against European Patent Number EP3521210; dated January 8, 2020.	
	134.	Submission for EP Patent No. 3023362, dated January 7, 2021, In response to the Provisional Opinion.	
	135.	Submission for European Patent Number EP3023362, dated March 26, 2021.	
	136.	Submission for European Patent Number EP3023362, dated March 26, 2021, In response to the Provisional Opinion	
	137.	Submission for European Patent No. EP3023362, dated April 27, 2021.	
	138.	Submission for European Patent No. EP3521207, dated March 15, 2021.	
	139.	Submission for European Patent Number EP3521207, dated October 21, 2020.	
	140.	Submission for European Patent Number EP3521208, dated March 12, 2021.	
	141.	Submission for European Patent Number EP3521208, dated October 29, 2020.	
	142.	Submission for European Patent Number EP3521209, dated January 7, 2021.	
	143.	Submission for European Patent Number EP3521209, dated October 21, 2020.	
	144.	Wikipedia definition of "Spritzgieben" https://de.wikipedia.org/wiki/Spritzgie%C3%9Fen	
	145.	Definition of "Werkstoff" https://www.dwds .de/wb/Werkstoff	
	146.	Definition of "Filter" https://www.dwds.de/wb/Filter	

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	147.	Convenience First: Espresso Pods and Capsules, January 2009. https://www.coffeereview.com/convenience-first- espresso-pods-and-capsules	
	148.	ESPRESSO EN CAPSULE, March 2021. https://www.swissinfo.ch/fre/le-march%C3%A9-du-caf%C3%A9-en-capsules-explose-et-inqui%C3%A8te/6421908	
	149.	Wiktionary definition of the expression "à base de" available online at: https://fr.wiktionary.org/wiki/%C3%A0_base_de:	
	150.	D130, the Robert definition of "base" available online at: https://dictionnaire.lerobert.com/definition/base	
	151.	Key Science Physics Matter and Energy Strength https://books.google.ch/books?id=uSPzV9R08nsC&pg =PA36%20&dq=%22corrugated +plastic%22+packaging&hl=fr&sa =X&ve%20d=2ah%20U%20KEwjvlrqZxaXv%20Ah% 20Vkx4sKHYIZAHk4PBDoAT %20AIegQIC%20RAC#v=onepage&q	
	152.	Key Science Chemistry, toughness and Brittleness https://books.google.ch/books?id=CK8OgULw4oMC&pg =PA 1 1 &dq=%22 *corrugated*+plastic%22 +packaging &h l=fr &sa=X& *ved=2ahUKEwj lrqZxaXvAhVkx4sKHYIZAHk4PBDoATAHegQ* ICBAC#v= onepage&q=%22corrugated%20plastic%22%20pa ckaging&f=false	
	153.	Reusable Transport Packaging 1973 https://books.google.ch/books?id=fitxOnnXD_wC&q=%22corr%20ugated+ plastic%22&dq=%22c%20orrugated+plastic%22&h%20l=fr%20&sa=X &%20ved =2ah%20U%20KEwj787n%20lvqX%20vAhUlq QKHfiDDOq4PBDoATAAegQIARAC	
	154.	Annex illustrating the handling of a double patenting issue	
	155.	Opposition Request against European Patent No. EP 2525692B1; dated July 29, 2015.	
	156.	Strategic Innovation 1999 https://books.google.ch/books?id=rTKHB-9YUbwC&pg=PA%2018&dq=coffee+capsules&hl=fr&sa=X&ved=%20 2ahUKEwjFgvDQhaXvAhWYA2MBHdhuDMsQ6AEwBXoEC%20A% 20YQAg#v=onepaQe&q=coffee%20capsules&f=false	
	157.	LE MARCHE DU CAFE EN CAPSULES EXPLOSE ET INQUIETE https://pages.rts.ch/emissions/abe/515911-espresso-encapsule-abe-a-souleve-lecouvercle.html	

	158.	KAFFEEPADS UNO -KAPSELN KONNEN ZUR KOSTENFALLE WERDEN https://www.t-online.de/leben/id_41150796/kaffeekaffeepads-und-kapseln-koennen-zurkostenfalle-werden.html	
	159.	LA DOSETTE DE CAFE: L'ENVIRONNEMENT BOIT LA TASSE https://www.consoglobe.com/dosette-cafe-environnement-boit-tasse-1957-cg	
	160.	PREPARATORY STUDIES FOR ECODESIGN https://www.eceee.org/static/media/uploads/site-2/ecodesign/products/lot25-non-tertiary_coffee-machines/final_report-task_1_.pdf	
	161.	ENERGIE-ENVIRONNEMENT.CH MACHINE A CAFÉ https://www.energie-environnement.ch/appareils-electromenagers/machine-a-cafe	
	162.	IS THERE A SERIOUS PROBLEM WITH COFFEE CAPSULES? https://www.bbc.com/news/magazine-35605927	
	163.	FRESHNESS INDICES OF ROASTED COFFEE https://www.researchgate.net/publication/262211090_Freshness_Indices_of_Roasted_Coffee_Monitoring_the_Loss_of_Freshness_for_Single_Serve_Capsules_and_Roasted_Whole_Beans_in_DifferentPackaging	
	164.	COMPARATIVE LIFE CYCLE ASSESSMENT https://uwspace.uwaterloo.ca/bitstream/handle/10012/12860/Li_Jinqxi.pdf?sequence=5&isAllowed=Y	
	165.	SCHNITT-, STANZ- UNO ZIEHWERKZEUGE https://books.google.ch/books?id=-qCnBgAAQBAJ&pg=PA386&dq=tiefziehen+aluminiumblech&hl=en&sa=X&ved=2ah U KEwj HybqNx6L v Ah U DwKQKHSNsAbEQ6AEwA XoECAgQAg#v=onepage&q=tiefziehen%20aluminiumblech&f=false	
	166.	THERMO-MECHANICAL PROCESSING OF METALLIC MATERIALS https://books.google.ch/books?id=VE20YVDTBZUC&pg=PA370&dq=%22deep+drawing%22+%22aluminium+sheet%22&hl=fr&sa=X&ved=2ah U KEwj3ouSI0qL v AhWQyqQKH RbqD?YQ6AEwBHoECAUQAg#v=onepage&q=%22deep%20drawing%22%20%22aluminium%20sheet%22&f=false	
	167.	PACKAGING: SPECIFICATIONS https://books.google.ch/books?id=N1 TLbP9CiDUC&pg=PA26	

		5&Ipg=PA265&dq=aluminum+can+barcode+print++varnish&source=bl&ots=rJuPKZptU3&sig=ACfU3U0KHflM3Wh2Gw0zEblq7DDXt5TQxQ&hl=en&sa=X&ved=2ahUKEwjW0NmK64LvAhVnCWMBHRIYCloQ6AEwEXoECA0QAw#v=onepage&q=aluminum%20can%20barcode%20print%20%20varnish&f=fAlse	
	168.	IMPROVING TRACEABILITY IN FOOD PROCESSING AND DISTRIBUTION https://books.google.ch/books?id=v75QAwAAQBAJ&gg=PA209&dg=barcode+ink+gackaging+food&hl=fr&sa=X&ved=2ahUKEwiQ2JjVvKjvAhUDIMUKHU3gDPYQ6AEwBHoECAYQAg#v=oneQage&g=barcode%20ink%20gackaging%20food&f=false	
	169.	FOOD PACKAGING https://books.google.ch/books?id=NFRR6GayR74C&pg=PA265&dq=welding+plastic+packaging+food&hl=fr&sa=X&ved=2ahUKEwiwhqff1 KPvAhWMl4sKHRXUDls4HhDoATACegQIBBAC#v=onepage&q=welding%20plastic%20packaging%20food&f=false	
	170.	COFFEE LOVE https://books.google.ch/books?id=0OxRp3jlQlsC&pg=PA 14&dq=coffee+capsu les& hl=fr &sa=X& ved=2ah U KEwj F0qvMk6XvAhWTBGMBHYddCp04ChDoATAlegQIAhAC#v=onepage&Q=coffee%20capsules&f=false	
	171.	STRUCTURAL DESIGN PROCEDURE https://books.google.ch/books?id=4L64mKIG_ 4UC&pg=PA 1&dq=%22corrugated+plasti c%22&h l=fr&sa=X& ved=2ah U KEwjlcz6uaXvAhWRzaQKHcQpAF4O6AEwAnoECAMQAg#v=onepage&q=%22corrugated%20plastic%22&f=false	
	172.	PACKAGE ENGINEERING https://books.google.ch/books?id=DydNAAAA YAAJ&q=%22corrugated+plastic%22&dq=%22corrugated+plastic%22&hl=fr&sa=X& ved=2ah U KEwiq296WvaXv Ah WI POwKHfcaDrk4KBDoATAGeQOIBBAC	
	173.	Exhibit A-1 – Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	174.	Exhibit A-2 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
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	193.	Exhibit C-3 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	194.	Exhibit C-4 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	195.	Exhibit C-5 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	196.	Exhibit C-6 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	197.	Exhibit C-7 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	198.	Exhibit C-8 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	

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	199.	Exhibit C-9 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
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	202.	Exhibit C - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	

EXAMINER SIGNATURE			
Examiner Signature		Date Considered	
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

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Electronic Acknowledgement Receipt

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National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PORTION CAPSULE HAVING AN IDENTIFIER

Field

[0001] These teachings relate to a beverage system for making a beverage having a single-serve capsule and a beverage machine.

Background

[0002] The present invention relates to a portion capsule for producing a beverage, comprising a base element having a cavity in which a beverage raw material is provided and which is closed by a membrane fastened to the base element.

[0003] Such capsules are well known and are being launched onto the market in abundant variety. Since these capsules are often quite similar, it is possible that the manufacturer's capsules are used in a coffee machine designed by another manufacturer, although they are not suited for it. This may result in significant security issues and/or the coffee machine may be damaged.

[0004] The object of the present invention is therefore to provide a portion capsule which only is suitable for a specific coffee machine.

SUMMARY

[0005] The object is accomplished according to the present invention by a portion capsule for producing a beverage, comprising a base element having a cavity in which a beverage raw material is provided and which is closed by a membrane fastened to the base element,

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wherein it has an identifier, which allows to individualize the respective portion capsule.

[0006] The present invention relates to a capsule for producing a beverage or foodstuff, comprising a base element having a cavity in which a beverage raw material is provided. Such capsules are, for example made of plastic, natural materials and/or biodegradable materials and substantially have a base element, in particular a deep-drown base element, i.e. it is substantially designed frustoconically or cylindrically. The beverage raw material is arranged within the portion capsule's cavity and is extracted and/or dissolved in a liquid, in particular water. After the beverage raw material has been filled into the cavity the base element is usually sealed by a membrane. In particular the membrane is localized on the opposite side of the base element's bottom. The membrane can be made of the same or different material as the base element and is substantially attached to the base element using a sealing and/or an adhesive bonding. Additionally, the cavity could contain one or several built-in elements, such as, for example a filter, a non-woven, a felt, a shut-off device and/or something similar to those. For the case that a non-woven and a felt are arranged within the cavity, they are interconnected preferably. The non-woven and/or the felt can be made of several layers in such a way that the layers may differ in the kind of its starting material and/or its preparation. Moreover, the membrane and/or the bottom can be provided with a plurality of recesses (holes).

[0007] According to the present invention, it is provided that the portion capsule has an identifier that allows to individualize the respective portion capsule. In the context of this invention individualizing means that the respective portion capsule can be assigned to a group of capsules that are suitable for the coffee machine preferably. It is not necessary

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that the coffee machine is able to specify and/or identify the portion capsule. In fact, it is much more important that the coffee machine associates the portion capsule with a group of portion capsules, which is suitable for the coffee machine. In particular, individualizing means that those portion capsules that are not appropriate for the coffee machine cannot be inserted into and/or directly fall through the holder, which is designed for the portion capsules in the coffee machine, and/or the coffee machine operates only with the corresponding portion capsules. Preferably a sensor/detection system handles the identifier and compares it with a stored reference substantially. Preferably, the coffee machine, in particular the water-providing- pressure pump, will be activated if the detected identifier matches with the reference. Otherwise, the coffee machine will not start operating. Preferably the detection system is placed in the region of the coffee machine's media chute designed for the portion capsules. According to another preferred embodiment of the invention, the detection system may be placed in the region of the brewing chamber. Another possible embodiment of the invention provides that the identifier prevents portion capsules from inserting into the coffee machine. Alternatively, or additionally, means, in particular mechanical means, more preferably, one or more gearwheels, may be added to the media chute in order to guarantee that incorrect portion capsule cannot be inserted into the coffee machines by passing the media chute.

[0008] Preferably, the identifier is composed of surface areas having different optical properties, for example reflection. These surfaces may be localized on the membrane, the side wall and/or the bottom of the portion capsules. Preferably, the portion capsule has at least two areas which differ in their optical properties, for example the reflection characteristics.

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[0009] The detection of a recess and/or a bulge is also preferred. Preferably, recess and bulges alternate and/or at least two recesses or bulges are separately placed from each other. Especially it is possible that the recess and/or the bulge form a gearwheel that is attached to the outer border and/or at least partially extends to the wall region of the portion capsule. The recess and/or bulge may be produced by any shaping method, for example by deep drawing, preferably.

[00010] Furthermore, the recess may be realized by removing material. In particular, the material's removal can be accomplished by punching or using a laser on condition that this processing does not damage a barrier layer placed in the portion capsule's material, which prevents moisture or aroma from escaping out of the portion capsule and/or water vapor or oxygen enters the capsule. The reading of the identifier, which is encoded in the recess and/or bulge, may be a result from a mechanical and/or optical method, for example. Alternatively, or additionally, the identifier can be used to avoid that the portion capsule is inserted into the coffee machine. This applies in particular to the media chute. For example, it is possible to design a portion capsule comprising a ring gear that is placed on its circumference and is compatible with another ring gear, which is placed in the media chute. If the media chute's ring gear only revolves for a corresponding ring gear of the portion capsule and its revolving allows the portion capsule to pass, only portion capsules equipped with the proper ring gear will pass the insertion lock.

[00011] According to a further subject matter of a preferred development of the

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present invention, the identifier may be included in the membrane. Preferably, the identifier is a layer or partial layer of the membrane. Such identifiers may be an optically detectable material, for example a fluorescent material. Furthermore, the identifier may be designed with layers made of metal or ferrous metal or stripes made of metal or ferrous metal in or on the membrane, respectively.

[00012] Preferably the identifier is a machine-readable imprint. This is realized with a print in food approved color, preferably. Fluorescent materials like paper or print materials, whose optical properties change under the influence of temperature, are favored also. Preferably the print is a barcode, a logo or a repeat pattern.

[00013] According to a further subject matter of a preferred development of the present invention, the identifier is an electrically conductive section, which can be placed all over the portion capsule, but is localized on the side wall, the edge and/ or the floor preferably. The electrically conductive section, which is inserted into the coffee machine, can become part of an electric circuit, and causes therefore a measurable change, which leads to the identification of the respective portion capsule. In a further preferred embodiment, the identifier is a section made of a ferromagnetic material.

[00014] Another construction version favors a RFID chip being the identifier.

[00015] If the portion capsule is customized according to the invention, portion capsules that are not in line with the coffee machine will be prevented from inserting into the coffee machine. Furthermore, it is possible that the identifier allows to

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identify the portion capsule located in the brewing chamber in such a way that the production process of beverage or food may be controlled, for example by adjusting the temperature, the pressure and/or the amount of water.

[00016] According to a further subject matter of a preferred development of the present invention, the portion capsule's material is weakened in the bottom area caused by a selective material removal, for example by using a laser. The weakening is provided for piercing the portion capsules using a mandrel. This procedure is needed for the beverage's preparation. Since the material is weakened in the section, which is treated with a laser and is supposed to be pierced using the mandrel, the degree of necessary force for piercing the portion capsule is reduced. The mandrel of such coffee machines is usually equipped with a force limitation that limits the force, which is dedicated for pressing the mandrel against the portion capsule's bottom. This preparation avoids that portion capsules having no appropriate weakening can be used in such a coffee machine. Consequently, the weakening represents another kind of identifier.

[00017] According to a further subject matter of a preferred development of the present invention, the portion capsule has an edge region, which is preferably attached to the base element. Preferably, the edge is located opposite of the base element's bottom area. After the raw material has been filled in the portion capsule, a membrane can be attached to this edge region, for instance. Moreover, the edge can also designed for guiding the portion capsule into the chute in order to position the portion capsule in the brewing chamber properly. Simultaneously, it is possible to use the surface of the edge for stopping and/or sealing.

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[00018] Preferably provision is made for the portion capsule to have means for fit locking, friction locking and/or detection in the edge region. The means for fit locking and/or friction locking may be used to activate a complementary mechanism, which is located in the coffee machine, in order to allow inserting the portion capsule into the coffee machine and/or starting a sensor, like a gearwheel, that transmits a signal to a control unit depending on whether the portion capsule corresponds to the coffee machine or not. Alternatively, or additionally, a detector may identify the mean for fit locking, friction locking and/or detection in order to check that the portion capsule is suitable to the respective coffee machine.

[00019] Preferably, the means for fit locking, friction locking and/or detection is a gearwheel or a gearwheel segment, which are located, in particular, in the outer area of the edge region. The teeth of the gearwheel or the gearwheel segment may be shaped in any commonly used form, which is known, for example, by an expert from gear manufacturing. Preferably, it is provided that these teeth are triangular, rectangular, square, or wavy.

[00020] Preferably, there is a sealing surface, that is arranged on the interior side relative to the gearwheel or the gearwheel segment.

[00021] Another and preferred state-of-the-art technology is a portion capsule for producing a beverage, comprising a base element substantially designed frustoconically or cylindrically, having a cavity in which a beverage raw material is

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provided and which is closed by a membrane fastened to the base element with the base element having a wall region and the base element having a bottom area, which is preferably located opposite to the membrane, with the wall region having several grooves and the grooves which are located between membrane and bottom area covering the wall region along its height at least partially. The grooves may be also located in the edge region, in particular on the outer area of the edge region.

[00022] This portion capsule has the advantage over the portion capsule according to the state-of-the-art technology that, for instance, the grooves reinforce the base element's wall region. On the one side, these grooves make the portion capsule more stable towards mechanical forces and prevent the portion capsule from deformation and buckling, in particular. The arrangement of the grooves, which are located at the wall region, additionally improves the performance of the portion capsule while the extraction liquid flows through it in the brewing chamber, since the arrangement of the grooves, in particular those partially expending over the wall region between membrane and bottom area, increase quality and reliability of the extraction process significantly. According to the invention another advantage is that the base element's thickness can be reduced, because the use of grooves improves the physical stability. The production of the portion capsule is therefore much less expensive and more environmentally friendly. On the other side, the grooves reduce or avoid the contact between the portion capsule's wall region and the wall of the brewing chamber. As a result, ejecting or removing the portion capsule from the brewing chamber is made easier. Another advantage of using a plurality of grooves is that the stream of the extraction liquid, which flows along the base element in the cavity, can be optimized by

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choosing a grooves' structure that is able, for example, to generate on the one hand a better or stronger turbulence in the extraction liquid or on the other hand a more uniform (laminar) flow of the extraction liquid, in the wall region. The control of the liquid may be obtained by the structure of the grooves itself or by using simple means additionally. A stronger turbulence compared to the one known in the state-of-the-art has the advantage that no unintended and casual main streams are formed in the raw materials. Instead, the extraction liquid equally flows through the raw material in all of the volume. Thus, the extraction process is much more efficient and can be controlled more precisely and reproducibly.

[00023] In particular, the raw material may be coffee powder (especially ground roasted coffee), chocolate powder, milk powder, tea, or the like. Alternatively, it is conceivable that the raw material is a beverage's extract, such as instant coffee for example.

[00024] In particular, the grooves are recesses and bulges, which are preferably directed along a main extension and are preferably extended along the wall portion or the periphery of the edge region. More preferably, the grooves are formed as webs and/or notches. A gearwheel, for instance, may be obtained by the grooves. Therefore, the grooves are part of the base elements' wall, optionally located on the inner side facing to the cavity and/or on the outside facing away from the cavity.

[00025] According to a preferred embodiment of the present invention, it is provided that the grooves form an identifier that allows individualizing the portion

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capsule. In the context of this invention individualizing preferably means that the respective portion capsule can be assigned to a group of capsules that are suitable for the respective coffee machine or the machine producing a beverage. It is not necessary that the coffee machine or the device for producing a beverage is able to specify and/or identify the portion capsule. It is more important that the device for producing a beverage, in particular a coffee machine, associates the portion capsule with a group of portion capsules, which is appropriate for the respective device for producing a beverage, in particular a coffee machine. In particular, individualizing means that those portion capsules that are not appropriate for the coffee machine (or the device producing the beverage) cannot be inserted into and/or directly fall through the holder, which is designed for the portion capsules in the coffee machine (or the device producing the beverage), and/or the coffee machine (or the device producing the beverage) operates only with corresponding portion capsules ("proper portion capsule"). In particular, individualizing means that the coffee machine or the device producing the beverage will not operate properly in the intended use, if the used portion capsule is not customized according to the invention. Preferably, a sensor/detection system, attached to the coffee machine or the device producing the beverage, records the identifier and substantially compares it with a stored reference. In particular, it is possible that such an identification process is based on a mechanical fitting, especially a fitting of a gearwheel or of a contour comparable with a gearwheel, which is attached to the device producing the beverage or the coffee machine and interacts with the portion capsule. It is preferred that the device for producing the beverage or the coffee machine only will operate, if the identifier matches to the reference or the mechanical fittings match with each other. In this case the device for producing the beverage particularly starts to operate, especially activates a pressure or water pump. The

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mean for detection or mechanical fitting is preferably located in the region of the media chute or in the region of the device for producing the beverage. Alternatively, the identifier or the mechanical fitting may avoid that an unsuitable portion capsule is inserted into the device for producing the beverage. A portion capsule, which is designed in accordance with the invention, makes it possible that a portion capsule that is not designed for the device for producing a beverage cannot be inserted into it. Additionally, the identifier allows that the device for producing the beverage, especially the coffee machine, may specify the sort of the portion capsule and thereby control the production process of beverage and food by adapting, for example, the pressure, the temperature and/or the amount of water.

[00026] According to a further preferred embodiment of the present invention, it is provided that at least a part of the grooves and at least in a subarea parallel to the main plane of the membrane is gearwheel shaped.

[00027] According to the present invention, it is an advantage that it is possible to increase the stability of the portion capsule's wall region, to realize improved turbulences of the extraction liquid and thereby to improve the extraction's process under the same conditions, for example, such as material thickness and the like. Another advantage is that it is easy to generate a mechanical identifier or a mechanical fitting that matches with a fitting tool that belongs to the device for producing a beverage. According to the invention it is an further advantage that, for example, a gearwheel, which is attached to the device for producing a beverage and is, for example, located in the region of the media chute or similar, can possibly interacts with the gearwheel's contour of the portion capsule. In this

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way it is possible to generate a mechanical fitting that allow to individualize the portion capsule as a proper one and/or to specify the sort of portion capsule and/or to rotate the portion capsule about an axis of rotation, that is perpendicular to the membrane's main plane, by using the gearwheel's arrangement. Such an embodiment of the invention makes it possible that the portion capsule is always opened with the device for producing a beverage on the same spot (with respect to its angular position) and therefore the raw material is extracted on the same manner. Moreover, the grooves prevent the portion capsule from being inserted into the coffee machine.

[00028] In a preferred version of the invention, it is provided that there is a flange/edge region being averted from the bottom region, for fixing the membrane to the base element, where in the wall region between flange/edge region and bottom region preferably has a border and the grooves are being preferably extended to this border.

[00029] Because of this it is another advantage according to the invention that on the one hand the wall region can be constructed in a stable and reinforced manner and on the other hand the gearwheel shaped contour of the grooves, located at the wall region, is able to absorb a relative high load. With that it is possible that the portion capsule can be rotated easily and without any damaging of the portion capsule within the device for producing a beverage.

[00030] Preferably, the base element's diameter is enlarged in the border's region compared to the wall region, which range from the border to the bottom region.

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[00031] This gives rise to the advantageous possibility to stack portion capsule or portion capsules' base elements easily and robustly.

[00032] Moreover, it is preferred that at least a part of the grooves are gearwheel shaped and at least a plane, which is at least partially gearwheel shaped, is parallel to the membrane in such a way that the gearwheel shaped contour expands over the borders or the flange/edge region.

[00033] Further preferred versions of the present invention relate to portion capsules that implement one or more of the following characteristics:

- the base element tapers in the direction of the flange in the border's region,
- the grooves directed toward the bottom region expand over the border's region,
- the grooves approximately cover 20% -80%, preferably 40% - 60% of the wall region, which is placed between the border and the bottom region,
- the grooves are constructed in such a way that the wall region is reinforced and/or the grooves causes an extraction liquid's turbulence in the cavity.

[00034] Other preferred versions of the present invention relate to portion capsules that are manufactured in such a way that the ratio of the diameter of that wall region of the base element which adjoins the flange to the diameter of the flange is between 0.85 and 0.89, and in particular substantially 0.87.

[00035] In a preferred version, the wall region's diameter, which is adjacent to

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the flange, is 39 millimeters and the flange's diameter is 45 millimeters. Another advantageous version of the invention prefers a base element having a thicker wall region in the border's region compared to the wall region between bottom region and flange. Since the portion capsule's design, which contains grooves in the wall region, improves its stability, it is possible to save material by manufacturing the portion capsule and therefore to reduce cost and energy required for manufacturing the portion capsules.

[00036] According to the invention it is further provided that a filter element is arranged into the cavity. Such a filter element divides the cavity into a first region for accommodating the beverage raw material and into a second region for accommodating a beverage extract. In particular, it is provided that the filter element is made of a non-woven material.

[00037] According to a further subject matter or a preferred development of the present invention the portion capsule according to the invention is intended for the preparation of a hot beverage. In the following the invention is explained based on the Figures 1 - 22. These explanations do not restrict the general idea of the invention.

Brief Description of the Drawings

[00038] **Figures 1A and 1B** show a portion capsule containing sections that differs optically.

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[00039] **Figures 2A, and 2B** show a portion capsule containing a barcode.

[00040] **Figures 3A and 3B** show a portion capsule with recesses and bulges.

[00041] **Figure 4** shows a portion capsule containing sections that differs optically.

[00042] **Figure 5** shows a portion capsule with a key function.

[00043] **Figure 6** shows a portion capsule's wall that is electrically conductive.

[00044] **Figure** 7 shows a portion capsule's wall containing sections that differs optically.

[00045] **Figure 8** shows an enlarged pot construction of the portion capsule's wall.

[00046] **Figure 9** shows an edge region that is electrically conductive.

[00047] **Figure 10** shows a portion capsule containing a bottom that is electrically conductive.

[00048] **Figure 11** shows an embodiment containing a layer that can be detected by a metal detector.

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[00049] **Figure 12** shows a metallic strainer.

[00050] **Figure 13** shows a portion capsule containing a ferromagnetic section.

[00051] **Figure 14** shows a portion capsule containing a barcode.

[00052] **Figure 15** shows a portion capsule containing a section, which is electrically conductive, in the wall.

[00053] **Figures 16A and 16B** show a portion capsule with a gearwheel placed in the brewing chamber.

[00054] **Figures 17A, 17B, and 17C** show different embodiments of the portion capsule according to Figures 16A and 16B.

[00055] **Figure 18** shows the portion capsule according to the Figures 16 A and 16B and Figures 17 a-c, when the portion capsule is fit locking with a gearwheel.

[00056] **Figures 19 and 20** show a schematic view of a portion capsule according to an embodiment of the presented invention.

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[00057] **Figures 21 and 22** show two sectional views of the portion capsule according to an embodiment of the presented invention.

Detailed Description

[00058] **Figures 1A and 1B** show a portion capsule 1 comprising a base element 2 that has a wall region 2.1 and a bottom area 2.2. The wall region 2.1 and the bottom area 2.2 define a cavity 3, which may include the raw material and perhaps a built-in element. After filling, the cavity 3 is sealed by a membrane 4, which is preferably attached to the edge region 2.4 of the base element using seal or glue. This portion capsule can be inserted into a brewing chamber 12, with a liquid, in particular water, flowing through it. During this process, the raw material is extracted or dissolved and therefore the beverage is produced. According to the invention the portion capsule has only one identifier that allows to determine whether the respective portion capsule goes with the coffee machine's brewing chamber 12 and the parameters for processing are chosen properly. If it is not the case, significant security issues arise. Inserting the wrong portion capsule, for example, endangers the brewing chamber's tightness. In this case hot water can be discharged under high pressure and therefore compromise the user's safety. Otherwise, it is also possible that inserting the wrong portion capsule damages the coffee machine. In this example the identifier is represented by several raised areas 8, which differ in reflection properties from the sections between the raised areas. As shown by the arrows the bulges are passed by a mean for detection 13 (here: an optical detector) that is able to differentiate between the unequal sections 5, 6 having different optical properties such as, for example, reflection. Switching between the different sections or the number of bulges represents the identifier. After the identifier has been read out the

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identifier is compared to a stored reference. If the identifier agrees with the reference, the coffee machine will start operating. Particularly the pump, which is for example responsible for pushing hot water through the brewing chamber, will not start operating, if the identifier does not agree with the reference.

[00059] All the remarks concerning the identifier apply to all the examples.

[00060] **Figures 2A and 2B** show another embodiment of the portion capsule 1 according to the invention. The portion capsule 1 comprises a base element 2 that has a wall region 2.1 and a bottom area 2.2. Here the portion capsule 1 has a barcode 50 placed in the area of the membrane's 4 top surface. This barcode may be printed by material removal or may be generated by a medium that is integrated in the foil and can be detected optically such as a fluorescence agent. Alternatively, metal rings may be part of the foil or attached to the foil. The barcode's section may be made of a ferromagnetic material. As shown by the arrow 15 the barcode 50 alternatively can be attached to the base element's edge region being averted from the membrane 4. Such a barcode is read out by a detector 13 placed, for example, in the media chute. The barcode represents the identifier according to invention.

[00061] **Figures 3A and 3B** show another embodiment of the portion capsule 1 according to the invention. In the present case the identifier comprises recesses and bulges 7, 8, which result from material removal or reshaping the portion capsule as shown here by the example of the portion capsule's wall 2.1. In the present case, recesses and bulges interact with a means for detection 13, which operates like a key, wherein the coffee

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machine only start operating, when all elements 14 are placed in the respective recess 7. Therefore, an electric circuit may be changed or especially closed.

[00062] **Figure 4** shows an embodiment of the portion capsule being substantially identical to the embodiment illustrated in Figure 1. As an alternative version of the invention, the figure additionally shows that the unequal sections 5, 6 differing in terms of optical properties can be attached to the cover foil, for example in the form of a barcode.

[00063] **Figure 5** shows an embodiment of the portion capsule being substantially identical to the embodiment illustrated in Figure 3 that includes recesses 7 and bulges 8. Again, the recesses represent the key bit. The coffee machine only will start operating, if the recesses interact with the corresponding bulges and therefore an electric circuit is changed respectively. The placement of such a system is not restricted to the brewing chamber. For instance, the system may be placed in the portion capsule's media chute.

[00064] **Figure 6** shows a version of the invention that includes a base element 2 and an electric material forming a surrounding ring 2.3, which preferably has a raised form. The electrically conductive material is scanned by means for detection 13 having electric sliding contacts, which are placed in the media chute and form electric contacts of an electric circuit, while the portion capsule is inserted.

[00065] **Figure** 7 shows an embodiment of the portion capsule being substantially identical to the embodiment illustrated in Figure 6, in which it is provided that the ring area has reflective 21 or mat 22 sections, for example in form of a covering, and allows a

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read-out by means for detection 13 for optical detection, which are placed in the media chute and are part of a control current, while the portion capsule is inserted.

[00066] **Figure 8** shows a relative broad and raised ring 2.3 which represents the identifier. The media chute is equipped with a corresponding vacancy that tests whether the portion capsule has the proper identifier. The broad ring is scanned, for example, by means for detection 13 having mechanical sensors, which are placed in the media chute and close the contacts of an electric circuit, while the portions capsule is inserted.

[00067] **Figure 9** shows another embodiment of the portion capsule according to the invention. In the present case an electrically conductive coat 10 is integrated in the edge region's back and is scanned by electric sliding contacts, which are placed in the media chute and form electric contacts of an electric circuit, while the portion capsule is inserted.

[00068] **Figure 10** shows another embodiment of the portion capsule according to the invention. In the present case the portion capsule has an electrically conductive coat 10 at the bottom area 2.2 such as a conductive varnish layer or an aluminum foil. The coat is scanned by means for detection 13 having electric sliding contacts, which form electric contacts of an electric circuit, while the portion capsule is inserted.

[00069] **Figure 11** illustrates a version of the portion capsule having also an electrically conductive coat 10 that is placed on its bottom 2.2 and is identified by a means for detection 13 having a metal sensor, which is placed in the chute and, for example,

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detects inductively, while the portion capsule is inserted.

[00070] The embodiment of the invention shown in **Figure 12** has a built-in element made of metal (here a strainer 19) that is recognized as identifier by a means for detection 13 having a metal detector.

[00071] The version of the invention shown in **Figure 13** includes a ferromagnetic material 20 placed at the portion capsule' bottom. The identifier is scanned, by means for detection 13 for example, by a magnet, which is placed in the chute, while the portion capsule is inserted. The ferromagnetic material acts as identifier.

[00072] **Figure 14** shows another embodiment which includes a barcode placed in the region of the cover foil. The portion capsule includes a flange 17.

[00073] According to the embodiment shown in **Figure 15** a metallic ring 11 is integrated in the wall region 2.1 and closes means for detection 13 having an electric circuit placed in region of the brewing chamber.

[00074] **Figures 16A and 16B** show another embodiment of the portion capsule 1 according to the invention. The illustrated portion capsule features a base element 2 that is basically conical- shaped in the present case and has a bottom region 2.2 and a wall region 2.1. It is provided that the base element contains the raw material and, if necessary, build-in elements like a filter as illustrated here. The expert knows that the build-in element may also include other build-in elements. A flange 17 /edge region 2.4, which is

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preferably circular and, for example, may be used for sealing a cover foil 4 to it, is attached to the end of the base element, which is placed opposite to the bottom. The flange/edge region has means for fit locking, friction locking and/or detection 2.4.2 in the outer area (outer circumference). As especially shown in the Figures 17a - 17c the means for fit locking, friction locking and/or detection 2.4.2 is, in the present case, a gearwheel that is formed by several recesses/bulges evenly arranged in the edge region. Preferably, it is provided that the edge region has a sealing surface 2.4.1, which sealingly interacts with the seal 31 attached to the brewing chamber 12, on the interior side of the gearwheel. The sealing 31 makes sure that the water coming from a water inlet 28 flows through the portion capsule by passing an opening, which has been made by a mandrel 29, than around it.

[00075] **Figures 17A, 17B, and 17C** show different embodiments of the means for fit locking, friction locking and/or detection 2.4.2. According to the version shown in Figure 17A, the gearwheel has forty-five teeth. According to the version shown in Figure 17B or 17C, the gearwheel has twenty-two or twenty-nine teeth, respectively. The expert knows that the manufactured teeth can be shaped arbitrarily. All Figures 17A, 17B, and 17C demonstrate how the portion capsule 1 can be held by a part of the brewing chamber 12 using two holding arms 30. The holding arms interact with the means for fit locking, friction locking and/or detection 2.4.2. If they are not available, the holding arms will not hold the portion capsule and the portion capsule will not be inserted into the brewing chamber and will fall through it into a dropping box instead. The portion capsule has a base element 2, a wall region 2.1, a bottom area 2.2, a sealing surface 2.4.1, and an edge region 2.4.

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[00076] **Figure 18** shows the means for fit locking, friction locking and/or detection 2.4.2 along with mean for fit locking 24, which is attached to the coffee machine and is represented by a pinion here. It is provided that the mean for fit locking 24 is placed in the media chute or insertion shaft 26 of an insertion shaft housing 23 having a port for inserting the portion capsule in the coffee machine. The distance between the inner wall 25 of the portion capsule 1 and the mean for fit locking 24 represented by the pinion 24 are designed in such a way that the portion capsule only will pass the port, if the means for fit locking, friction locking and/or detection 2.4.2 is formed complementary to the teeth of the mean for fit locking 24 represented by the pinion. Only in this case the portion capsule rotates the mean for fit locking 24 represented by the pinion 24 while it falls. Both rotating and falling are represented by arrows in the figure. The portion capsule needs the rotation for passing the media chute's port and falling in the intended position afterwards. If the portion capsule has no or wrong mean of fit locking, it will be impossible to place the portion capsule by passing the media chute in the intended position. Additionally, or alternatively, it is provided that the mean for fit locking 24 represented by the pinion has a pick-up that detects the rotary movement and transmits it to a control unit. If the rotation at least corresponds a defined rotating element, the control unit will activate, for example, the brewing unit. The expert knows that the portion capsule's border may include means for friction locking that interacts with a mean, for example an edge, and shift it in such a way that the shift is detected and therefore the brewing chamber is activated. The portion capsule 1 has a cover foil 4 and a sealing surface 2.4.1.

[00077] The expert moreover knows that a sensor, being for example a camera,

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which detects the form of the means for fit locking, friction locking and/or detection 2.4.2, may be installed in the media chute. In the present case the form and/or the distance between the teeth may be detected. If the proper portion capsule was inserted, a resulting signal could be transmitted to a control unit, which activates the brewing chamber.

[00078] **Figure 19** schematically shows a view of another portion capsule's version according to an embodiment of the present invention. **Figure 20** illustrates the same portion capsule from a different point of view schematically. Figure 19 shows the front view of the portion capsule. Figure 20 shows the portion capsule viewed from an angle below. In all figures the portion capsule is labeled with the reference sign 1. The portion capsule substantially has a frustoconically shaped base element 2, which is formed similar to a pot and encloses a cavity 3. The cavity 3 is sealed by a membrane 4. Since the viewing direction of Figure 19 is essentially parallel to the plane, in which the membrane is located, the membrane is at the upper edge of the portion capsule. In particular, the base element 2 comprises a soft, semi-rigid or rigid plastic material which is deep-drown, preferably. The membrane comprises a foil made of plastic material or aluminum. Preferably the base element has a circumferential mounting flange 17 in the region of the membrane, with the membrane and the mounting flange 17 being firmly bonded, in particular by welding or gluing. Preferably a filter element, which is not specifically depicted in the figures, is placed within the base element 2. For instance, the filter element is made of thermoplastic resin such as, for example, polypropylene. The filter element could also be made of a non-woven material such as, for example, thermoplastic resin. Preferably the filter element divides the cavity 3 in two sections. It is provided that the first section can be filled with a raw material and the second section can be filled with and

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particularly collect a beverage's extract, which is not shown, during the extractions process. Both sections are not illustrated individually.

[00079] The portion capsule is intended for inserting into a brewing chamber or a device for producing a beverage, which is not shown here. In particular such a device for producing a beverage is a coffee machine. The device for producing a beverage could be also a machine that produces a tea drink, a chocolate drink or any other beverage. Preferably an extraction liquid, which is particularly water or hot water, is brought under high pressure into the brewing chamber of the device for producing a beverage. The extraction liquid interacts with the raw material of the beverage in such a way that an extract of a beverage or a beverage is generated. In particular the filter element is utilized as a strainer for the extract of a beverage.

[00080] According to the invention, the base element 2 has a wall region 2.1 and a bottom area 2.2. The wall region 2.1 basically ranges from the flange 17 to the bottom region 2.2. Several grooves 32 are placed in the wall region. In particular these grooves are keyways that are integrated in the wall region 2.1 and are facing the cavity 3 and range from the flange 17 to the bottom region 2.2 (i.e. they run perpendicular according to Figure 19). According to the invention provision is made for the grooves 32 to be extended vertically across the wall region, i.e. they run straight from the flange 17 to the bottom region 2.2, in which it is not necessary that they are extended over the whole length. The grooves are formed according to the invention in such a way that the wall region is reinforced or stiffened due to the grooves 32. Moreover, the plurality of the grooves 32, which are distributed over the wall region 2.1, realize an adhesion between

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wall region 2.1 and the brewing chamber's wall of the device for producing a beverage after the extraction process. This makes it easier to eject the portion capsule from the brewing chamber automatically. The portion capsule's version represented in Figure 19 comprises a circumferential border 16 that is placed at the wall region 2.1 ranging from the flange 17 to the bottom area 2.2, namely adjacent to the flange 17 facing towards the bottom area 2.2. The border 16 has an enlarged diameter (parallel to the membrane 4) compared to the wall region's ranging from the border 16 to the bottom area 2.2. It is provided that the border's contour 16 is designed in such a manner that the border's diameter tapers towards the flange 17.

[00081] It is provided according to the portion capsule's embodiment, which is represented in Figure 19 and is in accordance with the invention, that the grooves 32 are placed in the border's region in the first part, partially range from the border 16 to the bottom area 2.2 across the wall region 2.1, in the second part and then finally end. All in all, the grooves cover, for example, around 50 % of the extension of the wall region 2.1, which ranges from the flange 17 to the bottom area 2.2, wherein one-third of the grooves' extension is placed in the border's region and two-thirds of the grooves' extension is placed in the remaining wall region 2.1 that range from the border 16 to the bottom area 2.2.

[00082] A portion capsule 1 according to the invention is shown as sectional view along the portion capsule's extension regarding its height in **Figure 21,** i.e. the section's plane is perpendicular to the membrane's main plane. **Figure 22** also shows a portion capsule according to the invention in a sectional view portraying the

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sectional plane, which is parallel to the membrane's main plane. It is noticeable that the interior of the portion capsule's cavity is shown in Figure 21. The portion capsule's material or the base element's material is so thin that the implementation of grooves 32 at the exterior shown in Figure 19 leads to corresponding convexities 34 and impressions at the interior. Figure 22 particularly illustrates the gearwheel shaped contour 36 resulting from insertion of grooves in the portion capsule's 1 wall region.

List of reference numerals

1	portion capsule
2	base element
2.1	wall region
2.2	bottom area
2.3	ring
2.4	edge region
2.4.1	sealing surface
2.4.2	means for friction locking and/or detection
3	cavity
4	membrane, cover foil
5,6	unequal sections
7	recess
8	raised area, bulge
10	electrically conductive coat
11	metallic ring
12	brewing chamber
13	detector, mean for detection
14	beam
16	border
17	flange
20	ferromagnetic material
21	reflective section

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22	mat section
23	insertion shaft housing
24	mean for fit locking
25	inner wall
26	insertion shaft
28	water inlet
29	mandrel
30	holding arms
31	seal
32	grooves
34	convexities
36	gearwheel shaped contour

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PORTION CAPSULE HAVING AN IDENTIFIER

Field

[0001] These teachings relate to a beverage system for making a beverage having a single-serve capsule and a beverage machine.

Background

[0002] The present invention relates to a portion capsule for producing a beverage, comprising a base element having a cavity in which a beverage raw material is provided and which is closed by a membrane fastened to the base element.

[0003] Such capsules are well known and are being launched onto the market in abundant variety. Since these capsules are often quite similar, it is possible that the manufacturer's capsules are used in a coffee machine designed by another manufacturer, although they are not suited for it. This may result in significant security issues and/or the coffee machine may be damaged.

[0004] The object of the present invention is therefore to provide a portion capsule which only is suitable for a specific coffee machine.

SUMMARY

[0005] The object is accomplished according to the present invention by a portion capsule for producing a beverage, comprising a base element having a cavity in which a beverage raw material is provided and which is closed by a membrane fastened to the base element,

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wherein it has an identifier, which allows to individualize the respective portion capsule.

[0006] The present invention relates to a capsule for producing a beverage or foodstuff, comprising a base element having a cavity in which a beverage raw material is provided. Such capsules are, for example made of plastic, natural materials and/or biodegradable materials and substantially have a base element, in particular a deep-drown base element, i.e. it is substantially designed frustoconically or cylindrically. The beverage raw material is arranged within the portion capsule's cavity and is extracted and/or dissolved in a liquid, in particular water. After the beverage raw material has been filled into the cavity the base element is usually sealed by a membrane. In particular the membrane is localized on the opposite side of the base element's bottom. The membrane can be made of the same or different material as the base element and is substantially attached to the base element using a sealing and/or an adhesive bonding. Additionally, the cavity could contain one or several built-in elements, such as, for example a filter, a non-woven, a felt, a shut-off device and/or something similar to those. For the case that a non-woven and a felt are arranged within the cavity, they are interconnected preferably. The non-woven and/or the felt can be made of several layers in such a way that the layers may differ in the kind of its starting material and/or its preparation. Moreover, the membrane and/or the bottom can be provided with a plurality of recesses (holes).

[0007] According to the present invention, it is provided that the portion capsule has an identifier that allows to individualize the respective portion capsule. In the context of this invention individualizing means that the respective portion capsule can be assigned to a group of capsules that are suitable for the coffee machine preferably. It is not necessary

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that the coffee machine is able to specify and/or identify the portion capsule. In fact, it is much more important that the coffee machine associates the portion capsule with a group of portion capsules, which is suitable for the coffee machine. In particular, individualizing means that those portion capsules that are not appropriate for the coffee machine cannot be inserted into and/or directly fall through the holder, which is designed for the portion capsules in the coffee machine, and/or the coffee machine operates only with the corresponding portion capsules. Preferably a sensor/detection system handles the identifier and compares it with a stored reference substantially. Preferably, the coffee machine, in particular the water-providing- pressure pump, will be activated if the detected identifier matches with the reference. Otherwise, the coffee machine will not start operating. Preferably the detection system is placed in the region of the coffee machine's media chute designed for the portion capsules. According to another preferred embodiment of the invention, the detection system may be placed in the region of the brewing chamber. Another possible embodiment of the invention provides that the identifier prevents portion capsules from inserting into the coffee machine. Alternatively, or additionally, means, in particular mechanical means, more preferably, one or more gearwheels, may be added to the media chute in order to guarantee that incorrect portion capsule cannot be inserted into the coffee machines by passing the media chute.

[0008] Preferably, the identifier is composed of surface areas having different optical properties, for example reflection. These surfaces may be localized on the membrane, the side wall and/or the bottom of the portion capsules. Preferably, the portion capsule has at least two areas which differ in their optical properties, for example the reflection characteristics.

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[0009] The detection of a recess and/or a bulge is also preferred. Preferably, recess and bulges alternate and/or at least two recesses or bulges are separately placed from each other. Especially it is possible that the recess and/or the bulge form a gearwheel that is attached to the outer border and/or at least partially extends to the wall region of the portion capsule. The recess and/or bulge may be produced by any shaping method, for example by deep drawing, preferably.

[00010] Furthermore, the recess may be realized by removing material. In particular, the material's removal can be accomplished by punching or using a laser on condition that this processing does not damage a barrier layer placed in the portion capsule's material, which prevents moisture or aroma from escaping out of the portion capsule and/or water vapor or oxygen enters the capsule. The reading of the identifier, which is encoded in the recess and/or bulge, may be a result from a mechanical and/or optical method, for example. Alternatively, or additionally, the identifier can be used to avoid that the portion capsule is inserted into the coffee machine. This applies in particular to the media chute. For example, it is possible to design a portion capsule comprising a ring gear that is placed on its circumference and is compatible with another ring gear, which is placed in the media chute. If the media chute's ring gear only revolves for a corresponding ring gear of the portion capsule and its revolving allows the portion capsule to pass, only portion capsules equipped with the proper ring gear will pass the insertion lock.

[00011] According to a further subject matter of a preferred development of the

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present invention, the identifier may be included in the membrane. Preferably, the identifier is a layer or partial layer of the membrane. Such identifiers may be an optically detectable material, for example a fluorescent material. Furthermore, the identifier may be designed with layers made of metal or ferrous metal or stripes made of metal or ferrous metal in or on the membrane, respectively.

[00012] Preferably the identifier is a machine-readable imprint. This is realized with a print in food approved color, preferably. Fluorescent materials like paper or print materials, whose optical properties change under the influence of temperature, are favored also. Preferably the print is a barcode, a logo or a repeat pattern.

[00013] According to a further subject matter of a preferred development of the present invention, the identifier is an electrically conductive section, which can be placed all over the portion capsule, but is localized on the side wall, the edge and/ or the floor preferably. The electrically conductive section, which is inserted into the coffee machine, can become part of an electric circuit, and causes therefore a measurable change, which leads to the identification of the respective portion capsule. In a further preferred embodiment, the identifier is a section made of a ferromagnetic material.

[00014] Another construction version favors a RFID chip being the identifier.

[00015] If the portion capsule is customized according to the invention, portion capsules that are not in line with the coffee machine will be prevented from inserting into the coffee machine. Furthermore, it is possible that the identifier allows to

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identify the portion capsule located in the brewing chamber in such a way that the production process of beverage or food may be controlled, for example by adjusting the temperature, the pressure and/or the amount of water.

[00016] According to a further subject matter of a preferred development of the present invention, the portion capsule's material is weakened in the bottom area caused by a selective material removal, for example by using a laser. The weakening is provided for piercing the portion capsules using a mandrel. This procedure is needed for the beverage's preparation. Since the material is weakened in the section, which is treated with a laser and is supposed to be pierced using the mandrel, the degree of necessary force for piercing the portion capsule is reduced. The mandrel of such coffee machines is usually equipped with a force limitation that limits the force, which is dedicated for pressing the mandrel against the portion capsule's bottom. This preparation avoids that portion capsules having no appropriate weakening can be used in such a coffee machine. Consequently, the weakening represents another kind of identifier.

[00017] According to a further subject matter of a preferred development of the present invention, the portion capsule has an edge region, which is preferably attached to the base element. Preferably, the edge is located opposite of the base element's bottom area. After the raw material has been filled in the portion capsule, a membrane can be attached to this edge region, for instance. Moreover, the edge can also designed for guiding the portion capsule into the chute in order to position the portion capsule in the brewing chamber properly. Simultaneously, it is possible to use the surface of the edge for stopping and/or sealing.

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[00018] Preferably provision is made for the portion capsule to have means for fit locking, friction locking and/or detection in the edge region. The means for fit locking and/or friction locking may be used to activate a complementary mechanism, which is located in the coffee machine, in order to allow inserting the portion capsule into the coffee machine and/or starting a sensor, like a gearwheel, that transmits a signal to a control unit depending on whether the portion capsule corresponds to the coffee machine or not. Alternatively, or additionally, a detector may identify the mean for fit locking, friction locking and/or detection in order to check that the portion capsule is suitable to the respective coffee machine.

[00019] Preferably, the means for fit locking, friction locking and/or detection is a gearwheel or a gearwheel segment, which are located, in particular, in the outer area of the edge region. The teeth of the gearwheel or the gearwheel segment may be shaped in any commonly used form, which is known, for example, by an expert from gear manufacturing. Preferably, it is provided that these teeth are triangular, rectangular, square, or wavy.

[00020] Preferably, there is a sealing surface, that is arranged on the interior side relative to the gearwheel or the gearwheel segment.

[00021] Another and preferred state-of-the-art technology is a portion capsule for producing a beverage, comprising a base element substantially designed frustoconically or cylindrically, having a cavity in which a beverage raw material is

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provided and which is closed by a membrane fastened to the base element with the base element having a wall region and the base element having a bottom area, which is preferably located opposite to the membrane, with the wall region having several grooves and the grooves which are located between membrane and bottom area covering the wall region along its height at least partially. The grooves may be also located in the edge region, in particular on the outer area of the edge region.

[00022] This portion capsule has the advantage over the portion capsule according to the state-of-the-art technology that, for instance, the grooves reinforce the base element's wall region. On the one side, these grooves make the portion capsule more stable towards mechanical forces and prevent the portion capsule from deformation and buckling, in particular. The arrangement of the grooves, which are located at the wall region, additionally improves the performance of the portion capsule while the extraction liquid flows through it in the brewing chamber, since the arrangement of the grooves, in particular those partially expending over the wall region between membrane and bottom area, increase quality and reliability of the extraction process significantly. According to the invention another advantage is that the base element's thickness can be reduced, because the use of grooves improves the physical stability. The production of the portion capsule is therefore much less expensive and more environmentally friendly. On the other side, the grooves reduce or avoid the contact between the portion capsule's wall region and the wall of the brewing chamber. As a result, ejecting or removing the portion capsule from the brewing chamber is made easier. Another advantage of using a plurality of grooves is that the stream of the extraction liquid, which flows along the base element in the cavity, can be optimized by

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choosing a grooves' structure that is able, for example, to generate on the one hand a better or stronger turbulence in the extraction liquid or on the other hand a more uniform (laminar) flow of the extraction liquid, in the wall region. The control of the liquid may be obtained by the structure of the grooves itself or by using simple means additionally. A stronger turbulence compared to the one known in the state-of-the-art has the advantage that no unintended and casual main streams are formed in the raw materials. Instead, the extraction liquid equally flows through the raw material in all of the volume. Thus, the extraction process is much more efficient and can be controlled more precisely and reproducibly.

[00023] In particular, the raw material may be coffee powder (especially ground roasted coffee), chocolate powder, milk powder, tea, or the like. Alternatively, it is conceivable that the raw material is a beverage's extract, such as instant coffee for example.

[00024] In particular, the grooves are recesses and bulges, which are preferably directed along a main extension and are preferably extended along the wall portion or the periphery of the edge region. More preferably, the grooves are formed as webs and/or notches. A gearwheel, for instance, may be obtained by the grooves. Therefore, the grooves are part of the base elements' wall, optionally located on the inner side facing to the cavity and/or on the outside facing away from the cavity.

[00025] According to a preferred embodiment of the present invention, it is provided that the grooves form an identifier that allows individualizing the portion

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capsule. In the context of this invention individualizing preferably means that the respective portion capsule can be assigned to a group of capsules that are suitable for the respective coffee machine or the machine producing a beverage. It is not necessary that the coffee machine or the device for producing a beverage is able to specify and/or identify the portion capsule. It is more important that the device for producing a beverage, in particular a coffee machine, associates the portion capsule with a group of portion capsules, which is appropriate for the respective device for producing a beverage, in particular a coffee machine. In particular, individualizing means that those portion capsules that are not appropriate for the coffee machine (or the device producing the beverage) cannot be inserted into and/or directly fall through the holder, which is designed for the portion capsules in the coffee machine (or the device producing the beverage), and/or the coffee machine (or the device producing the beverage) operates only with corresponding portion capsules ("proper portion capsule"). In particular, individualizing means that the coffee machine or the device producing the beverage will not operate properly in the intended use, if the used portion capsule is not customized according to the invention. Preferably, a sensor/detection system, attached to the coffee machine or the device producing the beverage, records the identifier and substantially compares it with a stored reference. In particular, it is possible that such an identification process is based on a mechanical fitting, especially a fitting of a gearwheel or of a contour comparable with a gearwheel, which is attached to the device producing the beverage or the coffee machine and interacts with the portion capsule. It is preferred that the device for producing the beverage or the coffee machine only will operate, if the identifier matches to the reference or the mechanical fittings match with each other. In this case the device for producing the beverage particularly starts to operate, especially activates a pressure or water pump. The

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mean for detection or mechanical fitting is preferably located in the region of the media chute or in the region of the device for producing the beverage. Alternatively, the identifier or the mechanical fitting may avoid that an unsuitable portion capsule is inserted into the device for producing the beverage. A portion capsule, which is designed in accordance with the invention, makes it possible that a portion capsule that is not designed for the device for producing a beverage cannot be inserted into it. Additionally, the identifier allows that the device for producing the beverage, especially the coffee machine, may specify the sort of the portion capsule and thereby control the production process of beverage and food by adapting, for example, the pressure, the temperature and/or the amount of water.

[00026] According to a further preferred embodiment of the present invention, it is provided that at least a part of the grooves and at least in a subarea parallel to the main plane of the membrane is gearwheel shaped.

[00027] According to the present invention, it is an advantage that it is possible to increase the stability of the portion capsule's wall region, to realize improved turbulences of the extraction liquid and thereby to improve the extraction's process under the same conditions, for example, such as material thickness and the like. Another advantage is that it is easy to generate a mechanical identifier or a mechanical fitting that matches with a fitting tool that belongs to the device for producing a beverage. According to the invention it is an further advantage that, for example, a gearwheel, which is attached to the device for producing a beverage and is, for example, located in the region of the media chute or similar, can possibly interacts with the gearwheel's contour of the portion capsule. In this

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way it is possible to generate a mechanical fitting that allow to individualize the portion capsule as a proper one and/or to specify the sort of portion capsule and/or to rotate the portion capsule about an axis of rotation, that is perpendicular to the membrane's main plane, by using the gearwheel's arrangement. Such an embodiment of the invention makes it possible that the portion capsule is always opened with the device for producing a beverage on the same spot (with respect to its angular position) and therefore the raw material is extracted on the same manner. Moreover, the grooves prevent the portion capsule from being inserted into the coffee machine.

[00028] In a preferred version of the invention, it is provided that there is a flange/edge region being averted from the bottom region, for fixing the membrane to the base element, where in the wall region between flange/edge region and bottom region preferably has a border and the grooves are being preferably extended to this border.

[00029] Because of this it is another advantage according to the invention that on the one hand the wall region can be constructed in a stable and reinforced manner and on the other hand the gearwheel shaped contour of the grooves, located at the wall region, is able to absorb a relative high load. With that it is possible that the portion capsule can be rotated easily and without any damaging of the portion capsule within the device for producing a beverage.

[00030] Preferably, the base element's diameter is enlarged in the border's region compared to the wall region, which range from the border to the bottom region.

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[00031] This gives rise to the advantageous possibility to stack portion capsule or portion capsules' base elements easily and robustly.

[00032] Moreover, it is preferred that at least a part of the grooves are gearwheel shaped and at least a plane, which is at least partially gearwheel shaped, is parallel to the membrane in such a way that the gearwheel shaped contour expands over the borders or the flange/edge region.

[00033] Further preferred versions of the present invention relate to portion capsules that implement one or more of the following characteristics:

- the base element tapers in the direction of the flange in the border's region,
- the grooves directed toward the bottom region expand over the border's region,
- the grooves approximately cover 20% -80%, preferably 40% - 60% of the wall region, which is placed between the border and the bottom region,
- the grooves are constructed in such a way that the wall region is reinforced and/or the grooves causes an extraction liquid's turbulence in the cavity.

[00034] Other preferred versions of the present invention relate to portion capsules that are manufactured in such a way that the ratio of the diameter of that wall region of the base element which adjoins the flange to the diameter of the flange is between 0.85 and 0.89, and in particular substantially 0.87.

[00035] In a preferred version, the wall region's diameter, which is adjacent to

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the flange, is 39 millimeters and the flange's diameter is 45 millimeters. Another advantageous version of the invention prefers a base element having a thicker wall region in the border's region compared to the wall region between bottom region and flange. Since the portion capsule's design, which contains grooves in the wall region, improves its stability, it is possible to save material by manufacturing the portion capsule and therefore to reduce cost and energy required for manufacturing the portion capsules.

[00036] According to the invention it is further provided that a filter element is arranged into the cavity. Such a filter element divides the cavity into a first region for accommodating the beverage raw material and into a second region for accommodating a beverage extract. In particular, it is provided that the filter element is made of a non-woven material.

[00037] According to a further subject matter or a preferred development of the present invention the portion capsule according to the invention is intended for the preparation of a hot beverage. In the following the invention is explained based on the Figures 1 - 22. These explanations do not restrict the general idea of the invention.

Brief Description of the Drawings

[00038] **Figures 1A and 1B** show a portion capsule containing sections that differs optically.

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[00039] **Figures 2A, and 2B** show a portion capsule containing a barcode.

[00040] **Figures 3A and 3B** show ~~**Figure 3** shows~~ a portion capsule with recesses and bulges.

[00041] **Figure 4** shows a portion capsule containing sections that differs optically.

[00042] **Figure 5** shows a portion capsule with a key function.

[00043] **Figure 6** shows a portion capsule's wall that is electrically conductive.

[00044] **Figure** 7 shows a portion capsule's wall containing sections that differs optically.

[00045] **Figure 8** shows an enlarged pot construction of the portion capsule's wall.

[00046] **Figure 9** shows an edge region that is electrically conductive.

[00047] **Figure 10** shows a portion capsule containing a bottom that is electrically conductive.

[00048] **Figure 11** shows an embodiment containing a layer that can be detected by a

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metal detector.

[00049] **Figure 12** shows a metallic strainer.

[00050] **Figure 13** shows a portion capsule containing a ferromagnetic section.

[00051] **Figure 14** shows a portion capsule containing a barcode.

[00052] **Figure 15** shows a portion capsule containing a section, which is electrically conductive, in the wall.

[00053] **Figures 16A and 16B** show a portion capsule with a gearwheel placed in the brewing chamber.

[00054] **Figures 17A, 17B, and 17C** show different embodiments of the portion capsule according to Figures 16A and 16B.

[00055] **Figure 18** shows the portion capsule according to the Figures 16 A and 16B and Figures 17 a-c, when the portion capsule is fit locking with a gearwheel.

[00056] **Figures 19 and 20** show a schematic view of a portion capsule according to an embodiment of the presented invention.

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[00057] **Figures 21 and 22** show two sectional views of the portion capsule according to an embodiment of the presented invention.

Detailed Description

[00058] **Figures 1A and 1B** show a portion capsule 1 comprising a base element 2 that has a wall region 2.1 and a bottom area 2.2. The wall region 2.1 and the bottom area 2.2 define a cavity 3, which may include the raw material and perhaps a built-in element. After filling, the cavity 3 is sealed by a membrane 4, which is preferably attached to the edge region 2.4 of the base element using seal or glue. This portion capsule can be inserted into a brewing chamber 12, with a liquid, in particular water, flowing through it. During this process, the raw material is extracted or dissolved and therefore the beverage is produced. According to the invention the portion capsule has only one identifier that allows to determine whether the respective portion capsule goes with the coffee machine's brewing chamber 12 and the parameters for processing are chosen properly. If it is not the case, significant security issues arise. Inserting the wrong portion capsule, for example, endangers the brewing chamber's tightness. In this case hot water can be discharged under high pressure and therefore compromise the user's safety. Otherwise, it is also possible that inserting the wrong portion capsule damages the coffee machine. In this example the identifier is represented by several raised areas 8, which differ in reflection properties from the sections between the raised areas. As shown by the arrows the bulges are passed by a mean for detection 13 (here: an optical detector) that is able to differentiate between the unequal sections 5, 6 having different optical properties such as, for example, reflection. Switching between the different sections or

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the number of bulges represents the identifier. After the identifier has been read out the identifier is compared to a stored reference. If the identifier agrees with the reference, the coffee machine will start operating. Particularly the pump, which is for example responsible for pushing hot water through the brewing chamber, will not start operating, if the identifier does not agree with the reference.

[00059] All the remarks concerning the identifier apply to all the examples.

[00060] **Figures 2A and 2B** show another embodiment of the portion capsule 1 according to the invention. The portion capsule 1 comprises a base element 2 that has a wall region 2.1 and a bottom area 2.2. Here the portion capsule 1 has a barcode 50 placed in the area of the membrane's 4 top surface. This barcode may be printed by material removal or may be generated by a medium that is integrated in the foil and can be detected optically such as a fluorescence agent. Alternatively, metal rings may be part of the foil or attached to the foil. The barcode's section may be made of a ferromagnetic material. As shown by the arrow 15 the barcode 50 alternatively can be attached to the base element's edge region being averted from the membrane 4. Such a barcode is read out by a detector 13 placed, for example, in the media chute. The barcode represents the identifier according to invention.

[00061] **Figures 3A and 3B** show another embodiment of the portion capsule 1 according to the invention. In the present case the identifier comprises recesses and bulges 7, 8, which result from material removal or reshaping the portion capsule as shown here by the example of the portion capsule's wall 2.1. In the present case, recesses and bulges

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interact with a means for detection 13, which operates like a key, wherein the coffee machine only start operating, when all elements 14 are placed in the respective recess 7. Therefore, an electric circuit may be changed or especially closed.

[00062] **Figure 4** shows an embodiment of the portion capsule being substantially identical to the embodiment illustrated in Figure 1. As an alternative version of the invention, the figure additionally shows that the unequal sections 5, 6 differing in terms of optical properties can be attached to the cover foil, for example in the form of a barcode.

[00063] **Figure 5** shows an embodiment of the portion capsule being substantially identical to the embodiment illustrated in Figure 3 that includes recesses 7 and bulges 8. Again, the recesses represent the key bit. The coffee machine only will start operating, if the recesses interact with the corresponding bulges and therefore an electric circuit is changed respectively. The placement of such a system is not restricted to the brewing chamber. For instance, the system may be placed in the portion capsule's media chute.

[00064] **Figure 6** shows a version of the invention that includes a base element 2 and an electric material forming a surrounding ring 2.3, which preferably has a raised form. The electrically conductive material is scanned by means for detection 13 having electric sliding contacts, which are placed in the media chute and form electric contacts of an electric circuit, while the portion capsule is inserted.

[00065] **Figure** 7 shows an embodiment of the portion capsule being substantially identical to the embodiment illustrated in Figure 6, in which it is provided that the ring

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area has reflective 21 or mat 22 sections, for example in form of a covering, and allows a read-out by means for detection 13 for optical detection, which are placed in the media chute and are part of a control current, while the portion capsule is inserted.

[00066] **Figure 8** shows a relative broad and raised ring 2.3 which represents the identifier. The media chute is equipped with a corresponding vacancy that tests whether the portion capsule has the proper identifier. The broad ring is scanned, for example, by means for detection 13 having mechanical sensors, which are placed in the media chute and close the contacts of an electric circuit, while the portions capsule is inserted.

[00067] **Figure 9** shows another embodiment of the portion capsule according to the invention. In the present case an electrically conductive coat 10 is integrated in the edge region's back and is scanned by electric sliding contacts, which are placed in the media chute and form electric contacts of an electric circuit, while the portion capsule is inserted.

[00068] **Figure 10** shows another embodiment of the portion capsule according to the invention. In the present case the portion capsule has an electrically conductive coat 10 at the bottom area 2.2 such as a conductive varnish layer or an aluminum foil. The coat is scanned by means for detection 13 having electric sliding contacts, which form electric contacts of an electric circuit, while the portion capsule is inserted.

[00069] **Figure 11** illustrates a version of the portion capsule having also an electrically conductive coat 10 that is placed on its bottom 2.2 and is identified by a means

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for detection 13 having a metal sensor, which is placed in the chute and, for example, detects inductively, while the portion capsule is inserted.

[00070] The embodiment of the invention shown in **Figure 12** has a built-in element made of metal (here a strainer 19) that is recognized as identifier by a means for detection 13 having a metal detector.

[00071] The version of the invention shown in **Figure 13** includes a ferromagnetic material 20 placed at the portion capsule' bottom. The identifier is scanned, by means for detection 13 for example, by a magnet, which is placed in the chute, while the portion capsule is inserted. The ferromagnetic material acts as identifier.

[00072] **Figure 14** shows another embodiment which includes a barcode placed in the region of the cover foil. The portion capsule includes a flange 17.

[00073] According to the embodiment shown in **Figure 15** a metallic ring 11 is integrated in the wall region 2.1 and closes means for detection 13 having an electric circuit placed in region of the brewing chamber.

[00074] **Figures 16A and 16B** show another embodiment of the portion capsule 1 according to the invention. The illustrated portion capsule features a base element 2 that is basically conical- shaped in the present case and has a bottom region 2.2 and a wall region 2.1. It is provided that the base element contains the raw material and, if necessary, build-in elements like a filter as illustrated here. The expert knows that the build-in

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element may also include other build-in elements. A flange 17 /edge region 2.4, which is preferably circular and, for example, may be used for sealing a cover foil 4 to it, is attached to the end of the base element, which is placed opposite to the bottom. The flange/edge region has means for fit locking, friction locking and/or detection 2.4.2 in the outer area (outer circumference). As especially shown in the Figures 17a - 17c the means for fit locking, friction locking and/or detection 2.4.2 is, in the present case, a gearwheel that is formed by several recesses/bulges evenly arranged in the edge region. Preferably, it is provided that the edge region has a sealing surface 2.4.1, which sealingly interacts with the seal 31 attached to the brewing chamber 12, on the interior side of the gearwheel. The sealing 31 makes sure that the water coming from a water inlet 28 flows through the portion capsule by passing an opening, which has been made by a mandrel 29, than around it.

[00075] **Figures 17A, 17B, and 17C** show different embodiments of the means for fit locking, friction locking and/or detection 2.4.2. According to the version shown in Figure 17A, the gearwheel has forty-five teeth. According to the version shown in Figure 17B or 17C, the gearwheel has twenty-two or twenty-nine teeth, respectively. The expert knows that the manufactured teeth can be shaped arbitrarily. All Figures 17A, 17B, and 17C demonstrate how the portion capsule 1 can be held by a part of the brewing chamber 12 using two holding arms 30. The holding arms interact with the means for fit locking, friction locking and/or detection 2.4.2. If they are not available, the holding arms will not hold the portion capsule and the portion capsule will not be inserted into the brewing chamber and will fall through it into a dropping box instead. The portion capsule has a base element 2, a wall region 2.1, a bottom area 2.2, a sealing surface 2.4.1, and an edge

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region 2.4.

[00076] **Figure 18** shows the means for fit locking, friction locking and/or detection 2.4.2 along with mean for fit locking 24, which is attached to the coffee machine and is represented by a pinion here. It is provided that the mean for fit locking 24 is placed in the media chute or insertion shaft 26 of an insertion shaft housing 23 having a port for inserting the portion capsule in the coffee machine. The distance between the inner wall 25 of the portion capsule 1 and the mean for fit locking 24 represented by the pinion 24 are designed in such a way that the portion capsule only will pass the port, if the means for fit locking, friction locking and/or detection 2.4.2 is formed complementary to the teeth of the mean for fit locking 24 represented by the pinion. Only in this case the portion capsule rotates the mean for fit locking 24 represented by the pinion 24 while it falls. Both rotating and falling are represented by arrows in the figure. The portion capsule needs the rotation for passing the media chute's port and falling in the intended position afterwards. If the portion capsule has no or wrong mean of fit locking, it will be impossible to place the portion capsule by passing the media chute in the intended position. Additionally, or alternatively, it is provided that the mean for fit locking 24 represented by the pinion has a pick-up that detects the rotary movement and transmits it to a control unit. If the rotation at least corresponds a defined rotating element, the control unit will activate, for example, the brewing unit. The expert knows that the portion capsule's border may include means for friction locking that interacts with a mean, for example an edge, and shift it in such a way that the shift is detected and therefore the brewing chamber is activated. The portion capsule 1 has a cover foil 4 and a sealing surface 2.4.1.

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[00077] The expert moreover knows that a sensor, being for example a camera, which detects the form of the means for fit locking, friction locking and/or detection 2.4.2, may be installed in the media chute. In the present case the form and/or the distance between the teeth may be detected. If the proper portion capsule was inserted, a resulting signal could be transmitted to a control unit, which activates the brewing chamber.

[00078] **Figure 19** schematically shows a view of another portion capsule's version according to an embodiment of the present invention. **Figure 20** illustrates the same portion capsule from a different point of view schematically. Figure 19 shows the front view of the portion capsule. Figure 20 shows the portion capsule viewed from an angle below. In all figures the portion capsule is labeled with the reference sign 1. The portion capsule substantially has a frustoconically shaped base element 2, which is formed similar to a pot and encloses a cavity 3. The cavity 3 is sealed by a membrane 4. Since the viewing direction of Figure 19 is essentially parallel to the plane, in which the membrane is located, the membrane is at the upper edge of the portion capsule. In particular, the base element 2 comprises a soft, semi-rigid or rigid plastic material which is deep-drown, preferably. The membrane comprises a foil made of plastic material or aluminum. Preferably the base element has a circumferential mounting flange 17 in the region of the membrane, with the membrane and the mounting flange 17 being firmly bonded, in particular by welding or gluing. Preferably a filter element, which is not specifically depicted in the figures, is placed within the base element 2. For instance, the filter element is made of thermoplastic resin such as, for example, polypropylene. The filter element could also be made of a non-woven material such as, for example, thermoplastic resin. Preferably the filter element divides the cavity 3 in two sections. It is provided that the

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first section can be filled with a raw material and the second section can be filled with and particularly collect a beverage's extract, which is not shown, during the extractions process. Both sections are not illustrated individually.

[00079] The portion capsule is intended for inserting into a brewing chamber or a device for producing a beverage, which is not shown here. In particular such a device for producing a beverage is a coffee machine. The device for producing a beverage could be also a machine that produces a tea drink, a chocolate drink or any other beverage. Preferably an extraction liquid, which is particularly water or hot water, is brought under high pressure into the brewing chamber of the device for producing a beverage. The extraction liquid interacts with the raw material of the beverage in such a way that an extract of a beverage or a beverage is generated. In particular the filter element is utilized as a strainer for the extract of a beverage.

[00080] According to the invention, the base element 2 has a wall region 2.1 and a bottom area 2.2. The wall region 2.1 basically ranges from the flange 17 to the bottom region 2.2. Several grooves 32 are placed in the wall region. In particular these grooves are keyways that are integrated in the wall region 2.1 and are facing the cavity 3 and range from the flange 17 to the bottom region 2.2 (i.e. they run perpendicular according to Figure 19). According to the invention provision is made for the grooves 32 to be extended vertically across the wall region, i.e. they run straight from the flange 17 to the bottom region 2.2, in which it is not necessary that they are extended over the whole length. The grooves are formed according to the invention in such a way that the wall region is reinforced or stiffened due to the grooves 32. Moreover, the plurality of the

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grooves 32, which are distributed over the wall region 2.1, realize an adhesion between wall region 2.1 and the brewing chamber's wall of the device for producing a beverage after the extraction process. This makes it easier to eject the portion capsule from the brewing chamber automatically. The portion capsule's version represented in Figure 19 comprises a circumferential border 16 that is placed at the wall region 2.1 ranging from the flange 17 to the bottom area 2.2, namely adjacent to the flange 17 facing towards the bottom area 2.2. The border 16 has an enlarged diameter (parallel to the membrane 4) compared to the wall region's ranging from the border 16 to the bottom area 2.2. It is provided that the border's contour 16 is designed in such a manner that the border's diameter tapers towards the flange 17.

[00081] It is provided according to the portion capsule's embodiment, which is represented in Figure 19 and is in accordance with the invention, that the grooves 32 are placed in the border's region in the first part, partially range from the border 16 to the bottom area 2.2 across the wall region 2.1, in the second part and then finally end. All in all, the grooves cover, for example, around 50 % of the extension of the wall region 2.1, which ranges from the flange 17 to the bottom area 2.2, wherein one-third of the grooves' extension is placed in the border's region and two-thirds of the grooves' extension is placed in the remaining wall region 2.1 that range from the border 16 to the bottom area 2.2.

[00082] A portion capsule 1 according to the invention is shown as sectional view along the portion capsule's extension regarding its height in **Figure 21,** i.e. the section's plane is perpendicular to the membrane's main plane. **Figure 22** also shows

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a portion capsule according to the invention in a sectional view portraying the sectional plane, which is parallel to the membrane's main plane. It is noticeable that the interior of the portion capsule's cavity is shown in Figure 21. The portion capsule's material or the base element's material is so thin that the implementation of grooves 32 at the exterior shown in Figure 19 leads to corresponding convexities 34 and impressions at the interior. Figure 22 particularly illustrates the gearwheel shaped contour 36 resulting from insertion of grooves in the portion capsule's 1 wall region.

List of reference numerals

1	portion capsule
2	base element
2.1	wall region
2.2	bottom area
2.3	ring
2.4	edge region
2.4.1	sealing surface
2.4.2	means for friction locking and/or detection
3	cavity
4	membrane, cover foil
5,6	unequal sections
7	recess
8	raised area, bulge
10	electrically conductive coat
11	metallic ring
12	brewing chamber
13	detector, mean for detection
14	beam
16	border
17	flange
20	ferromagnetic material

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21	reflective section
22	mat section
23	insertion shaft housing
24	mean for fit locking
25	inner wall
26	insertion shaft
28	water inlet
29	mandrel
30	holding arms
31	seal
32	grooves
34	convexities
36	gearwheel shaped contour

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Nespresso USA, Inc. Ex. 1002
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Electronic Acknowledgement Receipt

EFS ID:	44653607
Application Number:	17547363
International Application Number:	
Confirmation Number:	6426
Title of Invention:	PORTION CAPSULE HAVING AN IDENTIFIER
First Named Inventor/Applicant Name:	Marc Krüger
Customer Number:	25215
Filer:	Paul J. Palinski/BECKY BALLARD
Filer Authorized By:	Paul J. Palinski
Attorney Docket Number:	1859.029USC12
Receipt Date:	03-JAN-2022
Filing Date:	10-DEC-2021
Time Stamp:	15:42:45
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	ResponseToCorrectApplicationPapers_1859_029USC12.pdf	385255 7b7f5140246288f14a5a544b611ced41764e004a	no	6

Warnings:

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Information:					
2	Specification	SubstituteSpecification_CleanCopy_1859_029USC12.pdf	237495 1ee6adde04c04e17cec26e3d58a8256e30263656	no	28
Warnings:					
Information:					
3	Specification	SubstituteSpecification_MarkedUpCopy_1859_029USC12.pdf	239504 2867c813b3c5212bbb92bf07005d65dd9b177bfc	no	28
Warnings:					
Information:					
			Total Files Size (in bytes):	862254	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Marc KRÜGER

Group Art Unit: TBA

Serial No.: 17/547,363

Examiner: TBA

Filed: December 10, 2021

Confirmation No: 6426

For: PORTION CAPSULE HAVING AN IDENTIFIER

Attorney Docket No.: 1859.029USC12 (KRU0022-WO-US-T13)

RESPONSE TO NOTICE TO FILE CORRECTED APPLICATION PAPERS

In the Notice to File Corrected Application Papers mailed on December 22, 2021 ("Notice"), the Office alleges the application is informal. Without conceding to the validity of the allegations listed on the Notice, and in the interest of expediting examination, Applicant includes herewith a Substitute Specification (Marked Copy and a corresponding Clean Copy). No new matter has been added. The Substitute Specification includes an amendment to paragraph [0040], to be consistent with the figure numbering in the drawings (Figure 3 vs. Figures 3A and 3B). No new matter has been added. Applicant respectfully requests the Office enter the Substitute Specification, and then prepare this application for examination and allowance.

If for some reason Applicant has not requested a sufficient extension and/or has not paid a sufficient fee for this response and/or for the extension necessary to prevent the abandonment of this application, please consider this as a request for an extension for the required time period and/or authorization to charge our Deposit Account No. 50-1097 for any fee which may be due.

Respectfully submitted,

Date: January 03, 2022

/Paul J. Palinski/

Paul J. Palinski, Reg. No. 71,080
The Dobrusin Law Firm, P.C.
29 W. Lawrence St., Suite 210
Pontiac, Michigan 48342
(248) 292-2920

Customer No. 25215

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/547,363	12/10/2021	Marc Krüger	1859.029USC12

CONFIRMATION NO. 6426

25215
The Dobrusin Law Firm P.C.
29 W. Lawrence Street
Suite 210
Pontiac, MI 48342

FORMALITIES LETTER

OC000000130611758

Date Mailed: 12/22/2021

NOTICE TO FILE CORRECTED APPLICATION PAPERS

Filing Date Granted

An application number and filing date have been accorded to this application. The application is informal since it does not comply with the regulations for the reason(s) indicated below. Applicant is given **TWO MONTHS** from the date of this Notice within which to correct the informalities indicated below. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

The required item(s) identified below must be timely submitted to avoid abandonment:

- Replacement drawings in compliance with 37 CFR 1.84 and 37 CFR 1.121(d) are required. The drawings submitted are not acceptable because:
  - More than one figure is present and one or more figure appears to be unnumbered or misnumbered in comparison to the brief description of the figures. See Figure(s) 3. The figures must be labeled "Fig." with a consecutive Arabic numeral (1, 2, etc.) or an Arabic numeral and capital letter in the English alphabet (A, B, etc.) and correspond with a brief description having the same figure number. See 37 CFR 1.84(u)(1).
    (1) To correct the figure numbering, replacement figures must be submitted.
    (2) To add a brief description of an unnumbered figure, or correct the reference in the specification to the figures, a proper substitute specification in compliance with 37 CFR 1.121(b)(3) and 1.125, providing a brief description of each drawing figure presented, added or amended to correspond to the corrected numbering of the figures, must be submitted. See also 37 CFR 1.77(b)(9).
  - The figure labeling in the application does not consist of proper figure labeling. Each figure must be labeled "Fig." with a consecutive Arabic numeral (1, 2, etc.) or an Arabic numeral and capital letter in the English alphabet (A, B, etc.), beginning with Figure 1 (or Figure 1A). See 37 CFR 1.84(u)(1). When properly labeled, each brief description of the figures contained in the specification must correspond to a properly labeled figure.
    - To correct the figure numbering, replacement figures must be submitted.
    - To correct the reference in the specification, a proper substitute specification in compliance with 37 CFR 1.121(b)(3) and 1.125, providing a brief description of each drawing figure presented, added or amended to correspond to the corrected numbering of the figures, must be submitted. See also 37 CFR 1.77(b)(9).
  - The application contains a section in the specification containing the brief description of the figures, but is missing the description of Figure(s) **3A, 3B#** as required by 37 CFR 1.74 and 37 CFR 1.77(b)(9). A brief description of each drawing figure presented is required to satisfy this requirement.

- To add a brief description of a figure, a proper substitute specification in compliance with 37 CFR 1.121(b)(3) and 1.125, providing a brief description of each drawing figure presented, must be submitted. See also 37 CFR 1.77(b)(9).

Note: If applicant wishes to delete the undescribed figure, replacement sheets must be submitted to renumber the figure(s) consecutively.

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

Replies must be received in the USPTO within the set time period or must include a proper Certificate of Mailing or Transmission under 37 CFR 1.8 with a mailing or transmission date within the set time period. For more information and a suggested format, see Form PTO/SB/92 and MPEP 512.

Replies should be mailed to:

Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web, including a copy of this Notice and selecting the document description "Applicant response to Pre-Exam Formalities Notice". https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html

For more information about EFS-Web please call the USPTO Electronic Business Center at 1-866-217-9197 or visit our website at http://www.uspto.gov/ebc.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/afessehaye/

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
17/547,363	12/10/2021		1820	1859.029USC12	20	2

CONFIRMATION NO. 6426

FILING RECEIPT

25215
The Dobrusin Law Firm P.C.
29 W. Lawrence Street
Suite 210
Pontiac, MI 48342

OC000000130611757

Date Mailed: 12/22/2021

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

Marc Krüger, Bergisch Gladbach, GERMANY;

Applicant(s)

K-FEE SYSTEM GMBH, Bergisch Gladbach, GERMANY;

Power of Attorney: The patent practitioners associated with Customer Number 25215

Domestic Priority data as claimed by applicant

This application is a CON of 15/646,980 07/11/2017
which is a DIV of 15/211,823 07/15/2016 ABN
which is a DIV of 13/744,623 01/18/2013 ABN
which is a CON of PCT/EP2011/003677 07/22/2011

Foreign Applications (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.)
GERMANY 10 2011 010 534.4 02/07/2011 No Access Code Provided
GERMANY 10 2010 044 251.8 09/02/2010 No Access Code Provided
GERMANY 10 2010 031 988.0 07/22/2010 No Access Code Provided

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

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If Required, Foreign Filing License Granted: 12/21/2021
The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 17/547,363**
Projected Publication Date: To Be Determined - pending completion of Corrected Papers
Non-Publication Request: No
Early Publication Request: No
Title

PORTION CAPSULE HAVING AN IDENTIFIER

Preliminary Class

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

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Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
17/547,363	12/10/2021		1820	1859.029USC12	20	2

CONFIRMATION NO. 6426

UPDATED FILING RECEIPT

25215
The Dobrusin Law Firm P.C.
29 W. Lawrence Street
Suite 210
Pontiac, MI 48342

OC000000130877785

Date Mailed: 01/05/2022

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

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Marc Krüger, Bergisch Gladbach, GERMANY;

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K-FEE SYSTEM GMBH, Bergisch Gladbach, GERMANY;

Power of Attorney: The patent practitioners associated with Customer Number 25215

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which is a DIV of 15/211,823 07/15/2016 ABN
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GERMANY 10 2011 010 534.4 02/07/2011 No Access Code Provided
GERMANY 10 2010 044 251.8 09/02/2010 No Access Code Provided
GERMANY 10 2010 031 988.0 07/22/2010 No Access Code Provided

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

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If Required, Foreign Filing License Granted: 12/21/2021
The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 17/547,363**
Projected Publication Date: 04/14/2022
Non-Publication Request: No
Early Publication Request: No
Title

PORTION CAPSULE HAVING AN IDENTIFIER

Preliminary Class

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

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LICENSE FOR FOREIGN FILING UNDER

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Title 37, Code of Federal Regulations, 5.11 & 5.15

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The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

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The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit http://www.SelectUSA.gov or call +1-202-482-6800.

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Nespresso USA, Inc. Ex. 1002
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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 17/547,363

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	320
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	700
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	800
TOTAL CLAIMS (37 CFR 1.16(i))	20 minus 20 =	*			OR	x 100 =	0.00
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2 minus 3 =	*				x 480 =	0.00
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						0.00
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0.00
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	1820

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)		RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/547,363	12/10/2021	Marc Krüger	1859.029USC12	6426

25215 7590 02/02/2022

The Dobrusin Law Firm P.C.
29 W. Lawrence Street
Suite 210
Pontiac, MI 48342

EXAMINER	
CENTRAL, DOCKET	

ART UNIT	PAPER NUMBER
OPAP	

NOTIFICATION DATE	DELIVERY MODE
02/02/2022	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

dobrusin_PAIR@firsttofile.com
patmail@patentco.com
rmasquelier@patentco.com

Decision Granting Request for Prioritized Examination (Track I)	**Application No.** 17/547,363	**Applicant(s)** Krüger, Marc	
	Examiner ANGELA E WALKER	**Art Unit** OPET	**AIA (FITF) Status** No

1. THE REQUEST FILED 10 December 2021 IS **GRANTED** .

The above-identified application has met the requirements for prioritized examination

A. ☑ for an original nonprovisional application (Track I).
B. ☐ for an application undergoing continued examination (RCE).

2. **The above-identified application will undergo prioritized examination**. The application will be accorded special status throughout its entire course of prosecution until one of the following occurs:

A. filing a **petition for extension of time** to extend the time period for filing a reply;

B. filing an **amendment to amend the application to contain more than four independent claims, more than thirty total claims** , or a multiple dependent claim;

C. filing a **request for continued examination** ;

D. filing a notice of appeal;

E. filing a request for suspension of action;

F. mailing of a notice of allowance;

G. mailing of a final Office action;

H. completion of examination as defined in 37 CFR 41.102; or

I. abandonment of the application.

Telephone inquiries with regard to this decision should be directed to ANGELA WALKER at (571) 272-1058. In his/her absence, calls may be directed to Petition Help Desk at (571) 272-3282.

/ANGELA E WALKER/ Paralegal Specialist, OPET	

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/547,363	12/10/2021	Marc Krüger	1859.029USC12	6426

25215 7590 04/04/2022

The Dobrusin Law Firm P.C.
29 W. Lawrence Street
Suite 210
Pontiac, MI 48342

EXAMINER	
CHOU, JIMMY	

ART UNIT	PAPER NUMBER
3761	

NOTIFICATION DATE	DELIVERY MODE
04/04/2022	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

dobrusin_PAIR@firsttofile.com
patmail@patentco.com
rmasquelier@patentco.com

Office Action Summary	Application No. 17/547,363	Applicant(s) Krüger, Marc	
	Examiner JIMMY CHOU	Art Unit 3761	AIA (FITF) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 12/10/2021.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 10-29 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 10-29 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☑ The drawing(s) filed on 12/10/2022 is/are: a)☑ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☑ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☑ All b)☐ Some** c)☐ None of the:

1.☑ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☑ Other: EAST search history is attached.

DETAILED ACTION

Notice of Pre-AIA or AIA Status

The present application is being examined under the pre-AIA first to invent provisions.

Priority

Acknowledgment is made of applicant's claim for foreign priority based on applications **DE 19 2010 031 988.0, DE 10 2010 044 251.8, and DE 16 2011 010 5384.4** filed in Germany on 22 July 2010, 02 September 2010, and 07 February 2011 respectively, the official translations of which were received 20 December 2021.

Under 35 U.S.C. 119(a) or (e), the claims in a U.S. application are entitled to the benefit of a foreign priority date or the filing date of a provisional application if the corresponding foreign application or provisional application supports the claims in the manner required by 35 U.S.C. 112(a) or pre-AIA 35 U.S.C. 112, first paragraph.

This is to say that current application must be an application for a patent for an invention which is also disclosed in the prior application(s), foreign or domestic. The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of 35 U.S.C. 112(a) or the first paragraph of pre-AIA 35 U.S.C. 112, except for the best mode requirement. See Transco Products, Inc. v. Performance Contracting, Inc., 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994)

The disclosure of the prior-filed applications, Applications No. **DE 19 2010 031 988.0, DE 10 2010 044 251.8, and DE 16 2011 010 5384.4**, as well as US Applications **13/744,623, 15/211823, and 15/646,980** fail to provide adequate support or enablement

in the manner provided by 35 U.S.C. 112(a) or pre-AIA 35 U.S.C. 112, first paragraph for one or more claims of this application. Claims **10-29** are directed to a beverage system. However, there is no disclosure of the below claim limitations in the above identified applications to teach or suggest the combination of features of independent claims such as (1) chamfered mandrel that pierces the cover at the location that is offset from the central longitudinal axis, (2) the cover is bowed outwardly, (3) the capsule receptacle defined by a base portion and an annular portion, (4) an optical sensor/detector positioned outside of the base portion of the wall structure of the capsule holder and below the annular portion, which directs a beam through a portion of the wall structure to read the identifier on the single-serve capsule and (5) a seal that is at least partially seated in the groove and configured to bear against a top side of the cover in a region between the peripheral edge of the cover and the region of the cover that is pierced by the chamfered mandrel, found in any of applicant's prior filed applications. Therefore for claims in the current application are not entitled to the benefit of the claimed priority dates, foreign or domestic and the priority date is the filing date of the application, that is **10 December 2021**.

Discussed with the attorney of record with respect to DE '251.8. However, examiner noted that the specification of DE '251.8 recites "the invention will be explained hereinbelow with reference to figures 1-18. These explanations do not have a limiting effect on the general concept of the invention" on page 6 at lines 23-26 and "claims 8-17" on pages 18-19 do not suggest the particular embodiment as required by the instant claim 10. In addition, as noted in drawing objection below, there is no single

embodiment or sufficient disclosure to discuss as to how to reconstruct drawings of DE '251.8 into the claim features. Clarification is requested.

This application has been filed as a divisional application. The application repeats a substantial portion of prior **Applications No. 15/646980, 15/211823, 13/744623 filed on 11 July 2017, 15 July 2016 and 18 January 2013** and respectively but, by way of the claims adds significant disclosure not presented in the prior applications. Because this application names the inventor or at least one joint inventor named in the prior application, it should constitute a continuation-in-part of the prior application and not a divisional application. Appropriate correction is required.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, Claims 10 and 21 recite "**(1) chamfered mandrel that pierces the cover at the location that is offset from the central longitudinal axis, (2) the cover is bowed outwardly, (3) the capsule receptacle defined by a base portion and an annular portion, (4) an optical sensor/detector positioned outside of the base portion of the wall structure of the capsule holder and below the annular portion, which directs a beam through a portion of the wall structure to read the identifier on the single-serve capsule and (5) a seal that is at least partially seated in the groove and configured to bear against a top side of the cover in a region between the peripheral edge of the cover and the region of the cover that is pierced by the chamfered mandrel**" (However, there is no single embodiment shows the combination

of the above claim limitations) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of 35 U.S.C. 112(b):
(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10-29 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor (or for applications subject to pre-AIA 35 U.S.C. 112, the applicant), regards as the invention.

Claim 10 recites "the capsule holder" at line 25. There is insufficient antecedent basis for this limitation in the claim. Examiner suggest to change the above claim limitation to "the capsule receptacle".

Claim 10 recites "the portion capsule" at line 28. There is insufficient antecedent basis for this limitation in the claim. Examiner suggest to change the above claim limitation to "the single-serve capsule".

Claim 21 recites "the capsule holder" at line 27. There is insufficient antecedent basis for this limitation in the claim. Examiner suggest to change the above claim limitation to "the capsule receptacle".

Claim 21 recites "the portion capsule" at line 30. There is insufficient antecedent basis for this limitation in the claim. Examiner suggest to change the above claim limitation to "the single-serve capsule".

Reason for Allowance

The following is a statement of reasons for the indication of allowable subject matter: The closest prior art of record are Jarisch et al. (US 2013/0064937) and Schmed et al. (US 7,856,920). The prior art of record references neither discloses, or suggests, in combination with the other limitations of independent claim 1, the detail

structures of the single serve capsule in relation to detail structures of the beverage machine comprising a groove that is laterally offset from the chamfered mandrel; and a seal that is at least partially seated in the groove and configured to bear against a top side of the cover in a region between the peripheral edge of the cover and the region of the cover that is pierced by the chamfered mandrel.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JIMMY CHOU whose telephone number is (571)270-7107. The examiner can normally be reached Mon-Friday.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Helena Kosanovic can be reached on (571) 272-9059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: https://patentcenter.uspto.gov. Visit https://www.uspto.gov/patents/apply/patent-

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additional questions, contact the Electronic Business Center (EBC) at 866-217-9197

(toll-free). If you would like assistance from a USPTO Customer Service

Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JIMMY CHOU/
Primary Examiner, Art Unit 3761

Notice of References Cited	Application/Control No. 17/547,363	Applicant(s)/Patent Under Reexamination Krüger, Marc	
	Examiner JIMMY CHOU	Art Unit 3761	Page 1 of 2

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20130064937-A1	03-2013	Jarisch; Christian	G06K19/0614	426/112
*	B	US-20130014648-A1	01-2013	Rognon; Vincent	A47J31/3623	426/87
*	C	US-20140224130-A1	08-2014	Castellani; Andrea	A47J31/4492	426/77
*	D	US-20150017293-A1	01-2015	Carr; Simon	A47J31/3623	426/232
*	E	US-20150225169-A1	08-2015	Jarisch; Christian	G06K7/0008	426/115
*	F	US-20130129876-A1	05-2013	Ye; Yangsheng	A47J31/3638	426/232
*	G	US-7856920-B2	12-2010	Schmed; Arthur	A47J31/4496	99/305
*	H	US-20140242239-A1	08-2014	Boggavarapu; Deepak	A47J31/4492	426/433
*	I	US-20170295988-A1	10-2017	Chung; Chin-Kuo	A47J31/4403	1/1
*	J	US-20100078480-A1	04-2010	AKER; Wynn L.	G06K19/06009	235/494
*	K	US-20160174757-A1	06-2016	Rivera; Adrian	A47J31/4492	99/284
*	L	US-20160242594-A1	08-2016	EMPL; Gunter	A23C9/1508	1/1
*	M	US-20150368033-A1	12-2015	KRUG; Joerg	A47J31/407	426/112

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Notice of References Cited	Application/Control No. 17/547,363	Applicant(s)/Patent Under Reexamination Krüger, Marc	
	Examiner JIMMY CHOU	Art Unit 3761	Page 2 of 2

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20150047509-A1	02-2015	Trombetta; Liberatore A.	A47J31/4492	426/115
	B					
	C					
	D					
	E					
	F					
	G					
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	I					
	J					
	K					
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	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/547,363	Krüger, Marc
	Examiner	Art Unit
	JIMMY CHOU	3761

CPC - Searched*		
Symbol	Date	Examiner
B65D85/8043, A47J31/3628, A47J31/4492, B65D65/466, B65D2203/06, B65D2203/10	03/24/2022	CHOU

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
99	286,289R,295,302R,307,323	03/24/2022	CHOU

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
inventor name search	03/24/2022	CHOU

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/JIMMY CHOU/ Primary Examiner, Art Unit 3761	

Filed via EFS @ USPTO.gov on January 3, 2022
Practitioner's Docket No. 1859.029USC12 (KRU0022-WO-US-T13)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Marc Krüger	Art Unit: TBA
Application No.: 17/547,363	Examiner: TBA
Filed: December 10, 2021	Conf. No.: 6426

For: PORTION CAPSULE HAVING AN IDENTIFIER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicant submits this statement in accordance with its duty of disclosure under 37 C.F.R. §§ 1.56, 1.97, and 1.98. The submission made herewith is in no way intended as an admission that the cited items constitute material prior art or otherwise would render the claims unpatentable in any way. The submission also is in no way intended to substitute for the Examiner's own independent investigation.

Form PTO/SB/08a is submitted herewith. Copies of foreign patent documents and non-patent literature have not been provided due to their presence in the parent application to this application (see MPEP 609.02(A)(2)), and Applicant notes that this section requires the Examiner to consider all of the references previously submitted to the USPTO even if not listed in any Information Disclosure Statement filed in this application. Applicant is resubmitting these references on the attached form PTO/SB/08a so that all of the references are listed on the face of the patent. However, to the extent that any references have been inadvertently overlooked, or otherwise are not resubmitted on this form, Applicant respectfully requests consideration of the previously submitted references as is set forth in MPEP 609.02(A)(2) and inclusion of such references on the face of the patent. Applicant respectfully solicits the Examiner's consideration of the cited references and entry thereof into the record of this application.

This Information Disclosure Statement is being submitted prior to the mailing of a first Office Action or Notice of Allowance. No fees are believed to be due; however, if any fee is due with the filing of this paper, please charge the amount to Deposit Account 50-1097.

Date: January 3, 2022

/Paul J. Palinski/

Paul J. Palinski
Reg. No. 71,080
Attorney for Applicant
The Dobrusin Law Firm, P.C.
29 W. Lawrence Street - Suite 210
Pontiac, MI 48342
(248) 292-2920

Customer No. 25215

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	TBA
	Examiner Name	TBA /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

U.S. PATENTS					
Examiner Initials*	Cite No.	Patent Number	Kind Code	Issue Date	Name of Patentee or Applicant of cited Document
	1.	2,778,739		01/22/1957	Rodth
	2.	3,183,096		05/11/1965	Hiscock
	3.	3,501,896	A	03/24/1970	Stoeser et al.
	4.	3,521,207		07/21/1970	Britton et al.
	5.	3,631,793		06/23/1969	Bednartz
	6.	3,640,727		02/08/1972	Heusinkveld
	7.	4,136,202		01/23/1979	Favre
	8.	4,389,925		06/28/1983	Piana
	9.	4,534,985		08/13/1985	Gasau
	10.	4,540,595		09/10/1985	Acitelli et al.
	11.	4,644,151	A	05/12/1987	Piet
	12.	4,676,482	A1	11/04/1987	Marvin et al.
	13.	4,742,645		05/10/1988	Johnston
	14.	4,846,052		07/11/1989	Farve et al.
	15.	4,859,337		08/22/1989	Woltermann
	16.	4,860,645	A	08/29/1989	Van Der Lijn et al.
	17.	4,867,993		09/19/1989	Nordskog
	18.	4,976,179		12/11/1990	Lacrouts-Cazenave
	19.	5,012,629		05/07/1991	Rehman et al.
	20.	5,028,769	A	07/02/1991	Claypool et al.
	21.	5,108,768	A	04/28/1992	So
	22.	5,194,553	A	03/16/1993	Freeburne et al.
	23.	5,242,702	A	09/07/1993	Fond
	24.	5,243,164	A	09/07/1993	Erickson et al.
	25.	5,251,758	A	10/12/1993	Kolacek
	26.	5,285,041	A	02/08/1994	Wright
	27.	5,325,765	A	07/16/1996	Takashima
	28.	5,402,707	A	04/04/1995	Fond et al.
	29.	5,460,078	A	10/24/1995	Weller
	30.	5,496,573	A	03/05/1996	Tsuji et al.
	31.	5,501,945	A	03/26/1996	Kanakkanatt
	32.	5,535,765	A	07/16/1996	Takashima
	33.	5,601,716	A	02/11/1997	Heinrich et al.
	34.	5,637,850	A	06/10/1997	Honda
	35.	5,656,311	A	08/12/1997	Fond
	36.	5,656,316		08/12/1997	Fond et al.
	37.	5,656,318	A	08/12/1997	Fond et al.
	38.	5,677,522	A	10/14/1997	Rice et al.

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Nespresso USA, Inc. Ex. 1002

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.C/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
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	First Named Inventor	Marc Krüger
	Art Unit	TBA
	Examiner Name	TBA /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

	39.	5,725,261	A	03/10/1998	Rahn
	40.	5,840,189	A	11/24/1998	Sylvan et al.
	41.	5,888,549	A	03/30/1999	Buchholz et al.
	42.	5,895,672	A	04/20/1999	Cooper
	43.	5,897,899	A	04/27/1999	Fond
	44.	5,917,165	A	06/29/1999	Platt et al.
	45.	5,941,055	A	08/24/1999	Coates
	46.	5,948,455	A	09/07/1999	Schaeffer et al
	47.	5,980,743	A	11/09/1999	Bairischer
	48.	5,994,677	A	11/30/1999	Akerlind
	49.	6,025,000		02/15/2000	Fond et al.
	50.	6,153,026	A	11/28/2000	Michotte
	51.	6,199,780	B1	03/13/2001	Görlitz
	52.	6,202,929	A	03/20/2001	Verschuur et al.
	53.	6,213,326	B1	04/10/2001	Denner et al.
	54.	6,299,926	B1	10/09/2001	Balakrishnan et al.
	55.	6,440,256	B1	08/27/2002	Gordon et al.
	56.	6,451,332	B1	09/17/2002	Tanaka et al.
	57.	6,527,181	B1	03/04/2003	Kleeberg et al.
	58.	6,589,577	B2	07/08/2003	Lazaris et al.
	59.	6,598,800	A1	07/29/2003	Schmit et al.
	60.	6,607,762	B2	08/19/2003	Lazaris et al.
	61.	6,627,244	B2	09/30/2003	Omura
	62.	6,645,537	B2	11/11/2003	Sweeney et al.
	63.	6,655,260	B2	12/02/2003	Lazaris
	64.	6,817,538	B2	11/16/2004	Afzali-Ardakani et al.
	65.	6,861,086	B2	03/01/2005	Buckingham et al.
	66.	6,948,420	B2	09/27/2005	Kirschner et al.
	67.	6,994,879	B2	02/07/2006	Cirigliano et al.
	68.	7,408,094	B2	08/05/2008	Little et al.
	69.	7,444,925	B2	02/07/2006	Cirigli
	70.	7,464,518	B2	12/16/2008	Ansinn
	71.	7,543,527	B2	06/09/2009	Schmed
	72.	7,552,672	B2	06/30/2009	Schmed
	73.	7,595,870	B2	09/29/2009	Ringlien
	74.	7,673,558	B2	03/09/2010	Panesar et al.
	75.	7,685,930	B2	03/30/2010	Mandralis et al.
	76.	7,815,953	B2	10/19/2010	Mastropasqua et al.
	77.	7,856,920	B2	12/28/2010	Schmed et al.
	78.	7,935,646	B2	05/03/2011	Viazmensky et al.

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.C/

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	Examiner Name	TBA /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

	79.	7,946,217	B2	05/24/2011	Favre et al.
	80.	7,981,451	B2	07/19/2011	Ozanne
	81.	8,039,029	B2	10/18/2011	Ozanne
	82.	8,039,034	B2	10/18/2011	Ozanne
	83.	8,087,347	B2	01/03/2012	Halliday et al.
	84.	8,088,423	B2	01/03/2012	Ohresser et al.
	85.	8,101,928	B2	01/24/2012	Hill et al.
	86.	8,109,200	B2	02/07/2012	Hansen
	87.	8,114,461	B2	02/14/2012	Perlman et al.
	88.	8,163,318	B2	04/24/2012	Ozanne et al.
	89.	8,168,908	B2	05/01/2012	Heimann
	90.	8,257,766	B2	09/04/2012	Yoakim et al.
	91.	8,276,639	B2	10/02/2012	Binacchi
	92.	8,307,754	B2	11/13/2012	Ternite et al.
	93.	8,361,527	B2	01/29/2013	Winkler et al.
	94.	8,474,368	B2	07/02/2013	Kilber et al.
	95.	8,491,948	B2	07/23/2013	Ozanne et al.
	96.	8,491,976	B2	07/23/2013	Sato et al.
	97.	8,505,440	B2	08/13/2013	Kirschner et al.
	98.	8,512,886	B2	08/20/2013	Ozanne
	99.	8,695,484	B2	04/15/2014	Mori
	100	8,734,881	B2	05/27/2014	Yoakim et al.
	101	8,747,775	B2	06/10/2014	Sandvick
	102	8,794,125	B1	08/05/2014	Rivera
	103	8,906,436	B2	12/09/2014	Nowak
	104	8,916,220	B2	12/23/2014	Mahlich et al.
	105	8,956,672	B2	02/17/2015	Yoakim et al.
	106	9,049,958	B2	06/09/2015	Fischer
	107	9,072,402	B2	07/07/2015	Ryser
	108	9,079,705	B2	07/14/2015	Digiuni
	109	9,150,347	B2	10/06/2015	Scheiber
	110	9,204,751	B2	12/08/2015	Peterson
	111	9,216,854	B2	12/22/2015	Schreiber
	112	9,227,837	B2	01/05/2016	Reinmuth
	113	9,271,602	B2	03/01/2016	Beaulieu et al.
	114	9,290,317	B2	03/22/2016	Quinn et al.
	115	9,295,278	B2	03/29/2016	Nowak
	116	9,320,385	B2	04/26/2016	Spiegel et al.

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Art Unit	TBA
	Examiner Name	TBA /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

	117	9,357,791	B2	06/07/2016	Fountain et al.
	118	9,359,126	B2	06/07/2016	Wong et al.
	119	9,359,128	B2	06/07/2016	Mahlich
	120	9,392,902	B2	07/19/2016	Parentes et al.
	121	9,394,101	B2	07/19/2016	Empl
	122	9,409,703	B2	08/09/2016	Krüger et al.
	123	9,409,704	B2	08/09/2016	Digiuni et al.
	124	9,415,931	B2	08/16/2016	Gerbaulet et al.
	125	9,428,328	B2	08/30/2016	Trombetta et al.
	126	9,428,329	B2	08/30/2016	Trombetta et al.
	127	9,434,525	B2	09/06/2016	Fabozzi et al.
	128	9,486,108	B1	11/08/2016	Douglas et al.
	129	9,676,538	B2	06/13/2017	Evers et al.
	130	9,708,086	B2	07/18/2017	Bianchi
	131	9,770,129	B2	09/220176	Remo et al.
	132	9,808,112	B2	11/07/2017	Favero et al.
	133	9,969,564	B2	05/15/2018	Krüger

U.S. PATENT APPLICATION PUBLICATIONS					
Examiner Initials*	Cite No.	Publication Number	Kind Code	Publication Date	Name of Patentee or Applicant of cited Document
	1.	2001/0038204	A1	11/08/2001	Nojima et al
	2.	2001/0047724	A1	12/06/2001	Lazaris
	3.	2001/0048957	A1	12/06/2001	Lazaris et al.
	4.	2001/0181005	A1	08/09/2007	Kirschner et al.
	5.	2002/0020659	A1	02/21/2002	Sweeney
	6.	2002/0048621	A1	04/25/2002	Boyd et al.
	7.	2002/0085164	A1	07/04/2002	Stanford-Clark
	8.	2002/0088807	A1	07/11/2002	Perkovic et al.
	9.	2002/0110626	A1	08/15/2002	Buckingham et al.
	10.	2002/0148356	A1	10/17/2002	Lazaris et al.
	11.	2003/0005826	A1	01/09/2003	Sargent et al.
	12.	2003/0033938	A1	02/20/2003	Halliday et al.
	13.	2003/0039731	A1	02/27/2003	Dalton et al.
	14.	2003/0121979	A1	07/03/2003	Haens et al.
	15.	2003/0172813	A1	09/18/2003	Schifferle
	16.	2003/0222089	A1	12/04/2003	Hale
	17.	2004/0005384	A1	01/08/2004	Cai
	18.	2004/0045443	A1	03/11/2004	Lazaris et al.
	19.	2004/0089158	A1	05/13/2004	Mahlich
	20.	2004/0089602	A1	05/13/2004	Heinrich et al.

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
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	First Named Inventor	Marc Krüger
	Art Unit	TBA
	Examiner Name	TBA /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

	21.	2004/0115310	A1	06/17/2004	Yoakim et al.
	22.	2004/0118295	A1	06/24/2004	Angeles
	23.	2004/0142070	A1	07/22/2004	Haen
	24.	2004/0155113	A1	08/12/2004	Urano et al
	25.	2004/0182250	A1	09/23/2004	Halliday et al.
	26.	2004/0188459	A1	09/30/2004	Halliday et al.
	27.	2005/0016383	A1	01/27/2005	Kirschner et al.
	28.	2005/0045566	A1	03/03/2005	Larkin et al.
	29.	2005/0051478	A1	03/10/2005	Karanikos et al.
	30.	2005/0061478	A1	03/24/2005	Huang
	31.	2005/0150391	A1	07/14/2005	Schifferle
	32.	2005/0160919	A1	07/28/2005	Balkau
	33.	2005/0183581	A1	08/25/2005	Kirschner et al.
	34.	2005/0266122	A1	12/01/2005	Franceschi
	35.	2006/0010744	A1	01/19/2006	Schumacher
	36.	2006/0032427	A1	02/16/2006	Ishii et al.
	37.	2006/0084344	A1	04/20/2006	Bonneh
	38.	2006/0107841	A1	05/25/2006	Schifferle
	39.	2006/0194004	A1	08/31/2006	Niemoller at al.
	40.	2006/0228447	A1	10/12/2006	Ganesan et al.
	41.	2006/0236871	A1	10/26/2006	Ternite et al.
	42.	2007/0144355	A1	06/28/2007	Denisart et al.
	43.	2007/0148290	A1	06/28/2007	Ternite et al.
	44.	2007/0157821	A1	07/12/2007	Panesar et al.
	45.	2007/0181005	A1	08/09/2007	Kirschner et al.
	46.	2007/0181412	A1	08/09/2007	Raunig
	47.	2007/0203587	A1	08/30/2007	Erlandsson et al.
	48.	2007/0257118	A1	11/08/2007	Riley et al.
	49.	2008/0024536	A1	01/31/2008	Hirano et al.
	50.	2008/0026121	A1	01/31/2008	Mastropasqua et al.
	51.	2008/0028946	A1	02/07/2008	Kirschner et al.
	52.	2008/0038441	A1	02/14/2008	Kirschner
	53.	2008/0085356	A1	04/10/2008	Colliver et al.
	54.	2008/0116105	A1	05/22/2008	Statham
	55.	2008/0148948	A1	06/26/2008	Evers et al.
	56.	2008/0187638	A1	08/07/2008	Hansen
	57.	2008/0245236	A1	10/09/2008	Ternite et al.
	58.	2008/0299262	A1	12/04/2008	Reati
	59.	2008/0302251	A1	12/11/2008	Rijskamp et al.
	60.	2009/0004343	A1	01/01/2009	Xiong et al.
	61.	2009/0007793	A1	01/08/2009	Glucksman et al.

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Examiner Name	TBA /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

	62.	2009/0007796	A1	01/08/2009	Maddalena Ricotti
	63.	2009/0092711	A1	04/09/2009	Ninh et al.
	64.	2009/0126577	A1	05/21/2009	Ternite
	65.	2009/0136626	A1	05/28/2009	Mueller
	66.	2009/0211458	A1	08/27/2009	Denisart et al.
	67.	2009/0211713	A1	08/27/2009	Binacchi
	68.	2009/0223375	A1	09/10/2009	Verbeek
	69.	2009/0249961	A1	10/08/2009	Cheng
	70.	2009/0289121	A1	11/26/2009	Maeda et al.
	71.	2009/0291379	A1	11/26/2009	Masaya Oota, et al.
	72.	2009/0324788	A1	12/31/2009	Roy et al.
	73.	2009/0324791	A1	12/31/2009	Ohresser et al.
	74.	2010/0000667	A1	01/07/2010	Funnell
	75.	2010/0028495	A1	02/04/2010	Novak et al.
	76.	2010/0050880	A1	03/04/2010	Suter et al.
	77.	2010/0051532	A1	03/04/2010	Wawrla et al.
	78.	2010/0054532	A1	03/04/2010	Mitte et al.
	79.	2010/0072272	A1	03/25/2010	Angros
	80.	2010/0078480	A1	04/01/2010	Aker
	81.	2010/0108541	A1	05/06/2010	Roberto
	82.	2010/0132564	A1	06/03/2010	Ozanne et al.
	83.	2010/0147418	A1	06/17/2010	Piana
	84.	2010/0147872	A1	06/17/2010	Saxton et al.
	85.	2010/0172951	A1	07/08/2010	Wasielewski
	86.	2010/0181378	A1	07/22/2010	Hayakawa et al.
	87.	2010/0196545	A1	08/05/2010	Buffet et al.
	88.	2010/0239717	A1	09/23/2010	Yoakim et al.
	89.	2010/0239733	A1	09/23/2010	Yoakim et al.
	90.	2010/0239734	A1	09/23/2010	Yoakim,et al.
	91.	2010/0260915	A1	10/14/2010	Young
	92.	2010/0263329	A1	10/21/2010	Nash
	93.	2010/0264640	A1	10/21/2010	Lane et al.
	94.	2010/0288131	A1	11/18/2010	Kilber et al.
	95.	2010/0288133	A1	11/18/2010	Litzka et al.
	96.	2010/0303964	A1	12/02/2010	Beaulieu et al.
	97.	2010/0308061	A1	12/09/2010	Loulourgas
	98.	2011/0005399	A1	01/31/2011	Epars et al.
	99.	2011/0008913	A1	01/13/2011	Wadhwa et al.
	100	2011/0020500	A1	01/27/2011	Eichler et al.
	101	2011/0033580	A1	02/10/2011	Biesheuvel et al.
	102	2011/0041702	A1	02/24/2011	Yoakim
	103	2011/0064852	A1	03/17/2011	Mann

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Examiner Name	TBA /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

	104	2011/0076361	A1	03/31/2011	Peterson et al.
	105	2011/0089135	A1	04/21/2011	Simon et al.
	106	2011/0097450	A1	04/28/2011	Krüger
	107	2011/0142996	A1	06/16/2011	Krüger
	108	2011/0189350	A1	08/04/2011	Van Belleghem et al.
	109	2011/0189362	A1	08/04/2011	Denisart et al.
	110	2011/0212225	A1	09/01/2011	Mariller
	111	2011/0250333	A1	10/13/2011	Ozanne
	112	2011/0250812	A1	10/13/2011	Pourdeyhimi et al.
	113	2011/0303095	A1	12/15/2011	Fu et al.
	114	2011/0308397	A1	12/22/2011	Sinot et al.
	115	2012/0006685	A1	01/12/2012	Van Engelen
	116	2012/0058226	A1	03/08/2012	Winkler et al.
	117	2012/0060697	A1	03/15/2012	Ozanne
	118	2012/0070542	A1	03/22/2012	Camera et al.
	119	2012/0070543	A1	03/22/2012	Mahlich
	120	2012/0070551	A1	03/22/2012	Mahlich
	121	2012/0097041	A1	04/26/2012	Bucher et al.
	122	2012/0097602	A1	04/26/2012	Tedford
	123	2012/0100264	A1	04/26/2012	Bucher et al.
	124	2012/0121765	A1	05/17/2012	Kamerbeek et al.
	125	2012/0123106	A1	05/17/2012	Joos
	126	2012/0126834	A1	05/24/2012	Kleinhans
	127	2012/0183657	A1	07/19/2012	Marina et al.
	128	2012/0195155	A1	08/02/2012	Gennai et al.
	129	2012/0201933	A1	08/09/2012	Dran et al.
	130	2012/0207893	A1	08/16/2012	Krüger
	131	2012/0207895	A1	08/16/2012	Rivera
	132	2012/0251668	A1	10/04/2012	Wong, et al.
	133	2012/0251672	A1	10/04/2012	Kamerbeek, et al.
	134	2012/0258210	A1	10/11/2012	Wong et al.
	135	2012/0295234	A1	11/22/2012	Rognon et al.
	136	2012/0308688	A1	12/06/2012	Peterson et al.
	137	2013/0055903	A1	03/07/2013	Deuber
	138	2013/0059039	A1	03/07/2013	Trombetta et al.
	139	2013/0064929	A1	03/14/2013	Jarisch et al.
	140	2013/0064937	A1	03/14/2013	Jarisch et al.
	141	2013/0084363	A1	04/04/2013	Krueger et al.
	142	2013/0084376	A1	04/04/2013	Fischer et al.
	143	2013/0101716	A1	04/25/2013	Beaulieu et al.
	144	2013/0122153	A1	05/16/2013	Ferrier et al.
	145	2013/0125762	A1	05/23/2013	Dogan et al.

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Examiner Name	TBA /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

	146	2013/0129872	A1	05/23/2013	Krueger et al.
	147	2013/0129876	A1	05/23/2013	Ye et al.
	148	2013/0136828	A1	05/30/2013	Anghileri
	149	2013/0149424	A1	06/13/2013	Fischer
	150	2013/0156897	A1	06/20/2013	Goldstein
	151	2013/0206011	A1	08/15/2013	Ozanne et al.
	152	2013/0209610	A1	08/15/2013	Carder et al.
	153	2013/0209618	A1	08/15/2013	Trombetta et al.
	154	2013/0209619	A1	08/15/2013	Mahlich
	155	2013/0209620	A1	08/15/2013	Ozanne et al.
	156	2013/0209622	A1	08/15/2013	Fountain et al.
	157	2013/0216663	A1	08/22/2013	Dogan et al.
	158	2013/0230627	A1	09/05/2013	Hansen et al.
	159	2013/0243910	A1	09/19/2013	Krueger et al.
	160	2013/0312619	A1	11/28/2013	Spiegel et al.
	161	2013/0327223	A1	12/12/2013	Bartoli et al.
	162	2014/0001563	A1	01/03/2014	Krueger et al.
	163	2014/0004231	A1	01/02/2014	Norton et al.
	164	2014/0017359	A1	01/16/2014	Krueger et al.
	165	2014/0046126	A1	02/13/2014	Gilligan et al.
	166	2014/0127364	A1	05/08/2014	Fu et al.
	167	2014/0141128	A1	05/22/2014	Trombetta et al.
	168	2014/0141129	A1	05/22/2014	Greene
	169	2014/0161936	A1	06/12/2014	Trombetta et al.
	170	2014/0178538	A1	06/26/2014	Husband et al.
	171	2014/0196608	A1	07/17/2014	Amrein et al.
	172	2014/0220191	A1	08/07/2014	Kelly et al.
	173	2014/0224130	A1	08/14/2014	Castellani et al.
	174	2014/0230370	A1	08/21/2014	Bianchi
	175	2014/0263033	A1	09/18/2014	Fu et al.
	176	2014/0272018	A1	09/18/2014	Koller et al.
	177	2014/0287104	A1	09/25/2014	Austin et al.
	178	2014/0287105	A1	09/25/2014	Husband et al.
	179	2014/0302204	A1	10/09/2014	Evers et al.
	180	2014/0346022	A1	11/27/2014	Keller et al.
	181	2014/0348984	A1	11/27/2014	Zeller et al.
	182	2014/0370181	A1	12/18/2014	Young et al.
	183	2015/0010680	A9	01/08/2015	Mahlich
	184	2015/0020481	A1	01/22/2015	Hodler
	185	2015/0029702	A1	01/29/2015	Foley
	186	2015/0056331	A1	02/26/2015	Rivera
	187	2015/0056340	A1	02/26/2015	Trombetta et al.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Attorney Docket Number	1859.029USC12

	188	2015/0056351	A1	02/26/2015	Deuber
	189	2015/0079241	A1	03/19/2015	Mahlich
	190	2015/0119220	A1	04/30/2015	Rea et al.
	191	2015/0128525	A1	05/14/2015	Bartoli et al.
	192	2015/0132441	A1	05/14/2015	Accursi
	193	2015/0157164	A1	06/11/2015	Digiuni
	194	2015/0158665	A1	06/11/2015	Krueger et al.
	195	2015/0158666	A1	06/11/2015	Krüger et al.
	196	2015/0166204	A1	06/18/2015	Rea et al.
	197	2015/0173558	A1	06/25/2015	Cross et al.
	198	2015/0175347	A1	06/25/2015	Empl
	199	2015/0201790	A1	07/23/2015	Smith et al.
	200	2015/0239652	A1	08/27/2015	Trombetta et al.
	201	2015/0246741	A1	09/03/2015	Hansen et al.
	202	2015/0274411	A1	10/01/2015	Krueger
	203	2015/0297021	A1	10/22/2015	Bugnano et al.
	204	2015/0297023	A1	10/22/2015	Hansen et al.
	205	2015/0314954	A1	11/05/2015	Empl
	206	2015/0329282	A1	11/19/2015	Bartoli et al.
	207	2015/0353275	A1	12/10/2015	Accursi
	208	2015/0375926	A1	12/31/2015	Fischer
	209	2016/0001968	A1	01/07/2016	Krüger et al.
	210	2016/0037961	A1	02/11/2016	Digiuni
	211	2016/0045060	A1	02/18/2016	Flick
	212	2016/0058234	A1	03/03/2016	Eppler et al.
	213	2016/0066591	A1	03/10/2016	Halliday et al.
	214	2016/0075506	A1	03/17/2016	Chapman et al.
	215	2016/0194146	A1	07/07/2016	Schelch et al.
	216	2016/0207696	A9	07/21/2016	Trombetta et al.
	217	2016/0242594	A1	08/25/2016	Empl et al.
	218	2016/0251150	A1	09/01/2016	Macchi et al.
	219	2016/0325921	A1	11/10/2016	Empl
	220	2016/0332759	A1	11/17/2016	Trombetta et al.
	221	2016/0340110	A1	11/24/2016	Trombetta et al.
	222	2017/0020329	A1	01/26/2017	Douglas et al.
	223	2017/0027374	A1	02/02/2017	Smith et al.
	224	2019/0359418	A1	11/28/2019	Kruger
	225	2021/0086986	A1	05/25/2021	Krüger
	226	2021/0269232	A1	09/02/2021	Krüger

FOREIGN PATENT DOCUMENTS

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Nespresso USA, Inc. Ex. 1002

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Attorney Docket Number	1859.029USC12

Examiner Initial*	Cite No.	Foreign Document Number	Country Code	Kind Code	Publication Date	Name of Patentee or Applicant of cited Document	T[5]
	1.	2327021 (also published as US 6,440,256)	CA	C	01/04/2005	Helmbrecht et al.	
	2.	2399283 (also published as US 6,589,577)	CA	C	05/01/2007	Lazaris et al.	
	3.	2399290 (also published as US 6,607,762)	CA	C	01/10/2006	Lazaris et al.	
	4.	2400033 (also published as US6645537)	CA	C	02/08/2005	Beaulieu et al.	
	5.	2436389 (also published as US 6,861,086)	CA	A1	08/22/2002	Buckingham et al.	
	6.	2531544 (also published as US 7,946,217)	CA	C	05/01/2012	Favre et al.	
	7.	2538256 (also published as US2005/0051478)	CA	C	08/02/2011	Karanikos et al.	
	8.	2661921 (also published as US 8,512,886)	CA	A1	03/06/2008	Ozanne	
	9.	2662069 (also published as US 8,039,029)	CA	C	01/08/2013	Ozanne	
	10.	2662071 (also published as US 8,491,948)	CA	C	07/05/2011	Ozanne et al.	
	11.	2763746 (also published as US 8,114,461)	CA	A1	03/11/2010	Perlman et al.	
	12.	2784752 (also published as US 9,204,751)	CA	C	06/23/2011	Peterson	
	13.	2785843 (also published as US 2013/0156897)	CA	A1	02/10/2013	Goldstein	

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.C/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
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	First Named Inventor	Marc Krüger
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	Attorney Docket Number	1859.029USC12

	14.	2788283 (also published as US 9,428,328)	CA	A1	03/01/2013	Trombetta et al.	
	15.	2810237 (also published as US 8,361,527)	CA	A1	03/08/2012	Winkler et al.	
	16.	2832794 (also published as US 2014/0127364)	CA	C	03/22/2016	Fu et al.	
	17.	2833096 (also published as US 2014/0141128)	CA	C	05/31/2016	Fu et al.	
	18.	2866119 (also published as US 2015/0020481	CA	A1	09/19/2013	Hodler	
	19.	2872667 (also published as US 2015/0157164)	CA	A1	11/21/2013	Digiuni et al.	
	20.	2874025 (also published as US 2015/0119220)	CA	A1	12/27/2013	Rea et al.	
	21.	2877090 (also published as US 9,409,704)	CA	A1	01/09/2014	Digiuni et al.	
	22.	2886299 (also published as US 9,969,564)	CA	A1	04/03/2014	Krüger	
	23.	2888658 (also published as US 2014/0161936)	CA	C	06/12/2014	FU et al.	
	24.	2898173 (also published as US 2015/0353275)	CA	A1	08/07/2014	Accursi	
	25.	2901582 (also published as US 2016/0075506)	CA	A1	11/20/2014	Chapman et al.	
	26.	2902231	CA	A1	08/28/2014	Trombetta et al.	
	27.	101646613 (also published as US 2001/0181005)	CN	A	02/10/2010	Kirschner et al.	
	28.	102741136 (also published as US 2011/0064852)	CN	A	10/17/2012	Torsten	

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Nespresso USA, Inc. Ex. 1002

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	First Named Inventor	Marc Krüger
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	Attorney Docket Number	1859.029USC12

	29.	104334473 (also published as US 2015/0132441)	CN	A	02/04/2015	Accursi	
	30.	1207866	DE	B	12/23/1965	Bentz	X
	31.	1221960	DE	B	07/28/1966	Bentz &Sohn Melitta	X
	32.	3432339	DE	A1	03/13/1986	Gesen et al.	X
	33.	19910226 (also published as US 6,527,181)	DE	A1	09/21/2000	Kleeberg et al.	
	34.	60115221 (also published as US2004/0115310)	DE	T2	07/20/2006	Yoakim	
	35.	69615001 (also published as US 5,948,455)	DE	T2	03/21/2002	Yoakim et al.	
	36.	102006004329	DE	A1	08/09/2007	Martinez et al.	X
	37.	102010027485	DE	A1	01/19/2012	Krueger	X
	38.	102010034206	DE	A1	02/16/2012	Eppler	X
	39.	102011010534	DE	A1	08/09/2012	Krüger et al.	
	40.	102011115833 (also published as US 9,409,703)	DE	A1	04/18/2013	Krüger et al.	
	41.	102012110446	DE	A1	01/02/2014	Krüger et al.	X
	42.	102014018470	DE	A1	06/16/2016	Heimann et al.	X
	43.	202006003115	DE	U1	05/11/2006	Unknown	X
	44.	202009014945 (also published as US 9,072,402)	DE	U1	09/23/2010	Ryser	
	45.	202010007919 (also published as US 2013/0209619)	DE	U1	11/11/2010	Mahlich	
	46.	0224297 (also published as US 4,860,645)	EP	A1	06/03/1987	Van Der Lijn	
	47.	0242556 (also published as US 4,846,052)	EP	A1	10/28/1987	Favre	
	48.	0244339 (also published as US 4,676,482)	EP	A1	11/04/1987	Reece et al.	
	49.	0272432	EP	A1	06/29/1988	Illy	
	50.	0272922	EP	A2	06/29/1988	Bentley et al.	

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	First Named Inventor	Marc Krüger
	Art Unit	TBA
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	Attorney Docket Number	1859.029USC12

	51.	0334572	EP	A1	09/27/1989	Bentley et al.	
	52.	0455337	EP	A1	11/06/1991	Bentley et al.	
	53.	0468078 (also published as US 5,242,702)	EP	A1	01/29/1992	Fond	
	54.	0468079	EP	A1	01/29/1992	Fond	
	55.	0512468	EP	A1	11/11/1992	Fond	
	56.	0569230	EP	A1	11/10/1993	Freeburne et al.	
	57.	0638486	EP	B1	10/23/1996	Gibbs et al.	
	58.	0656224 (also published as US 5,601,716)	EP	A1	06/07/1995	Heinrich et al.	
	59.	0844195	EP	A1	05/27/1998	Koch et al.	X
	60.	0859467 (also published as US 5,917,165)	EP	A1	08/19/1998	Platt et al.	
	61.	0923865 (also published as US 6,451,332)	EP	A2	06/23/1999	Tanaka et al.	
	62.	1129623	EP	A1	09/05/2001	Diaz	
	63.	1221418 (also published as US 2002/0088807)	EP	A1	07/10/2002	Perkovic et al	
	64.	1273528	EP	A1	01/08/2003	Yoakim et al.	X
	65.	1344722 (also published as US 7,543,527)	EP	A1	09/17/2003	Schifferle	
	66.	1344724	EP	A1	09/17/2003	Hale	
	67.	1363501 (also published as US 2002/0110626)	EP	A2	11/26/2003	Buckingham	
	68.	1471012	EP	A2	10/27/2004	Tuens	
	69.	1555219 (also published as US 7,552,672)	EP	A1	07/20/2005	Schifferle	
	70.	1559351 (also published as US 2005/0160919)	EP	A2	08/03/2005	Balkau	
	71.	1586534 (also published as US 2008/0148948)	EP	A1	10/19/2005	Evers et al.	
	72.	1710173	EP	A1	10/11/2006	Ternite et al.	

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Nespresso USA, Inc. Ex. 1002

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Art Unit	TBA
	Examiner Name	TBA /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

		(also published as US 2006/0236871)					
	73.	1722398 (also published as US 8,101,928)	EP	A1	11/15/2006	Downer et al.	
	74.	1772398	EP	A1	04/11/2007	Van Belleghem	
	75.	1792850 (also published as US 2007/0148290)	EP	B1	06/06/2007	Ternite et al.	
	76.	1796516 (also published as US 8,109,200)	EP	A2	06/20/2007	Hansen	
	77.	1849718	EP	A1	10/31/2007	Rubino	
	78.	1859713	EP	A1	11/28/2007	Boussemart	
	79.	1882431 (also published as US 8,088,423)	EP	B1	04/28/2010	Ohresser et al.	
	80.	1882432 (also published as US 2009/0324791)	EP	B1	01/30/2008	Ohresser et al	
	81.	1882432	EP	A1	01/30/2008	Ohresser et al.	
	82.	1892199	EP	A1	02/27/2008	Ternite	X
	83.	1974638 (also published as US 2008/0024536)	EP	A1	10/01/2008	Ternite et al.	
	84.	2012994	EP	B1	07/11/2012	Abegglen et al.	
	85.	2158829 (also published as US 2010/0050880)	EP	A1	03/03/2010	Suter et al.	
	86.	2218653	EP	A1	08/18/2010	Wons UWE	X
	87.	2230195 (also published as US 8,734,881)	EP	A1	09/22/2010	Yoakim et al.	
	88.	2239211 (also published as US 8,257,766)	EP	A1	10/13/2010	Yoakim et al.	
	89.	2284102	EP	A1	02/16/2011	Schulte et al.	
	90.	2287090 (also published as US 2011/0041702)	EP	A1	02/23/2011	Yoakim	
	91.	2364930 (also published as US 8,956,672)	EP	A2	09/14/2011	Yoakim et al.	

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	92.	2384133 (also published as US 2011/0250333)	EP	B1	11/09/2011	Ozanne	
	93.	2384199 (also published as US2010/0172951)	EP	A1	11/09/2011	Wasielewski	
	94.	2412645	EP	A1	02/01/2012	Hiridjee	X
	95.	2444339 (also published as US 2013/0216663)	EP	A1	04/25/2012	Dogan, et al.	
	96.	2484505 (also published as US 2012/0195155)	EP	A2	08/08/2012	Gennai et al.	
	97.	2537778	EP	A1	12/26/2012	Pineschi	
	98.	2559636 (also published as US 9,434,525)	EP	A1	02/20/2013	Fabozzi	
	99.	2569230 (also published as US2013/0064937)	EP	B1	07/13/2016	Abegglen et al.	
	100.	2595902 (also published as US 2021/0086986)	EP	A1	05/29/2013	Krüger	
	101.	2809006 (also published as US 2014/0346022)	EP	A1	12/03/2014	Keller et al.	
	102.	2957525 (also published as US 2019/0359418)	EP	A1	12/23/2015	Kruger	
	103.	3023361 (also published as US2021/0269232)	EP	A1	05/25/2016	Krüger	
	104.	569230 (also published as US 5,194,553)	EP	A1	11/10/1993	Freeburne et al.	
	105.	2556323	FR	A1	06/14/1985	Munier Rene	
	106.	2912124	FR	A1	08/08/2008	Blanc et al.	
	107.	2963332 (also published as US 2013/0122153)	FR	A1	02/03/2012	Ferrier et al.	
	108.	1402799	GB	A	08/13/1975	Battelle Memorial Institute	
	109.	2469874	GB	A	11/03/2010	Hansen et al.	

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Art Unit	TBA
	Examiner Name	TBA/JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

	110.	2482032 (also published as US 9,357,791)	GB	A	01/18/2012	Fountain et al.	
	111.	02289207	JP	A	11/29/1990	Ozasa et al.	abs.
	112.	2001-017094	JP	A	01/23/2001	Toshiyuki et al.	X
	113.	2001-082699	JP	A	03/30/2001	Suzuki et al	
	114.	2001-250161	JP	A	09/14/2001	Takayuki et al.	X
	115.	2002-274000	JP	A	09/25/2002	DAINIPPON PRINTING CO LTD	
	116.	2002-347852	JP	A	12/04/2002	SHOWA DENKO PLASTIC PROD CO	
	117.	2003-235733	JP	A	08/26/2003	Mitsuaki	X
	118.	2003-265320 (also published as US 2003/0172813)	JP	A	09/24/2003	Schifferle	
	119.	2003-522567 (also published as US 2003/0033938)	JP	A	07/29/2003	Halliday et al.	
	120.	2004-097015	JP	A	04/02/2004	Matsuura	X
	121.	2004-533305 (also published as US 2004/0115310)	JP	A	11/04/2004	Unknown	
	122.	2005-199070 (also published as US 2005/0150391)	JP	A	07/28/2005	Schifferle	
	123.	2006-510682 (also published as US 7,408,094)	JP	A	03/30/2006	Little et al.	
	124.	2007-522856 (also published as US 7,673,558)	JP	A	08/16/2007	Panesar et al.	
	125.	2010-500199 (also published as US 2010/0000667)	JP	A	01/07/2010	Funnell	
	126.	2010-507418 (also published as US 2010/0051532)	JP	A	03/11/2010	Wawrla et al.	
	127.	2010-516364 (also published as US 2013/0206011)	JP	A	05/20/2010	Ozanne et al.	
	128.	2010-528635	JP	A	08/26/2010	Yoakim et al.	

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Art Unit	TBA
	Examiner Name	TBA /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

		(also published as US 9,277,837)					
	129.	2013-538609 (also published as US 9,049,958)	JP	A	10/17/2013	Fischer	
	130.	2015-085086	JP	A	05/07/2015	Hirota et al.	X
	131.	H01-233688	JP	A	09/19/1989	TOKYU CAR CORP	
	132.	H0394377	JP	A	04/19/1991	Toshiaki	
	133.	H04176311	JP	A	06/24/1992	Moji et al.	X
	134.	H06510682 (also published as US 5,460,078)	JP	A	12/01/1994	Weller	
	135.	S62-130649	JP	A	06/12/1987	Shiengu et al.	X
	136.	S62-168512	JP	A	07/24/1987	Yoosuto et al.	
	137.	200435370	KR	Y1	01/18/2007	Unknown	
	~~138.~~	~~1020050107747~~	~~KR~~	~~A~~	~~11/15/2005~~	~~Halliday et al.~~	
	139.	596919 (also published as US 2010/0303964)	NZ	A	11/29/2013	Beaulieu et al.	
	140.	01/99047 (also published as US 2003/0121979)	WO	A	12/27/2001	Haens et al.	
	141.	02/078498 (also published as US 2004/0089158)	WO	A1	10/10/2002	Mahlich	
	142.	02/28241	WO	A	04/11/2002	Boyd	
	143.	2004/065258	WO	A2	08/05/2004	Gomez et al.	
	144.	2004/071899 (also published as US 2005/0266122)	WO	A1	08/26/2004	Franceschi	
	145.	2004/082390 (also published as US 2006/0228447)	WO	A1	09/30/2004	Ganesan et al.	
	146.	2005/044067	WO	A1	05/19/2005	Ruchonnet	
	147.	2005/047111	WO	A1	05/26/2005	Rapparini	
	148.	2005/079638 (also published as US 2007/0157821)	WO	A1	09/01/2005	Panesar	
	149.	2006/108578	WO	A1	10/19/2006	Leloup et al.	
	150.	2006/121520 (also published as US 2005/0183581)	WO	A2	11/16/2006	Kirschner et al.	

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Nespresso USA, Inc. Ex. 1002

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Examiner Name	TBA /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

	151.	2007/042414 (also published as US 7,981,451)	WO	A1	04/19/2007	Ozanne	
	152.	2007/042486	WO	A2	04/19/2007	Van Belleghem	
	153.	2007/114685	WO	A1	10/11/2007	Verbeek	
	154.	2007/122144	WO	A1	11/01/2007	Blanc et al.	X
	155.	2007/122208	WO	A1	11/01/2007	Abegglen et al.	
	156.	2008/011913 (also published as US 2008/0026121)	WO	A1	01/31/2008	Mastropasqua et al.	
	157.	2008/090122 (also published as US 2013/0209620)	WO	A2	07/31/2008	Ozanne et al.	
	158.	2008/107645 (also published as US2010/0196545)	WO	A2	09/12/2008	Buffet et al.	
	159.	2008/121489 (also published as US 8,505,440)	WO	A1	10/09/2008	Kirschner et al.	
	160.	2008/126045 (also published as US 2010/0108541)	WO	A1	10/23/2008	Degli	
	161.	2008/132571	WO	A1	11/06/2008	Pineschi	
	162.	2009/084061	WO	A1	07/09/2009	Nani	
	163.	2009/112291	WO	A1	09/17/2009	Eichler et al.	
	164.	2009/114119 (also published as US 2010/0028495)	WO	A1	09/17/2009	Novak et al.	
	165.	2009/115475 (also published as US 2011/0005399)	WO	A1	09/24/2009	Epars et al.	
	166.	2009/130311 (also published as US 2011/0189350)	WO	A1	10/29/2009	Van Belleghem et al.	
	167.	2009/153161	WO	A1	12/23/2009	Ofenhitzer et al.	X
	168.	2010/007633	WO	A1	01/21/2010	Quadrelli	
	169.	2010/013146	WO	A3	04/29/2010`	Cometto	
	170.	2010/026053	WO	A1	03/11/2010	Denisart et al.	
	171.	2010/041179 (also published as US 2011/212225)	WO	A2	04/15/2010	Mariller	
	172.	2010/076048	WO	A1	07/08/2010	Campiche	
	173.	2010/076263	WO	A1	07/08/2010	Ozanne	

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	174.	2010/076761	WO	A1	07/08/2010	Giua et al.	
	175.	2010/085824	WO	A1	08/05/2010	Eder et al.	
	176.	2010/118545	WO	A2	10/21/2010	Deuber	X
	177.	2010/125326	WO	A1	11/04/2010	Hansen et al.	
	178.	2010/125329	WO	A1	11/04/2010	Hansen et al.	
	179.	2010/137952 (also published as US 2012/0121765)	WO	A1	12/02/2010	Kamerbeek et al.	
	180.	2010/137960 (also published as US 9,359,126)	WO	A1	12/02/2010	Wong et al.	
	181.	2010/138563 (also published as US 2013/0101716)	WO	A1	11/29/2010	Beaulieu et al.	
	182.	2011/000723 (also published as US 2012/0100264)	WO	A2	01/06/2011	Bucher et al.	
	183.	2011/012501 (also published as US 2012/0126834)	WO	A1	02/03/2011	Kleinhans	
	184.	2011/047836	WO	A1	04/28/2011	Rapparini	
	185.	2011/141532	WO	A1	11/17/2011	Jarisch et al.	
	186.	2011/147491 (also published as US 2013/0084376)	WO	A1	12/01/2011	Fischer et al.	
	187.	2011/147553 (also published as US 2013/0149424)	WO	A1	12/01/2011	Fischer	
	188.	2011/147591 (also published as US 2013/0084363)	WO	A1	12/01/2011	Krueger et al.	
	189.	2012/000878 (also published as US 9,392,902)	WO	A2	01/05/2015	Parentes et al.	
	190.	2012/007257 (also published as US 9,290,317)	WO	A1	01/19/2012	Quinn et al.	
	191.	2012/009668 (also published as US 2013/0209622)	WO	A1	01/19/2012	Fountain et al.	
	192.	2012/019902	WO	A1	02/16/2012	Favero et al.	

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	Attorney Docket Number	1859.029USC12

		(also published as US 9,808,112)					
	193.	2012/038063 (also published as US 8,916,220)	WO	A1	03/29/2012	Mahlich	
	194.	2012/057257	WO	A1	05/03/2012	Fujiki et al.	
	195.	2012/080928 (also published as US 2013/0327223)	WO	A1	06/21/2012	Bartoli et al.	
	196.	2012/100977 (also published as US 9,415,931)	WO	A1	08/02/2012	Gerbaulet et al.	
	197.	2012/104760	WO	A1	08/09/2012	Bartoli et al.	
	198.	2012/135204 (also published as US 2014/0348984)	WO	A1	10/04/2012	Zeller et al.	
	199.	2012/175985 (also published as US 2014/0287104)	WO	A1	12/27/2012	Peter et al.	
	200.	2013/008012 (also published as US 2014/0220191)	WO	A2	01/17/2013	Kelly et al.	
	201.	2013/032330 (also published as US 2014/0178538)	WO	A1	03/07/2013	Husband et al.	
	202.	2013/043048 (also published as US 2014/0287105)	WO	A1	03/28/2013	Husband et al.	
	203.	2013/136209 (also published as US 2016/0037961)	WO	A1	09/19/2013	Digiuni	
	204.	2013/171663 (also published as US 2015/0128525)	WO	A1	11/21/2013	Bartoli et al.	
	205.	2013/189923 (also published as US 2015/0175347)	WO	A1	12/27/2013	Empl	
	206.	2014/001563 (also published as US 2015/0158666)	WO	A1	01/03/2014	Krueger et al.	
	207.	2014/001564	WO	A1	01/03/2014	Krueger et al.	

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		(also published as US 2015/0158665)					
	208.	2014/004231	WO	A1	01/03/2014	Buscemi et al.	
	209.	2014/004564	WO	A1	01/03/2014	Bachar et al.	
	210.	2014/006048 (also published as US 2015/0173558)	WO	A2	01/09/2014	Cross et al.	
	211.	2014/090567 (also published as US 20150314954)	WO	A1	06/19/2014	Empl	
	212.	2014/102702 (also published as US 2015/0329282)	WO	A1	07/03/2014	Bartoli et al	
	213.	2014/127863 (also published as US 2015/0375926)	WO	A1	08/28/2014	Fischer	
	214.	2015/028425 (also published as US 2016/0194146)	WO	A2	03/05/2015	Schelch et al.	
	215.	2015/062703 (also published as US 2016/0251150)	WO	A1	05/07/2015	Macchi et al.	
	216.	2015/075584	WO	A1	05/28/2015	Accursi	
	217.	2015/107484	WO	A1	07/23/2015	Rivola et al.	
	218.	2016/077916	WO	A1	05/26/2016	Hanneson et al.	
	219.	94/01344 (also published as US 6,025,000)	WO	A1	01/20/1994	Fond et al.	
	220.	98/51396	WO	A1	11/19/1998	Timmermann et al.	X
	221.	99/03753	WO	A1	01/28/1999	Yoakim et al.	
	222.	99/58035 (also published as US 5,895,672)	WO	A1	11/18/1999	Cooper	

NON-PATENT LITERATURE DOCUMENTS

Examiner Initial*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1.	Rawle, Alan, "Particle Sizing – An Introduction" 2012; Silver Colloids, Edition or volume on Colloidal Silver.	
	2.	Decision on Appeal before the Patent Trial and Appeal Board for Appeal No. 2017-007984 dated May 10, 2019.	

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	3.	Notice of Opposition regarding EP3023362 filed July 30, 2018.	
	4.	Search Report for CN201180035944 mailed September 25, 2014.	
	5.	First Office Action for Application No. CN201180035944 mailed October 10, 2014.	
	6.	Second Office Action for Application No. CN201180035944 mailed April 21, 2015.	
	7.	Third Office Action for Application No. CN201180035944 mailed November 12, 2015.	
	8.	Notification to Grant Patent for Application No. CN201180035944 mailed May 25, 2016.	
	9.	Search Report for CN201610644043 mailed May 11, 2018	
	10.	First Office Action for CN201610644043 mailed May 28, 2018	
	11.	Search Report and Written Opinion for PCT/EP2011/003677 mailed July 22, 2011.	
	12.	Search Report and Written Opinion for Application No. EP 15174333.3 dated November 3, 2015. (EP2952453)	
	13.	Office Action for Application No. EP 15174333.3 dated August 16, 2016. (EP2952453)	
	14.	Search Report and Written Opinion for Application No. EP 15173071.0 dated November 5, 2015. (EP2957525)	
	15.	Office Action for Application No. EP 15173071.0 dated November 5, 2015. (EP2957525)	
	16.	Third party observation for Application No. EP2957525 dated September 30, 2016.	
	17.	Search Report and Written Opinion for Application No. EP 15197332.8 dated April 12, 2016. (EP3023361)	
	18.	First Office Action for Application No. EP 15197332.8 dated January 19, 2017. (EP3023361)	
	19.	Second Office Action for Application No. EP 15197332.8 dated May 24, 2017. (EP3023361)	
	20.	Third Office Action for Application No. EP 15197332.8 dated November 2, 2017. (EP3023361)	
	21.	Search Report and Written Opinion for Application No. EP 15197336.9 dated April 4, 2016 (EP3023362)	
	22.	Search Report and Written Opinion for Application No. EP 15197338.5 dated April 7, 2016 (EP3023363)	
	23.	Search Report for Application No. JP 2013-520009 dated November 25, 2014. (JP5946828)	
	24.	First Office Action for Application No. JP 2013-520009 dated December 10, 2014. (JP5946828)	
	25.	Second Office Action for Application No. JP 2013-520009 dated August 19, 2015. (JP5946828)	

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	26.	Decision to Grant for Application No. JP 2013-520009 dated April 28, 2016. (JP5946828)	
	27.	Search Report for Application No. JP 2016-032427 dated November 21, 2016. (JP2016163691)	
	28.	First Office Action for Application No. JP 2016-032427 dated November 28, 2016. (JP2016163691)	
	29.	Second Office Action for Application No. JP 2016-032427 dated June 20, 2017. (JP2016163691)	
	30.	Search Report for Application No. JP 2017-034769 dated November 15, 2017. (JP2017148511)	
	31.	Office Action for Application No. JP 2017-034769 dated January 30, 2018. (JP2017148511)	
	32.	Office Action for Application No. KR 10-2013-7004356 dated April 5, 2018. (KR20137004356)	
	33.	Office Action for Application No. 10-2017-7019956 dated April 10, 2018. (KR20170087528)	
	34.	Opposition Request against European Patent No. EP 3 023 362 dated July 01, 2019.	
	35.	Notice of Opposition for Application No. 19165223.9 dated February 24, 2020.	
	36.	Notice of Opposition for European Patent No. EP3521208 granted February 19, 2020.	
	37.	Opposition against European Patent No. EP3521208; Application No. 19165223.9 granted February 19, 2020.	
	38.	Communication of Notice of Opposition dated January 27, 2020 for Application No. 19165219.7	
	39.	English Translation of JP2003235733	
	40.	Wikipedia definition of "Deep Drawing" http://en.wikipedia.org/wiki/Deep_Drawing	
	41.	Wikipedia definition of "Tiefziehen" http://de.wikipedia.org/wiki/Tiefziehen	
	42.	Wikipedia definition of "Stamping (metalworking)" https://en.wikipedia.org/wiki/Stamping_(metalworking)	
	43.	Wikipedia definition of "Barcode"	
	44.	Regulation (EC) No 1935/2004 of the European Parliament and of the Council of 27 October 2004" Official of the European Union	
	45.	Brief Communication for Opposition Proceedings for Appl. 15197336.9, dated March 19, 2020	
	46.	Oral Letter regarding the opposition Procedure dated March 16, 2020 for EP 3023362	
	47.	Opposition oral letter regarding the opposition procedure dated March 16, 2020, for EP 023362	
	48.	Annex to the Communication Opposition Appln No. 15197336.9; 2020	

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	Attorney Docket Number	1859.029USC12

	49.	Brief Communication-Opposition Proceedings for Appl. No. 15197336.9 dated January 8, 2020	
	50.	Letter regarding Opposition Procedure for EP Patent No. 3023362 dated December 23, 2019	
	51.	Brief Communication for Appl No 15197336.9 dated October 15, 2019	
	52.	"Information technology – Automatic identification and data capture techniques – EAN/UPC bar code symbol specification" Second Edition: December 15, 2009	
	53.	Letter accompanying subsequently filed items for EP3023362, KRO-44; October 10, 2019.	
	54.	Brief Communication – Opposition Proceedings for Appl No. 15197336.9 dated July 23, 2019	
	55.	Letter accompanying subsequently filed items for EP3023362 1038-CMS-O; July 17, 2019	
	56.	Brief Communication – Opposition proceedings for Appln No. 15197336.9 dated July 12, 2019	
	57.	Opposition Procedure for EP Patent No. EP 3023362 dated July 1, 2019	
	58.	Miscellaneous requests concerning client data EPO – June 12, 2019	
	59.	Letter regarding the Opposition Procedure KRO-44/FWJPL dated March 20, 2019	
	60.	Ralf Jesse, "Barcode" Gutachten zur Frage Begriffle, Bitcode/Binacode; Patents EP 3023362; May 19, 2019	
	61.	"Information technology – Automatic identification and data capture techniques – Bar code verifier conformance specification – Part 1: Linear symbols" May 20, 2019 10:12	
	62.	"Information technology – Automatic identification and data capture techniques – Bar code print quality test Spec Linear Symbols" German Version: EN ISO/IEC 15416:2001: 1998-02	
	63.	Declaration under 27 C.F.R. for Appl No. 13/697,297; August 15, 2016	
	64.	Wikipedia "Binarcode" https://de.wikipedia.org/wiki/Binarcode	
	65.	Rosenbaum, Jessie, "Bar-Code" Theorie Lexikon Software; 2000	
	66.	Potter Mathia, "BARCODE" Euinfuhrung und Andwendungen; 1993	
	67.	Oliver Rosenbaum "Das Barcode-Lexicon" edition advanced: cbhv; 1997	
	68.	Fairley Michael "Codes and Coding Technology" LCGS, FIP3 and FLOM3: A Labels & Labeling Publication 2015	
	69.	Claims – Amended Claims with annotations-2	
	70.	Claims – 2019-05-20 Amended Claims with Annotations	
	71.	Auxiliary request during Opposition procedure – 2019-05-20	
	72.	Letter regarding opposition procedure for EP 3023362 dated March 4, 2019	
	73.	Definition of Barcode by Merriam-Webster https://www.merriam-webster.com/dictionary/barcode	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Attorney Docket Number	1859.029USC12

	74.	Barcode-Wikitionary "Barcode" https://de.wikitionary.org/wiki/Barcode 2018	
	75.	Strichcode – Wikipedia "Strichcode" https://de.wikiepdia.org/wiki/strichcode	
	76.	Reply of the patent proprietor to the notice of opposition 2019-02-11; Appln No. 151973366.9	
	77.	Notice of Opposition against European Patent No. EP 3023362 dated July 30, 2018	
	78.	Notice of Opposition to a European patent, Patent No. EP3023362 dated July 24, 2018.	
	79.	Specification NP-C2.03-02-SP-04-2 Membrane	
	80.	Specification NP-C2.03-01-SP-01-4 empty capsule	
	81.	Marketing brochure "Nespresso Varietäten mit 5 neuen Grand Crus"	
	82.	Photo taken in Nespresso store	
	83.	Marketing brochure "i6 Grands Crus – geschaffen um Ihre Sinne zu ilberraschen "	
	84.	RTS online article	
	85.	Invoice for various Nespresso capsules, dated May 04, 2009	
	86.	Invoice for various Nespresso capsules, dated August 10, 2009	
	87.	Invoice for various Nespresso capsules, dated December 02, 2009	
	88.	Invoice for various Nespresso capsules, dated May 18, 2009	
	89.	Invoice for various Nespresso capsules, dated October 21, 2008	
	90.	Invoice for various Nespresso capsules, dated June 24, 2009	
	91.	Invoice for various Nespresso capsules, dated May 19, 2008	
	92.	Invoice for various Nespresso capsules, dated September 10, 2008	
	93.	Invoice for various Nespresso capsules, dated February 17, 2009	
	94.	Invoice for various Nespresso capsules, dated December 22, 2008.	
	95.	User manual for the Tassimo@ brewing machine	
	96.	Web article discussing the T-discs@ cartridges	
	97.	Regulation No. 817.023.21 of the EDI on consumer goods	
	98.	Regulation No.8 17.022.3 1of the EDI on the additives permitted in foodstuffs	
	99.	Regulation of the Swiss Federal Council on Foodstuffs and Consumer Goods	
	100.	"European Printing Ink Association " Guideline on Printing Inks	
	101.	leaflet on printing inks for food packages from the division "Printing Inks" of the Association of the German Paint and Printing Ink Industry	
	102.	EuPIA Exclusion List for Printing Inks and Related Products	
	103.	EuPIA Guideline on Good Manufacturing Practices for the Production of Packaging Inks formulated for use on the non-food	

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		contact surfaces of food packaging and articles intended to come into contact with food	
	104.	Commission Regulation (EC) No 2023/2006	
	105.	Council Directive 89/109/EEC relating to materials and articles intended to come into contact with foodstuffs	
	106.	Policy Statement on Packaging Inks applied to the non-food contact surface of Food Packaging of the public health committee of the council of Europe	
	107.	Nestle Guidance Note on Packaging Inks	
	108.	Council Directive on the colouring matters authorised for use in foodstuffs intended for human consumption	
	109.	Council Directive 89/107/EEC on the approximation of the laws of the Member States concerning food additives authorized for use in foodstuffs intended for human consumption	
	110.	European Parliament and Council Directive 94/36/EC on colours for use in foodstuffs	
	111.	Excerpt from the textbook "Plastics Packaging – Properties, Processing, Applications and Regulations" by Selke/Culter/Hernandez	
	112.	"Lexikon Verpackungstechnik" by Bleisch/Goldhahn/Schricker/Vogt;	
	113.	Paper titled "Aromaveranderung von vakuumverpacktem Kaffee bei unterschiedlichen Packstoffen" by Lindner-Steinert/Zou	
	114.	Paper "Die flexible Verpackung von morgen – Anforderungen an die Veredler" by Agulla/Langowski	
	115.	Excerpt from publication "Grundziige der Lebensmitteltechnik" of 2004 by Tscheuschner	
	116.	Excerpt from publication "Produkt-bkobilanz vakuumverpackter Rostkaffee" of 1999 by Diers/Langowski/Pannkoke	
	117.	3rd Party Observations in EP Patent Application No. 19 165 220.5 (3 533 726), dated June 19, 2020.	
	118.	Opposition Against EP Patent No. EP 3 023 362 dated July 13, 2020.	
	119.	Letter dated September 30, 2020 from file of US Application No. 16/517,054 (by SOCIÉTÉ DES PRODUITS NESTLÉ S.A.)	
	120.	Supplemental arguments filed by Societe des Produits Nestle S.A. in the opposition against European Patent No. EP3521209, dated January 07, 2021.	
	121.	Suggestion for Declaration of Interference dated Sept. 30, 2019	
	122.	Petition for Inter Partes Review of U.S. Patent No. 10,870,531 (IPR2021-01223), dated July 12, 2021.	
	123.	Petition for Inter Partes Review of U.S. Patent No. 10,858,176 (IPR2021-01221), dated July 12, 2021.	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	124.	Petition for Inter Partes Review of U.S. Patent No. 10,858,177 (IPR2021-01222), dated July 12, 2021.	
	125.	Declaration of Michael Jobin, Exhibit 1003 from Petition for Inter Partes Review of U.S. Patent No. 10,858,177 (IPR2021-01222), dated July 12, 2021.	
	126.	Declaration of Michael Jobin, Exhibit 1003 from Petition for Inter Partes Review of U.S. Patent No. 10,858,176 (IPR2021-01221), dated July 12, 2021.	
	127.	Declaration of Michael Jobin, Exhibit 1003 from Petition for Inter Partes Review of U.S. Patent No. 10,870,531 (IPR2021-01223), dated July 12, 2021.	
	128.	Nespresso's Preliminary Invalidity Contentions from US District Court Central District of California Case No. 2:21-cv-3402 GW(ARGx), dated September 22, 2021.	
	129.	English Translation of JPH1-233688	
	130.	Submission Dated April 5, 2019, European Patent Number EP3023362	
	131.	Third party Observations EP3533726, dated August 26, 2021.	
	132.	Opposition against European Patent Number EP3521210; dated October 7, 2020	
	133.	Opposition against European Patent Number EP3521210; dated January 8, 2020.	
	134.	Submission for EP Patent No. 3023362, dated January 7, 2021, In response to the Provisional Opinion.	
	135.	Submission for European Patent Number EP3023362, dated March 26, 2021.	
	136.	Submission for European Patent Number EP3023362, dated March 26, 2021, In response to the Provisional Opinion	
	137.	Submission for European Patent No. EP3023362, dated April 27, 2021.	
	138.	Submission for European Patent No. EP3521207, dated March 15, 2021.	
	139.	Submission for European Patent Number EP3521207, dated October 21, 2020.	
	140.	Submission for European Patent Number EP3521208, dated March 12, 2021.	
	141.	Submission for European Patent Number EP3521208, dated October 29, 2020.	
	142.	Submission for European Patent Number EP3521209, dated January 7, 2021.	
	143.	Submission for European Patent Number EP3521209, dated October 21, 2020.	
	144.	Wikipedia definition of "Spritzgieben" https://de.wikipedia.org/wiki/Spritzgie%C3%9Fen	
	145.	Definition of "Werkstoff" https://www.dwds .de/wb/Werkstoff	
	146.	Definition of "Filter" https://www.dwds.de/wb/Filter	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	First Named Inventor	Marc Krüger
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	Examiner Name	TBA /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

	147.	Convenience First: Espresso Pods and Capsules, January 2009. https://www.coffeereview.com/convenience-first- espresso-pods-and-capsules	
	148.	ESPRESSO EN CAPSULE, March 2021. https://www.swissinfo.ch/fre/le-march%C3%A9-du-caf%C3%A9-en-capsules-explose-et-inqui%C3%A8te/6421908	
	149.	Wiktionary definition of the expression "à base de" available online at: https://fr.wiktionary.org/wiki/%C3%A0_base_de:	
	150.	D130, the Robert definition of "base" available online at: https://dictionnaire.lerobert.com/definition/base	
	151.	Key Science Physics Matter and Energy Strength https://books.google.ch/books?id=uSPzV9R08nsC&pg =PA36%20&dq=%22corrugated +plastic%22+packaging&hl=fr&sa =X&ve%20d=2ah%20U%20KEwjvlrqZxaXv%20Ah% 20Vkx4sKHYIZAHk4PBDoAT %20AIegQIC%20RAC#v=onepage&q	
	152.	Key Science Chemistry, toughness and Brittleness https://books.google.ch/books?id=CK8OgULw4oMC&pg =PA 1 1 &dq=%22 *corrugated*+plastic%22 +packaging &h l=fr &sa=X& *ved=2ahUKEwj lrqZxaXvAhVkx4sKHYIZAHk4PBDoATAHegQ* ICBAC#v= onepage&q=%22corrugated%20plastic%22%20pa ckaging&f=false	
	153.	Reusable Transport Packaging 1973 https://books.google.ch/books?id=fitxOnnXD_wC&q=%22corr%20ugated+ plastic%22&dq=%22c%20orrugated+plastic%22&h%20l=fr%20&sa=X &%20ved =2ah%20U%20KEwj787n%20lvqX%20vAhUlq QKHfiDDOq4PBDoATAAegQIARAC	
	154.	Annex illustrating the handling of a double patenting issue	
	155.	Opposition Request against European Patent No. EP 2525692B1; dated July 29, 2015.	
	156.	Strategic Innovation 1999 https://books.google.ch/books?id=rTKHB-9YUbwC&pg=PA%2018&dq=coffee+capsules&hl=fr&sa=X&ved=%20 2ahUKEwjFgvDQhaXvAhWYA2MBHdhuDMsQ6AEwBXoEC%20A% 20YQAg#v=onepaQe&q=coffee%20capsules&f=false	
	157.	LE MARCHE DU CAFE EN CAPSULES EXPLOSE ET INQUIETE https://pages.rts.ch/emissions/abe/515911-espresso-encapsule-abe-a-souleve-lecouvercle.html	

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	Art Unit	TBA
	Examiner Name	TBA /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

	158.	KAFFEEPADS UNO -KAPSELN KONNEN ZUR KOSTENFALLE WERDEN https://www.t-online.de/leben/id_41150796/kaffeekaffeepads-und-kapseln-koennen-zurkostenfalle-werden.html	
	159.	LA DOSETTE DE CAFE: L'ENVIRONNEMENT BOIT LA TASSE https://www.consoglobe.com/dosette-cafe-environnement-boit-tasse-1957-cg	
	160.	PREPARATORY STUDIES FOR ECODESIGN https://www.eceee.org/static/media/uploads/site-2/ecodesign/products/lot25-non-tertiary coffee-machines/final report-task_1_.pdf	
	161.	ENERGIE-ENVIRONNEMENT.CH MACHINE A CAFÉ https://www.energie-environnement.ch/appareils-electromenagers/machine-a-cafe	
	162.	IS THERE A SERIOUS PROBLEM WITH COFFEE CAPSULES? https://www.bbc.com/news/magazine-35605927	
	163.	FRESHNESS INDICES OF ROASTED COFFEE https://www.researchgate.net/publication/262211090_Freshness_Indices_of_Roasted_Coffee_Monitoring_the_Loss_of_Freshness_for_Single_Serve_Capsules_and_Roasted_Whole_Beans_in_DifferentPackaging	
	164.	COMPARATIVE LIFE CYCLE ASSESSMENT https://uwspace.uwaterloo.ca/bitstream/handle/10012/12860/Li_Jinqxi.pdf?sequence=5&isAllowed=Y	
	165.	SCHNITT-, STANZ- UNO ZIEHWERKZEUGE https://books.google.ch/books?id=-qCnBgAAQBAJ&pg=PA386&dq=tiefziehen+aluminiumblech&hl=en&sa=X& ved=2ah U KEwj HybqNx6L v Ah U DwKQKHSNsAbEQ6AEwA XoECAgQAg#v=onepage&q=tiefziehen%20aluminiumblech&f=false	
	166.	THERMO-MECHANICAL PROCESSING OF METALLIC MATERIALS https://books.google.ch/books?id=VE20YVDTBZUC&pg=PA370&dq=%22deep+drawing%22+%22aluminium+sheet%22&hl=fr&sa=X&ved=2ah U KEwj3ouSI0qL v AhWQyqQKH RbqD?YQ6AEwBHoECAUQAg#v=onepage&q=%22deep%20drawing%22%20%22aluminium%20sheet%22&f=false	
	167.	PACKAGING: SPECIFICATIONS https://books.google.ch/books?id=N1 TLbP9CiDUC&pg=PA26	

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		5&Ipg=PA265&dq=aluminum+can+barcode+print++varnish&source=bl&ots=rJuPKZptU3&sig=ACfU3U0KHflM3Wh2Gw0zEblq7DDXt5TQxQ&hl=en&sa=X&ved=2ahUKEwjW0NmK64LvAhVnCWMBHRIYCloQ6AEwEXoECA0QAw#v=onepage&q=aluminum%20can%20barcode%20print%20%20varnish&f=fAlse	
	168.	IMPROVING TRACEABILITY IN FOOD PROCESSING AND DISTRIBUTION https://books.google.ch/books?id=v75QAwAAQBAJ&gg=PA209&dg=barcode+ink+gackaging+food&hl=fr&sa=X&ved=2ahUKEwiQ2JjVvKjvAhUDIMUKHU3gDPYQ6AEwBHoECAYQAg#v=oneQage&g=barcode%20ink%20gackaging%20food&f=false	
	169.	FOOD PACKAGING https://books.google.ch/books?id=NFRR6GayR74C&pg=PA265&dq=welding+plastic+packaging+food&hl=fr&sa=X&ved=2ahUKEwiwhqff1 KPvAhWMl4sKHRXUDls4HhDoATACegQIBBAC#v=onepage&q=welding%20plastic%20packaging%20food&f=false	
	170.	COFFEE LOVE https://books.google.ch/books?id=0OxRp3jlQlsC&pg=PA 14&dq=coffee+capsu les& hl=fr &sa=X& ved=2ah U KEwj F0qvMk6XvAhWTBGMBHYddCp04ChDoATAlegQIAhAC#v=onepage&Q=coffee%20capsules&f=false	
	171.	STRUCTURAL DESIGN PROCEDURE https://books.google.ch/books?id=4L64mKIG_ 4UC&pg=PA 1&dq=%22corrugated+plasti c%22&h l=fr&sa=X& ved=2ah U KEwjlcz6uaXvAhWRzaQKHcQpAF4O6AEwAnoECAMQAg#v=onepage&q=%22corrugated%20plastic%22&f=false	
	172.	PACKAGE ENGINEERING https://books.google.ch/books?id=DydNAAAA YAAJ&q=%22corrugated+plastic%22&dq=%22corrugated+plastic%22&hl=fr&sa=X& ved=2ah U KEwiq296WvaXv Ah WI POwKHfcaDrk4KBDoATAGeQOIBBAC	
	173.	Exhibit A-1 – Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	174.	Exhibit A-2 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	175.	Exhibit A-3 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	176.	Exhibit A-4 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	177.	Exhibit A-5 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	

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	178.	Exhibit A-6 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	179.	Exhibit A-7 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	180.	Exhibit A-8 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	181.	Exhibit A-9 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	182.	Exhibit B-1 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	183.	Exhibit B-2 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	184.	Exhibit B-3 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	185.	Exhibit B-4 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	186.	Exhibit B-5 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	187.	Exhibit B-6 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	188.	Exhibit B-7 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	189.	Exhibit B-8 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	190.	Exhibit B-9 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	191.	Exhibit C-1 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	192.	Exhibit C-2 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	193.	Exhibit C-3 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	194.	Exhibit C-4 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	195.	Exhibit C-5 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	196.	Exhibit C-6 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	197.	Exhibit C-7 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	198.	Exhibit C-8 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	

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Nespresso USA, Inc. Ex. 1002

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	First Named Inventor	Marc Krüger
	Art Unit	TBA
	Examiner Name	TBA /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

	199.	Exhibit C-9 - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	200.	Exhibit A - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	201.	Exhibit B - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	
	202.	Exhibit C - Nespresso's Preliminary Invalidity Contentions dated September 22, 2021.	

EXAMINER SIGNATURE			
Examiner Signature	/JIMMY CHOU/	Date Considered	03/24/2022
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2,272	99/286,289R,295,302R,307,323.ccls.	USPAT	ADJ	ON	2013/04/30 14:51
S2	206	99/286,289R,295,302R,307,323.ccls. and (capsule)	USPAT	ADJ	ON	2013/04/30 14:52
S3	466	99/286,289R,295,302R,307,323.ccls. and (capsule)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/04/30 14:52
S4	787	99/286,289R,295,302R,307,323.ccls. and (capsule or cartridge)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/04/30 16:11
S5	321	S4 not S3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/04/30 16:11
S6	519	426/77,78,79,112,433,115.ccls. and (capsule or cartridge)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/04/30 17:45
S7	287	S6 not S4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/04/30 17:45
S8	446	426/77,78,79,112,433,115.ccls. and (capsule or cartridge) and (beverage or coffee)	US-PGPUB; USPAT; USOCR; FPRS;	ADJ	ON	2013/04/30 17:45

			EPO; JPO; DERWENT; IBM_TDB			
S9	446	426/77,78,79,112,433,115.ccls. and ((capsule or cartridge) and (beverage or coffee))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/04/30 17:45
S10	17	"7604826"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/04/30 19:20
S11	2	"20110030563"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/04/30 20:26
S15	9	"7604826"	USPAT	ADJ	ON	2013/05/01 13:17
S16	9	"7604826"	USPAT	ADJ	ON	2013/05/01 15:33
S17	0	"20110030563"	USPAT	ADJ	ON	2013/05/01 15:33
S18	1	"20110030563"	US-PGPUB; USPAT	ADJ	ON	2013/05/01 15:33
S19	1	"20080105131"	US-PGPUB; USPAT	ADJ	ON	2013/05/01 15:34
S20	59	((KON) near2 (WONG)).INV.	US-PGPUB; USPAT; USOCR	ADJ	ON	2013/05/01 15:41
S21	24	((GUIDO) near2 (BRANDT)).INV.	US-PGPUB; USPAT; USOCR	ADJ	ON	2013/05/01 15:46
S22	42	((HENDRIK) near2 (KOELING)).INV.	US-PGPUB; USPAT; USOCR	ADJ	ON	2013/05/01 15:47
S23	30	((RALF) near2 (KAMERBEEK)).INV.	US-PGPUB; USPAT; USOCR	ADJ	ON	2013/05/01 15:47

S24	17	((AREND) near2 (BIESHEUVEL)).INV.	US-PGPUB; USPAT; USOCR	ADJ	ON	2013/05/01 15:47
S25	1	"20080069550"	USPAT	ADJ	ON	2014/01/17 13:54
S26	5	"20080069550"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/17 13:54
S27	1	"13323430"	USPAT	ADJ	ON	2014/01/27 13:10
S28	2	WO "02081337"	USPAT	ADJ	ON	2014/01/27 13:14
S29	21	WO "02081337"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/27 13:14
S30	3	CN "101309840"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/27 13:35
S31	3	CN "101410041"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/27 13:49
S32	3	CN "101421172"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/27 13:50
S33	4	CN "1125681"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	ADJ	ON	2014/01/27 13:55

			DERWENT; IBM_TDB			
S34	27	GB "1256247"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/27 13:56
S35	2	JP "01310612"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/27 13:57
S36	2	JP "02231043"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/27 13:57
S37	2	CN "1612831"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/27 13:58
S38	3	JP "2000336570"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/27 13:58
S39	5	Wo "2004064582"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/27 14:05
S40	3	JP "2000336570"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	ADJ	ON	2014/01/27 14:11

			DERWENT; IBM_TDB			
S41	8	WO "2008078990"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/27 14:12
S42	11	WO "2008117329"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/27 14:14
S43	11	WO "2008117329"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/27 14:19
S44	8	Wo "2008078990"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/27 14:19
S45	1	JP "62188626"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/27 14:19
S46	5	JP "63047890"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/27 14:19
S47	0	WO "2008132571"	US-PGPUB; USPAT; USOCR	ADJ	ON	2014/02/04 12:04
S48	33	WO "2008132571"	US-PGPUB; USPAT;	ADJ	ON	2014/02/04 12:04

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S49	2	"20120258211"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/02/04 12:28
S50	2	"20120258221"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/02/04 12:28
S51	116	"5794519"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/02/04 13:13
S52	107	"2968560"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/02/04 13:13
S53	871	"99".clas. and (pressure with (capsule or cartridge))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/02/04 13:16
S54	254	"99".clas. and (pressure with (capsule or cartridge)) same bar$1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/02/04 13:16
S55	17	"8220382"	US-PGPUB; USPAT; USOCR;	ADJ	ON	2014/02/04 19:38

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S56	3	"8220382"	USPAT	ADJ	ON	2014/02/10 15:31
S57	1	"0376844"	USPAT	ADJ	ON	2014/02/10 16:27
S58	3	"13326291"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/02/10 16:47
S59	2,373	99/286,289R,295,302R,307,323.ccls. \	USPAT	ADJ	ON	2014/02/10 20:32
S60	409	99/286,289R,295,302R,307,323.ccls. and (cartridge or capsule)	USPAT	ADJ	ON	2014/02/10 20:32
S61	911	99/286,289R,295,302R,307,323.ccls. and (cartridge or capsule)	US-PGPUB; USPAT; USOCR	ADJ	ON	2014/02/10 20:32
S62	3	"8220382"	USPAT	ADJ	ON	2014/02/10 20:34
S63	1	"7807939"	USPAT	ADJ	ON	2014/11/19 21:43
S64	2	"20100317172"	US-PGPUB; USPAT	ADJ	ON	2014/11/19 21:44
S65	8	"6164956"	USPAT	ADJ	ON	2014/11/20 12:30
S66	1	JP "2001012703"	USPAT; JPO	ADJ	ON	2014/11/20 12:40
S67	30	WO "2006030461"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/11/20 13:21
S68	20	"8220382"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/11/20 14:01

S69	877	99/286,289R,295,302R,307,323.ccls. and (capsule) and (coffee)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/11/20 20:21
S70	14	WO "2008125256"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/11/20 21:25
S71	30	WO "2006030461"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/11/20 22:47
S72	30	WO "2006030461"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/11/20 22:54
S73	25	"7552672"	USPAT	ADJ	ON	2014/11/21 01:58
S74	0	EP "2298671"	USPAT; EPO	ADJ	ON	2014/11/21 02:35
S75	4	EP "2298671"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/11/21 02:36
S76	300	99/286,289R,295,302R,307,323.ccls. and (capsule)	USPAT	ADJ	ON	2014/11/21 03:03
S77	982	426/77,78,79,112,433,115.ccls. and (capsule or cartridge)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/11/21 03:03

S78	4	EP "2298671"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/11/21 03:31
S79	2	"20120263833"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/11/21 14:28
S80	65	((Kon) near2 (Wong)).INV.	US-PGPUB; USPAT; USOCR	ADJ	ON	2014/11/21 14:45
S81	28	((Guido) near2 (Brandt)).INV.	US-PGPUB; USPAT; USOCR	ADJ	ON	2014/11/21 14:47
S82	41	((Ralf) near2 (Kamerbeek)).INV.	US-PGPUB; USPAT; USOCR	ADJ	ON	2014/11/21 15:39
S83	24	((Arend) near2 (Biesheuvel)).INV.	US-PGPUB; USPAT; USOCR	ADJ	ON	2014/11/21 15:39
S84	3	"13326291"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/11/21 16:12
S85	59	"5402707"	USPAT	ADJ	ON	2015/03/08 20:02
S86	26	"7552672"	USPAT	ADJ	ON	2015/03/09 14:08
S87	3	EP "1775234"	USPAT; EPO	ADJ	ON	2015/03/09 14:18
S89	1,549	99/286,289R,295,302R,307,323.ccls. and (capsule or cartridge or (K adj cup))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2015/03/09 14:34
S90	22	99/286,289R,295,302R,307,323.ccls. and (K adj cup)	US-PGPUB; USPAT;	ADJ	ON	2015/03/09 14:35

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S91	35	426/77,78,79,112,433,115.ccls. and (K adj3 cup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2015/03/09 14:35
S92	0	A47J 31/42.cpc. and (K adj3 cup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2015/03/09 14:37
S93	0	A47J 31/42.cpc. and (capsule or cartridge)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2015/03/09 14:37
S94	0	A47J 31/42.cpc. and (coffee)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2015/03/09 14:37
S95	0	A47J 31/42.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2015/03/09 14:37
S96	135	A47J31/42.cpc. and ((k adj3 cup) or cartridge or capsule)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2015/03/09 14:37
S97	0	EP1775234	USPAT	ADJ	ON	2015/03/09 14:40

S98	0	EP1775234	USPAT; EPO	ADJ	ON	2015/03/09 14:40
S99	3	EP "1775234"	USPAT; EPO	ADJ	ON	2015/03/09 14:40
S100	3,379	B65D85/8043.cpc. and (capsule)	FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2015/11/13 14:45
S101	923	B65D85/8043.cpc. and (capsule or cartridge) and (pierc$3 or inject$3)	FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2015/11/13 14:46
S102	4	"8220382"	USPAT	ADJ	ON	2016/03/02 15:37
S103	121	"4136202"	USPAT	ADJ	ON	2016/03/02 15:38
S104	4	"8220382"	USPAT	ADJ	ON	2016/03/02 15:49
S105	1	"20100064899"	USPAT	ADJ	ON	2016/03/02 15:49
S106	2	"20100064899"	US-PGPUB; USPAT	ADJ	ON	2016/03/02 15:49
S107	2	"13326291"	US-PGPUB; USPAT	ADJ	ON	2016/03/02 15:50
S108	4	"8220382"	USPAT	ADJ	ON	2016/03/03 16:34
S109	121	"4136202"	USPAT	ADJ	ON	2016/03/03 16:34
S110	1	"20100064899"	USPAT	ADJ	ON	2016/03/03 16:34
S111	2	"20100064899"	US-PGPUB; USPAT	ADJ	ON	2016/03/03 16:34
S112	1	"20080245236"	US-PGPUB; USPAT	ADJ	ON	2016/03/03 16:38
S113	2	"20100101428"	US-PGPUB; USPAT	ADJ	ON	2016/03/03 16:39
S114	2	"20100037779"	US-PGPUB; USPAT	ADJ	ON	2016/03/03 16:42
S115	2	"20090126577"	US-PGPUB; USPAT	ADJ	ON	2016/03/03 16:43
S116	1	"20100064899"	USPAT	ADJ	ON	2016/03/04 10:04
S117	2	"20100064899"	US-PGPUB; USPAT	ADJ	ON	2016/03/04 10:04

S118	152	"5472719"	USPAT	ADJ	ON	2016/05/12 11:00
S119	2	EP "0507905"	USPAT	ADJ	ON	2016/05/12 11:04
S120	2	EP "0507905"	USPAT; EPO	ADJ	ON	2016/05/12 11:04
S121	18	EP "0507905"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2016/05/12 11:04
S122	1,960	99/286,289R,295,302R,307,323.ccls. and (capsule or cartridge or tray)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2016/05/12 20:31
S123	800	99/286,289R,295,302R,307,323.ccls. and (capsule or cartridge or tray) and (pierc$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2016/05/12 20:31
S124	0	A47J 31/42.cpc. and (capsule or cartridge) and (capsule or cartridge or tray) and (pierc$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2016/05/12 20:32
S125	0	A47J 31/42.cpc. and (capsule or cartridge) and (pierc$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2016/05/12 20:32
S126	0	A47J 31/42.cpc. and (capsule or cartridge)	FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2016/05/12 20:32
S127	15	JP "2000355375"	US-PGPUB; USPAT; USOCR; FPRS;	ADJ	ON	2017/01/05 14:31

			EPO; JPO; DERWENT; IBM_TDB			
S128	1	JP "06015879"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2017/01/05 14:34
S129	1	JP adj "06015879"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2017/01/05 14:38
S130	0	JP adj5 "015879"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2017/01/05 14:38
S131	1	JP near "015879"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2017/01/05 14:38
S132	6,230	B65D85/8043.cpc. and (capsule or cartridge)	FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2017/01/05 15:15
S133	14	B65D85/8043.cpc. and (capsule or cartridge) and ((pre adj3 cut$4) or (pre adj3 open$2))	FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2017/01/05 15:16
S134	537	B65D85/8043.cpc. and (capsule or cartridge) and (perforat$3)	FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2017/01/05 15:21
S135	790	426/115,425.ccls. and (capsule or cartridge)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	ADJ	ON	2018/01/05 14:24

			DERWENT; IBM_TDB			
S136	1,151	426/79,82,112,115,425,435.ccls. and (capsule or cartridge)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2018/01/05 14:27
S137	1	"14994648"	US-PGPUB; USPAT	ADJ	ON	2018/01/07 15:49
S138	16	WO "2006126230"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2018/01/08 11:04
S139	7	"7631594"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2018/01/08 12:57
S140	1	"14342722"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2018/01/08 13:40
S143	33	99/286,289R,295,302R,307,323.ccls. and ((capsule) and (piercing)).clm.	USPAT	ADJ	ON	2018/10/19 10:49
S144	2	"13326291"	US-PGPUB; USPAT	AND	ON	2018/10/19 11:13
S147	0	"15774789"	USPAT	OR	OFF	2019/02/15 14:38
S148	1	"15774789"	US-PGPUB; USPAT	AND	OFF	2019/02/15 14:38
S149	8	99/286,289R,295,302R,307,323.ccls. and (capsule or cartridge or tray) and ((damping or valve) near (control$4 adj5 flow adj5 rate))	US-PGPUB; USPAT; USOCR	ADJ	ON	2019/02/15 15:13
S150	3	99/286,289R,295,302R,307,323.ccls. and (capsule or cartridge or tray) near (control$4 adj5 flow adj5 rate)	US-PGPUB; USPAT; USOCR	ADJ	ON	2019/02/15 15:16

S151	3	99/286,289R,295,302R,307,323.ccls. and (capsule or cartridge) near (control$4 adj5 flow adj5 rate)	US-PGPUB; USPAT; USOCR	ADJ	ON	2019/02/15 15:16
S152	37	99/286,289R,295,302R,307,323.ccls. and (capsule or cartridge) same(control$4 adj5 flow adj5 rate)	US-PGPUB; USPAT; USOCR	ADJ	ON	2019/02/15 15:22
S153	37	99/286,289R,295,302R,307,323.ccls. and (capsule or cartridge) same (control$4 adj5 flow adj5 rate)	US-PGPUB; USPAT; USOCR	ADJ	ON	2019/02/15 15:22
S154	10	99/286,289R,295,302R,307,323.ccls. and (capsule or cartridge) and ((hermetically or airtight) near (lid or cover))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2019/02/15 17:08
S155	7	"2017073153"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2019/02/15 21:19
S156	0	"2017073153"	US-PGPUB; USPAT	ADJ	ON	2019/02/15 21:19
S157	0	"2017073153"	US-PGPUB; USPAT	ADJ	ON	2019/02/15 21:20
S158	0	JP "2017512535"	US-PGPUB; USPAT	ADJ	ON	2019/02/15 21:20
S159	3	JP "2017512535"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2019/02/15 21:20
S160	15	WO "2015136433"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2019/02/15 21:22
S161	2	"20070144355"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	ADJ	ON	2019/02/15 21:26

			DERWENT; IBM_TDB			
S162	3	"15774789"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2019/02/16 17:42
S163	1	"20070144355"	US-PGPUB; USPAT	AND	ON	2019/02/16 18:20
S164	56	99/286,289R,295,302R,307,323.ccls. and ((capsule or cartridge) near (deform or deformable))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2019/02/16 19:24
S165	15	WO "2015136433"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2019/02/16 20:06
S166	1,004	A47J31/0668.cpc. and (capsule or cartridge)	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2019/02/16 20:19
S167	1,083	A47J31/3623.cpc. and (capsule or cartridge)	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2019/02/16 20:19
S168	9,008	B65D85/8043.cpc. and (capsule or cartridge)	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2019/02/16 20:19
S169	240	426/77,78,79,112,433,115.ccls. and (capsule or cartridge) and (injecting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2019/02/16 20:43
S170	8	"8161866"	USPAT	AND	OFF	2021/02/10 14:47
S171	19	"8202560"	USPAT	AND	OFF	2021/02/10 14:47

S172	0	"15531329"	USPAT	AND	OFF	2021/02/10 14:48
S173	2	"15531329"	US-PGPUB; USPAT	AND	OFF	2021/02/10 14:48
S175	40	((("WONG") near3 ("Kon") near3 ("Euan") near3 ("Gerard"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2021/05/13 14:19
S176	14	EP "1775234"	USPAT	ADJ	ON	2021/05/13 17:06
S177	42	EP "1775234"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2021/05/13 17:06
S178	29	"8220382"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2021/05/13 17:15
S179	116	("20030172813" | "20040045443" | "20040188459" | "20050051478" | "20050205601" | "20050287251" | "20060019000" | "20060110507" | "20060174773" | "20060292012" | "20070068395" | "20070084352" | "20070186784" | "20070224319" | "20080095904" | "20080105131" | "20080115674" | "20080134902" | "20080216666" | "20080245236" | "20080317931" | "20090007794" | "20090007796" | "20090017177" | "20090126577" | "20090158938" | "20090205503" | "20090255410" | "20090280219" | "20100024658" | "20100037779" | "20100043644" | "20100043645" | "20100043646" | "20100064899" | "20100077928" | "20100101428" | "20100129512" | "20100154647" | "20100154651" | "20100186599" | "20100203208" | "20100288131" | "20100303964" | "20110030563" | "3615708" | "4321139" | "4417504" | "4846052" | "4859337" | "5325765" | "5327815" | "5398595" | "5402707" | "5649472" | "5762987" | "5826492" | "5840189" |	US-PGPUB; USPAT; USOCR	OR	OFF	2021/05/13 17:22

		"5897899" | "6079315" | "6082247" | "6142063" | "6182554" | "6440256" | "6589577" | "6606938" | "6607762" | "6644173" | "6645537" | "6655260" | "6658989" | "6666130" | "6672200" | "6708600" | "7165488" | "7279188" | "7347138" | "7360418" | "7377162" | "7398726" | "7490542" | "7513192" | "7523695" | "7543527" | "7552672" | "7604826" | "7624673" | "7640845" | "7703381" | "7815953" | "7836819" | "7854192" | "7856920" | "7856921" | "7930972" | "7946217" | "7993691" | "8147887" | "8161866" | "8161868" | "8202560" | "8220382" | "8304006" | "D408679" | "D452433" | "D452434" | "D462865" | "D474110" | "D474111" | "D489215").PN. OR ("D502362" | "D513572" | "D544299" | "D554299").PN. OR ("8846120").URPN.				
S180	4,062,133	WO "2008132571"	US-PGPUB; USPAT; USOCR	OR	OFF	2021/05/13 17:50
S181	17,497,581	WO "2008132571"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/05/13 17:50
S182	104	WO "2008132571"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/05/13 17:50
S183	104	WO "2008132571"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2021/05/14 01:34
S184	236	"6079315"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	AND	ON	2021/05/14 01:44

			DERWENT; IBM_TDB			
S185	14	"8220382"	US-PGPUB; USPAT	AND	OFF	2021/05/14 16:27
S186	2	"20080216666"	US-PGPUB; USPAT	AND	OFF	2021/05/14 16:32
S187	203	"6079315"	US-PGPUB; USPAT	AND	OFF	2021/05/14 16:55
S188	14	WO "2008132571"	US-PGPUB; USPAT	AND	OFF	2021/05/14 16:56
S189	104	WO "2008132571"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/05/14 16:56
S190	169	(US-0007794-$ | US-0007796-$ | US-0017177-$ | US-0019000-$ | US-0024658-$ | US-0030563-$ | US-0037779-$ | US-0043644-$ | US-0043645-$ | US-0043646-$ | US-0045443-$ | US-0051478-$ | US-0064899-$ | US-0068395-$ | US-0077928-$ | US-0084352-$ | US-0095904-$ | US-0101428-$ | US-0105131-$ | US-0110507-$ | US-0115317-$ | US-0115674-$ | US-0125256-$ | US-0126577-$ | US-0129512-$ | US-0134902-$ | US-0154647-$ | US-0154651-$ | US-0158938-$ | US-0172813-$ | US-0174773-$ | US-0186599-$ | US-0186784-$ | US-0188459-$ | US-0203208-$ | US-0205503-$ | US-0205601-$ | US-0216666-$ | US-0224319-$ | US-0245236-$ | US-0255410-$ | US-0258210-$ | US-0280219-$ | US-0287251-$ | US-0288131-$ | US-0292012-$ | US-0303964-$ | US-0317931-$ | US-1125681-$ | US-1612831-$ | US-2968560-$ | US-20030172813-$ | US-20040045443-$ | US-20040115317-$ | US-20040188459-$ | US-20050051478-$ | US-20050205601-$ | US-20050287251-$ | US-20060019000-$ | US-20060110507-$ | US-20060174773-$ | US-20060292012-$ | US-20070068395-$	US-PGPUB; USPAT	AND	OFF	2021/05/14 21:10

| US-20070084352-$ | US-20070186784-$ | US-20070224319-$ | US-20080095904-$ | US-20080105131-$ | US-20080115674-$ | US-20080125256-$ | US-20080134902-$ | US-20080216666-$ | US-20080245236-$ | US-20080317931-$ | US-20090007794-$ | US-20090007796-$ | US-20090017177-$ | US-20090126577-$ | US-20090158938-$ | US-20090205503-$ | US-20090255410-$ | US-20090280219-$ | US-20100024658-$ | US-20100037779-$ | US-20100043644-$ | US-20100043645-$ | US-20100043646-$ | US-20100064899-$ | US-20100077928-$ | US-20100101428-$ | US-20100129512-$ | US-20100154647-$ | US-20100154651-$ | US-20100186599-$ | US-20100203208-$ | US-20100288131-$ | US-20100303964-$ | US-20110030563-$ | US-20120258210-$ | US-3615708-$ | US-4136202-$ | US-4321139-$ | US-4417504-$ | US-4846052-$ | US-4859337-$ | US-5325765-$ | US-5327815-$ | US-5398595-$ | US-5402707-$ | US-5649472-$ | US-5762987-$ | US-5826492-$ | US-5840189-$ | US-5897899-$ | US-6079315-$ | US-6082247-$ | US-6142063-$ | US-6182554-$ | US-6440256-$ | US-6589577-$ | US-6606938-$ | US-6607762-$ | US-6644173-$ | US-6645537-$ | US-6655260-$ | US-6658989-$ | US-6666130-$ | US-6672200-$ | US-6708600-$ | US-7165488-$ | US-7279188-$ | US-7347138-$ | US-7360418-$ | US-7377162-$ | US-7398726-$ | US-7490542-$ | US-7513192-$ | US-7523695-$ | US-7543527-$ | US-7552672-$ | US-7604826-$ | US-7624673-$ | US-7640845-$ | US-7703381-$ | US-7836819-$ | US-7854192-$ | US-7856920-$ | US-7856921-$ | US-7930972-$ | US-7946217-$ | US-7993691-$ | US-8147887-$ | US-8161866-$ | US-8161868-$ | US-8202560-$ | US-8220382-$ | US-8304006-$ | US-

		8322271-$ | US-D408679-$ | US-D452433-$ | US-D452434-$ | US-D462865-$ | US-D474110-$ | US-D474111-$ | US-D489215-$ | US-D502362-$ | US-D513572-$ | US-D544299-$ | US-D554299-$).DID.				
S191	81	(BI-0507905-$ | AI-02081337-$ | AI-20030172813-$ | AI-20040045443-$ | AI-20040115317-$ | AI-20040188459-$ | AI-20050051478-$ | AI-20050205601-$ | AI-20050287251-$ | AI-20060019000-$ | AI-20060110507-$ | AI-20060174773-$ | AI-20060292012-$ | AI-2006045537-$ | AI-20070068395-$ | AI-20070084352-$ | AI-20070186784-$ | AI-20070224319-$ | AI-2007114685-$ | AI-20080095904-$ | AI-20080105131-$ | AI-20080115674-$ | AI-20080134902-$ | AI-20080216666-$ | AI-20080245236-$ | AI-20080317931-$ | AI-2008117329-$ | AI-2008125256-$ | AI-2008132571-$ | AI-20090007794-$ | AI-20090007796-$ | AI-20090017177-$ | AI-20090126577-$ | AI-20090158938-$ | AI-20090205503-$ | AI-20090255410-$ | AI-20090280219-$ | AI-20100024658-$ | AI-20100037779-$ | AI-20100043644-$ | AI-20100043645-$ | AI-20100043646-$ | AI-20100064899-$ | AI-20100077928-$ | AI-20100101428-$ | AI-20100129512-$ | AI-20100154647-$ | AI-20100154651-$ | AI-20100186599-$ | AI-20100203208-$ | AI-20100288131-$ | AI-20100303964-$ | AI-20110030563-$ | BI-6440256-$ | CN-101048095-$ | CN-101309840-$ | CN-101410041-$ | CN-101421172-$ | CN-1125681-$ | CN-1612831-$ | EP-0507905-$ | EP-1775234-$ | EP-2298671-$ | EP-2367736-$ | GB-1256247-$ | JP-01310612-$ | JP-02231043-$ | JP-06015879-$ | JP-2000336570-$ | JP-2000355375-$ | JP-2004534697-$ | JP-2005211659-$ | JP-62188626-$ | JP-63047890-$ | NL-2009050816-$ | WO-02081337-$ | WO-03059778-$ | WO-2004064582-$ | WO-2006030461-$ | WO-2006045537-$ | WO-2007114685-$ |	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/05/14 21:22

		WO-2008078990-$ | WO-2008117329-$ | WO-2008125256-$ | WO-2008132571-$ | WO-2009006379-$).DID.				
S192	10	RU "2312803"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/05/14 21:37
S193	0	99/286,289R,295,302R,307,323.ccls. and (capsule) and (piercing and pentrat$3)	US-PGPUB; USPAT	AND	ON	2021/05/14 22:39
S194	1,205	99/286,289R,295,302R,307,323.ccls. and (capsule or cartridge) and (coffee)	US-PGPUB; USPAT	AND	ON	2021/05/14 22:40
S195	766	S194 and (piercing or pierce or penetrat$3)	US-PGPUB; USPAT	AND	ON	2021/05/14 22:41
S196	2,465	A47J31/3695.cpc. and ((capsule or cartridge) and (beverage or coffee))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2021/05/14 22:46
S197	1,292	A47J31/3676.cpc. and ((capsule or cartridge) and (beverage or coffee))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2021/05/14 22:46
S198	915	A47J31/368.cpc. and ((capsule or cartridge) and (beverage or coffee))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2021/05/14 22:46
S199	466	A47J31/3685.cpc. and ((capsule or cartridge) and (beverage or coffee))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2021/05/14 22:46
S200	1,788	B65D65/466.cpc. and ((capsule or cartridge) and (beverage or coffee))	US-PGPUB; USPAT;	ADJ	ON	2021/05/14 22:46

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S201	119	B65D77/32.cpc. and ((capsule or cartridge) and (beverage or coffee))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2021/05/14 22:46
S202	134	B65D77/38.cpc. and ((capsule or cartridge) and (beverage or coffee))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2021/05/14 22:46
S203	11,997	B65D85/8043.cpc. and ((capsule or cartridge) and (beverage or coffee))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2021/05/14 22:46
S204	1,471	B65D85/8046.cpc. and ((capsule or cartridge) and (beverage or coffee))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2021/05/14 22:46
S205	2,516	S203 and (pierc$3 or penetrat$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2021/05/14 22:49
S206	9	"14904186"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2021/05/14 23:29
S207	2	"20060236871"	US-PGPUB; USPAT; USOCR;	AND	OFF	2021/05/15 00:40

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S208	1	"16355174"	US-PGPUB; USPAT	AND	OFF	2021/05/15 01:06
S209	0	WO "2008125526"	US-PGPUB; USPAT	AND	OFF	2021/05/15 01:44
S210	0	WO "2008125526"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/05/15 01:44
S211	50	WO "2008125256"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2021/05/15 01:45
S212	91	WO "2008132571"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2021/05/15 01:46
S213	77	WO "2008132571"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2021/05/15 01:47
S214	2	("2017/0275090").URPN.	USPAT	OR	OFF	2021/08/21 01:17
S215	1,701	"99".clas. and (pouch or pack or bag or sachet)	USPAT	OR	OFF	2021/08/21 01:32
S216	501	S215 and (inlet and outlet)	US-PGPUB; USPAT	AND	OFF	2021/08/21 01:33
S217	274	S216 and (film or flexible)	US-PGPUB; USPAT	AND	OFF	2021/08/21 01:36
S218	515	"426".clas. and (pouch or pack or bag or sachet) and (insert)	USPAT	OR	OFF	2021/08/21 01:42
S219	55	(US-20090280219-$ or US-20090017177-$ or US-20070224319-$ or US-20060110507-$ or US-	US-PGPUB; USPAT; USOCR;	ADJ	ON	2021/10/06 15:49

		20010052294-$ or US-20120180670-$).did. or (US-8202560-$ or US-7798055-$ or US-5327815-$ or US-5398595-$ or US-5402707-$ or US-5656316-$ or US-7946217-$ or US-7856921-$ or US-7318372-$ or US-7279188-$ or US-6026732-$ or US-5897899-$ or US-5398596-$ or US-5325765-$ or US-5197374-$ or US-4136202-$ or US-5242702-$ or US-6832542-$ or US-9179797-$).did. or (FR-2617389-$ or WO-2005090196-$).did. or (WO-9311841-$ or WO-2005090196-$).did.	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S220	27	"8720320"	USPAT	OR	OFF	2021/10/06 19:39
S221	5	"9795243"	USPAT	OR	OFF	2021/10/06 19:46
S222	2	"10865039"	USPAT	OR	OFF	2021/10/06 19:52
S223	1	"20030222089"	US-PGPUB; USPAT	AND	OFF	2021/10/07 00:26
S224	1	"20060137532"	US-PGPUB; USPAT	AND	OFF	2021/10/07 00:27
S267	1,829,945	EP "1500357"	USPAT	OR	OFF	2021/10/07 12:26
S268	77	EP "1500357"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/10/07 12:32
S269	88	"7946217"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/10/07 12:43
S270	95	("20020023543" | "20040112223" | "20050034604" | "2778739" | "3607297" | "5388502" | "5398595" | "5472719" | "5598764" | "5762987" | "5794519" | "6182554" | "6752070" | "7024985").PN. OR ("7946217").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2021/10/07 12:43

S271	9	"9795243"	US-PGPUB; USPAT; USOCR	OR	OFF	2021/10/07 13:12
S272	206	("20010043954" | "20020005367" | "20020023543" | "20020035929" | "20020048621" | "20020059870" | "20020078831" | "20020148356" | "20030006185" | "20030041739" | "20030167928" | "20030200872" | "20030213370" | "20030222089" | "20030226449" | "20040020368" | "20040020922" | "20040118290" | "20040182247" | "20040244600" | "20050051478" | "20050160918" | "20050172819" | "20050236323" | "20050257695" | "20050266122" | "20050284303" | "20060019000" | "20060107841" | "20060159815" | "20060174769" | "20060196364" | "20060254428" | "20070175334" | "20070277677" | "20090229471" | "20100083843" | "20100288131" | "20100303964" | "20110209623" | "20110274802" | "20120207895" | "20120207896" | "20120276264" | "20120285330" | "20120285334" | "20130017303" | "20130025466" | "20130156897" | "20140245895" | "20140287105" | "2433815" | "3022411" | "3115822" | "3120170" | "3136241" | "3199682" | "3224360" | "3316388" | "3336857" | "3384004" | "3403617" | "3405630" | "3583308" | "3592126" | "3607297" | "3695168" | "3757670" | "3844206" | "3948157" | "3958502" | "4052318" | "4086848" | "4143590" | "4164644" | "4221670" | "4253385" | "4286515" | "4510853" | "4550024" | "4603621" | "4703687" | "4704954" | "4706555" | "4721835" | "4739697" | "4832845" | "4833979" | "4858523" | "4865737" | "4967648" | "4986172" | "4998463" | "5000082" | "5012059" | "5028328" | "5046409" | "5072660" | "5123335" | "5190653" | "5233914" | "5242702" | "5265517" | "5287797" | "5325765" | "5335589" | "5343799" | "5347916").PN. OR ("5363745" | "5398596" | "5401328" | "5403605" | "5406882" | "5463932" | "5490448" | "5526733" | "5531152" | "5562941" | "5582730" | "5582731" |	US-PGPUB; USPAT; USOCR	OR	OFF	2021/10/07 13:15

		"5635233" | "5636563" | "5669287" | "5676041" | "5775206" | "5829340" | "5840189" | "5865094" | "5870943" | "5887510" | "5897899" | "5924563" | "5932260" | "6065609" | "6136352" | "6189438" | "6227102" | "6231909" | "6250209" | "6253662" | "6263781" | "6440256" | "6589577" | "6606938" | "6607762" | "6645537" | "6655260" | "6658989" | "6662955" | "6708600" | "6727484" | "6740345" | "6758130" | "6786136" | "6832542" | "6843165" | "6904840" | "6948420" | "6968775" | "7047870" | "7081263" | "7131369" | "7320274" | "7730829" | "7946217" | "8047127" | "8087347" | "D431423" | "D454433" | "D454434" | "D474110" | "D474111" | "D502362" | "RE37173").PN. OR ("9232871").URPN.				
S273	21	"11777831"	US-PGPUB; USPAT; USOCR	OR	OFF	2021/10/07 13:45
S274	21	"11777831"	US-PGPUB; USPAT	OR	OFF	2021/10/07 14:33
S275	11	"11777831"	US-PGPUB	OR	OFF	2021/10/07 14:35
S276	224	("20020023543" | "6688490" | "6832542" | "7318374" | "20020144604" | "20040182247" | "2407118" | "4152464" | "4164644" | "4510853" | "4858523" | "5072660" | "5401328" | "5932260" | "6231909" | "6662955" | "20100047419" | "20120118880" | "20140124435" | "20020148356" | "3607297" | "5242702" | "5840189" | "6948420" | "20020005367" | "20020035929" | "20020059870" | "20040118290" | "20040244600" | "20060254428" | "2433815" | "3224360" | "3695168" | "3958502" | "4052318" | "4967648" | "5012629" | "5197374" | "5287797" | "5403605" | "5463932" | "5490448" | "5870943" | "6658989" | "8087347" | "D474110" | "20120148709" | "20140004231" | "20150050391" | "20180116444" | "9795243" | "3199682" | "4706555" | "6499388" | "20030041739" | "20030213370" | "20040020368" | "20060019000" |	US-PGPUB; USPAT	OR	OFF	2021/10/07 14:51

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S277	304	"6606938"	US-PGPUB; USPAT	OR	OFF	2021/10/07 15:11
S278	1	"09782622"	US-PGPUB; USPAT	OR	OFF	2021/10/07 15:18
S279	77	EP "1500357"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/10/07 15:24
S280	5	(US-0336531-$ | US-0450130-$ | US-0450131-$ | US-16900462-$ | US-1844292-$ | US-6900462-$).DID.	US-PGPUB; USPAT	OR	OFF	2021/10/07 15:40
S281	2,225	"99".clas. and (capsule or cartridge)	US-PGPUB; USPAT	OR	OFF	2021/10/07 15:40
S282	2,225	"99".clas. and (capsule or cartridge)	US-PGPUB; USPAT	AND	OFF	2021/10/07 15:41
S283	12	"7685931"	US-PGPUB; USPAT	AND	OFF	2021/10/07 16:34
S284	3	"10865039"	US-PGPUB; USPAT	AND	OFF	2021/10/07 16:40
S285	9	"9795243"	US-PGPUB; USPAT	AND	OFF	2021/10/07 16:43
S286	72	("3292527" | "3374927" | "3385475" | "3470812" | "3584767" | "3628444" | "3752362" | "3754463" | "3926339" | "4259573" | "5472719" | "5709539" | "5723861" | "5773067" | "5801820" | "5897899" | "6606938" | "6810788" | "6955116").PN. OR ("7063238").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2021/10/07 17:00

S287	1	"16900462"	US-PGPUB; USPAT; USOCR	OR	OFF	2021/10/07 18:44
S288	9	"9795243"	US-PGPUB; USPAT; USOCR	OR	OFF	2021/10/07 19:32
S289	41	"8720320"	US-PGPUB; USPAT	AND	OFF	2021/10/28 14:53
S290	21	"11777831"	US-PGPUB; USPAT	AND	OFF	2021/10/28 15:11
S291	6	"15790398"	US-PGPUB; USPAT	AND	OFF	2021/10/28 15:13
S292	9	"9795243"	US-PGPUB; USPAT	AND	OFF	2021/10/28 15:13
S293	1	"16355174"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/11/01 18:20
S294	7	"99".clas. and (capsule) and (internal near (movable or piercing or cutting or protruding))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/11/01 20:13
S295	0	"99".clas. and (capsule or cartridge) same (piericng)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/11/01 20:15
S296	12	EP "2298671"	US-PGPUB; USPAT	AND	OFF	2021/11/01 20:17
S297	32	EP "2298671"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/11/01 20:17
S298	5	"20150157164"	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2021/11/10 08:19

			EPO; JPO; DERWENT; IBM_TDB			
S299	7	"20140072675"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/11/10 08:20
S300	8	"20160157660"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/11/10 08:20
S301	49	"8291812"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/11/10 08:21
S302	30	"12620584"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/11/10 08:28
S303	30	"12620584"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/11/10 08:28
S304	573	"5325765"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/11/10 08:30
S305	21	"11777831"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	AND	OFF	2021/11/10 08:32

			DERWENT; IBM_TDB			
S306	34	"12610181"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/11/10 08:36
S307	10	("20130017303" | "5325765" | "7836819" | "7946217" | "8561524" | "9402501" | "D255313" | "D407602" | "D688095" | "D694579").PN. OR ("9756974").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2021/11/10 08:41
S308	80	("0481547" | "0747290" | "0846473" | "0865776" | "1134661" | "20010032822" | "20020148358" | "20030000887" | "20030209151" | "20030226449" | "20040094039" | "20050236323" | "20070186784" | "20070221069" | "20070259074" | "20080196593" | "20090241344" | "20100154651" | "20100176037" | "20100178392" | "20100212509" | "20100224078" | "20100263548" | "20120285330" | "20120285334" | "2464722" | "2570997" | "3592126" | "4080299" | "4374026" | "4882055" | "5266194" | "5853581" | "5902620" | "5910205" | "5988190" | "6026733" | "6079315" | "6192786" | "6202541" | "6244162" | "6260476" | "6453800" | "6880454" | "6912949" | "6960295" | "7150219" | "7219600" | "7231870" | "7464637" | "7836820" | "7870821" | "7891286" | "8033212" | "D560097").PN. OR ("8561524").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2021/11/10 08:42
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S311	11	"11777831"	US-PGPUB	AND	OFF	2021/11/10 09:17
S312	0	1139+2893	US-PGPUB	AND	OFF	2021/11/10 09:18
S313	3	"11392893"	US-PGPUB	AND	OFF	2021/11/10 09:18
S314	305	A47J31/20.cpc.	US-PGPUB	AND	OFF	2021/11/10 14:21
S315	703	A47J31/20.cpc.	US-PGPUB; USPAT	AND	OFF	2021/11/10 14:21
S316	329	A47J31/4403.cpc. and (cartridge or capsule) and (bevereage or coffee or brew$3)	US-PGPUB; USPAT	AND	OFF	2021/11/10 15:57
S317	216	B65B29/022.cpc. and (cartridge or capsule) and (bevereage or coffee or brew$3)	US-PGPUB; USPAT	AND	OFF	2021/11/10 16:31
S318	81	A47J31/404.cpc. and (cartridge or capsule) and (bevereage or coffee or brew$3)	US-PGPUB; USPAT	AND	OFF	2021/11/10 16:41
S319	1,357	A47J31/407.cpc. and (cartridge or capsule) and (bevereage or coffee or brew$3)	US-PGPUB; USPAT	AND	OFF	2021/11/10 16:54
S320	0	S319 and (needel)	US-PGPUB; USPAT	AND	OFF	2021/11/10 16:55
S321	444	S319 and (needle)	US-PGPUB; USPAT	AND	OFF	2021/11/10 16:55
S322	291	99/295.ccls. and (cartridge or capsule) and (bevereage or coffee or brew$3) and (needle)	US-PGPUB; USPAT	AND	OFF	2021/11/10 17:09
S323	2	"20070186784"	US-PGPUB; USPAT	AND	OFF	2021/11/11 10:55

S324	1	"20060107841"	US-PGPUB; USPAT	AND	OFF	2021/11/11 11:11
S325	572	(US-20110030563-$ or US-20100288131-$ or US-20100203208-$ or US-20100186599-$ or US-20100154651-$ or US-20100154647-$ or US-20100129512-$ or US-20100101428-$ or US-20100077928-$ or US-20100064899-$ or US-20100043646-$ or US-20100043645-$ or US-20100043644-$ or US-20100037779-$ or US-20090280219-$ or US-20090255410-$ or US-20090205503-$ or US-20090158938-$ or US-20090126577-$ or US-20090017177-$ or US-20090007796-$ or US-20090007794-$ or US-20080317931-$ or US-20080245236-$ or US-20080216666-$ or US-20080105131-$).did. or (US-20070186784-$ or US-20070084352-$ or US-20070068395-$ or US-20100303964-$ or US-20070224319-$ or US-20060110507-$ or US-20060019000-$ or US-20120258210-$ or US-20140287105-$ or US-20140020565-$ or US-20100147156-$ or US-20140026761-$ or US-20150108011-$ or US-20070144355-$ or US-20150196159-$ or US-20140072676-$ or US-20050051478-$ or US-20190233200-$ or US-20190225414-$ or US-20190225413-$ or US-20190202629-$ or US-20190177079-$ or US-20190177078-$ or US-20190167031-$ or US-20140287099-$ or US-20190100376-$ or US-20190084758-$).did. or (US-20190077588-$ or US-20160009486-$ or US-20150314955-$ or US-20190047771-$ or US-20190055084-$ or US-20190055083-$ or US-20190047782-$ or US-20190016527-$ or US-20130340626-$ or US-20130017303-$ or US-20190002192-$ or US-20180370720-$ or US-20180346239-$ or US-20180332995-$ or US-20180325309-$ or US-20180325301-$ or US-20180319582-$ or US-20180305194-$ or US-20150017293-$ or US-20180303275-$ or US-20180297776-$ or US-	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2021/11/11 11:14

		20180297775-$ or US-20180297309-$ or US-20180290825-$ or US-20180290824-$ or US-20180273286-$ or US-20180257856-$).did. or (US-20180237217-$ or US-20180220840-$ or US-20170143158-$ or US-20180215533-$ or US-20180206667-$ or US-20180201436-$ or US-20150246741-$ or US-20180178973-$ or US-20180178972-$ or US-20180162634-$ or US-20180148250-$ or US-20160137402-$ or US-20180134485-$ or US-20160198732-$ or US-20150158666-$ or US-20180125288-$ or US-20180116446-$ or US-20150360854-$ or US-20180084941-$ or US-20140272018-$ or US-20180044104-$ or US-20180037402-$ or US-20180029790-$ or US-20180016092-$ or US-20180002104-$ or US-20170362020-$ or US-20150246768-$).did. or (US-20170355515-$ or US-20170334624-$ or US-20170334623-$ or US-20170327308-$ or US-20170326617-$ or US-20170320658-$ or US-20170313496-$ or US-20150245733-$ or US-20170305653-$ or US-20140127364-$ or US-20170280750-$ or US-20170275090-$ or US-20170275089-$ or US-20170275088-$ or US-20170275087-$ or US-20140141128-$ or US-20170258264-$ or US-20170174418-$ or US-20100203198-$ or US-20110189350-$ or US-20150150409-$ or US-20170120203-$ or US-20150344285-$ or US-20170081111-$ or US-20170071395-$ or US-20110303095-$ or US-20170050799-$).did. or (US-20150257580-$ or US-20170042365-$ or US-20170036857-$ or US-20170036854-$ or US-20130236609-$ or US-20160288990-$ or US-20160345769-$ or US-20130059039-$ or US-20130078341-$ or US-20160332805-$ or US-20160325898-$ or US-20160280430-$ or US-20160214787-$ or US-20160206133-$ or US-20160194147-$ or US-20160176624-$ or US-20150201791-$ or US-20160157660-$ or US-20160068334-$ or US-20160145037-$				

		or US-20160137401-$ or US-20160130076-$ or US-20160120356-$ or US-20160114967-$ or US-20160113435-$ or US-20160107831-$ or US-20160066591-$).did. or (US-20160052706-$ or US-20160016727-$ or US-20160001968-$ or US-20160001903-$ or US-20150368033-$ or US-20150353275-$ or US-20150353272-$ or US-20150336736-$ or US-20150320254-$ or US-20150314954-$ or US-20150307266-$ or US-20150282663-$ or US-20150272379-$ or US-20150251847-$ or US-20150208852-$ or US-20150203285-$ or US-20110283890-$ or US-20150157164-$ or US-20150151903-$ or US-20150140182-$ or US-20150125576-$ or US-20140272016-$ or US-20120070543-$ or US-20150086680-$ or US-20120070551-$ or US-20150072053-$ or US-20150072052-$).did. or (US-20150064324-$ or US-20150056351-$ or US-20150047509-$ or US-20150050391-$ or US-20140170271-$ or US-20150021209-$ or US-20150017290-$ or US-20140377413-$ or US-20140373725-$ or US-20120321756-$ or US-20140356484-$ or US-20140342060-$ or US-20140342059-$ or US-20140318380-$ or US-20140318379-$ or US-20140314919-$ or US-20140290494-$ or US-20120251671-$ or US-20140220189-$ or US-20140220190-$ or US-20140205721-$ or US-20140196608-$ or US-20140190863-$ or US-20140178538-$ or US-20140170269-$ or US-20140161940-$ or US-20140161936-$).did. or (US-20090223375-$ or US-20140123859-$ or US-20140120217-$ or US-20140106036-$ or US-20100159109-$ or US-20140090564-$ or US-20140087028-$ or US-20140072677-$ or US-20140072675-$ or US-20140069280-$ or US-20140065269-$ or US-20120121779-$ or US-20140053735-$ or US-20140037802-$ or US-20140017359-$ or US-20140004231-$ or US-20130302476-$ or US-20100303965-$ or US-				

		20130270176-$ or US-20130259983-$ or US-20130247774-$ or US-20130243910-$ or US-20130216663-$ or US-20100132564-$ or US-20100239734-$ or US-20130180409-$ or US-20130164414-$).did. or (US-20130146495-$ or US-20130139700-$ or US-20130139699-$ or US-20130125762-$ or US-20120058226-$ or US-20130122157-$ or US-20130115340-$ or US-20130105340-$ or US-20130095212-$ or US-20130064936-$ or US-20130045307-$ or US-20130040021-$ or US-20130025466-$ or US-20120328739-$ or US-20120308688-$ or US-20120276264-$ or US-20120269933-$ or US-20120251668-$ or US-20120240779-$ or US-20120207896-$ or US-20120207895-$ or US-20120201933-$ or US-20120201932-$ or US-20120196008-$ or US-20100003371-$ or US-20080187638-$ or US-20120171333-$).did. or (US-20120121780-$ or US-20120118166-$ or US-20120097602-$ or US-20120052164-$ or US-20120052163-$ or US-20120015081-$ or US-20120015080-$ or US-20110305801-$ or US-20110297005-$ or US-20110283891-$ or US-20110274794-$ or US-20110142996-$ or US-20110097450-$ or US-20110076361-$ or US-20110073607-$ or US-20110064852-$ or US-20110045144-$ or US-20110041702-$ or US-20110020497-$ or US-20100307930-$ or US-20100297299-$ or US-20100206177-$ or US-20100180774-$ or US-20100178392-$ or US-20060196364-$ or US-20100154644-$ or US-20100108541-$).did. or (US-20050150390-$ or US-20100062127-$ or US-20100047418-$ or US-20100005973-$ or US-20090320693-$ or US-20090320692-$ or US-20090263545-$ or US-20090235827-$ or US-20090211458-$ or US-20090110775-$ or US-20080257165-$ or US-20050115415-$ or US-20070181003-$ or US-20070148290-$ or US-20070062375-$ or US-20060236871-$ or US-20060174769-$			

		or US-20060065127-$ or US-20030172813-$ or US-20020078831-$ or US-20190208950-$ or US-20110168029-$ or US-20120285330-$ or US-20060107841-$ or US-20020023543-$ or US-20120118880-$ or US-20110274802-$).did. or (US-20110197771-$ or US-20110185910-$ or US-20110100229-$ or US-20090223373-$ or US-20040250686-$ or US-20020152895-$ or US-20020144604-$ or US-20020144603-$ or US-20020144602-$ or US-20150230652-$ or US-20150027318-$ or US-20210261280-$ or US-20210253334-$ or US-20200253413-$ or US-20200231370-$ or US-20200189772-$ or US-20170043943-$ or US-20200017288-$ or US-20190047783-$ or US-20180362198-$ or US-20180242776-$ or US-20170361961-$ or US-20170360239-$ or US-20170360057-$ or US-20160311610-$ or US-20160311609-$ or US-20160280453-$).did. or (US-20120090475-$ or US-20160145038-$ or US-20150158609-$ or US-20110117248-$ or US-20210331864-$ or US-20200121115-$ or US-20200047984-$ or US-20190328170-$ or US-20190313835-$ or US-20130129870-$ or US-20150201790-$ or US-20170355514-$ or US-20170319001-$ or US-20170295988-$ or US-20160157666-$ or US-20120100259-$ or US-20150238044-$ or US-20110259204-$ or US-20150068405-$ or US-20150056352-$ or US-20150001100-$ or US-20140318381-$ or US-20140305315-$ or US-20140186498-$ or US-20130186282-$ or US-20140318378-$ or US-20140287104-$).did. or (US-20130133522-$ or US-20130118360-$ or US-20050223904-$).did. or (US-8304006-$ or US-8220382-$ or US-8202560-$ or US-8161868-$ or US-8161866-$ or US-8147887-$ or US-7993691-$ or US-7946217-$ or US-7930972-$ or US-7856921-$ or US-7854192-$ or US-7836819-$ or US-7815953-$ or US-7703381-$ or US-7624673-$ or US-7604826-$ or US-				

		7279188-$ or US-5897899-$ or US-5826492-$ or US-5762987-$ or US-5649472-$ or US-5402707-$ or US-5398595-$ or US-5327815-$ or US-4846052-$ or US-5325765-$).did. or (US-6079315-$ or US-6182554-$ or US-6644173-$ or US-7490542-$ or US-4136202-$ or US-7552672-$ or US-8640604-$ or US-8322271-$ or US-7856920-$ or US-6606938-$ or US-8846120-$ or US-6672200-$ or US-6666130-$ or US-6142063-$ or US-6082247-$ or US-3615708-$ or US-2968560-$ or US-9486108-$ or US-11001437-$ or US-11001436-$ or US-11001433-$ or US-10144579-$ or US-9764891-$ or US-5472719-$ or US-5242702-$ or US-9232871-$ or US-9463921-$).did. or (US-6832542-$ or US-8720320-$ or US-8794125-$ or US-7063238-$ or US-8561524-$ or US-7836820-$ or US-5656311-$ or US-9402501-$ or US-11166587-$ or US-8927037-$ or US-7681492-$).did. or (US-2968560-$).did. or (WO-02081337-$ or WO-2010076698-$ or JP-4836776-$ or CA-2765371-$ or CA-2819140-$ or EP-2520202-$ or CA-2811153-$ or EP-2647317-$ or CA-2521063-$ or FR-2993869-$ or WO-2008113779-$ or EP-1864917-$ or WO-2012011053-$ or WO-2008125256-$ or WO-2014041419-$ or WO-2014033339-$ or EP-1992575-$ or EP-1500357-$ or WO-2009050540-$ or EP-2374733-$ or EP-2345602-$ or EP-1364605-$ or WO-2015136433-$ or EP-2612579-$ or WO-2012076135-$ or EP-2409608-$).did. or (WO-2013079814-$ or KR-200450676-$ or CA-2526785-$ or EP-1775234-$ or WO-2006045537-$ or WO-2007114685-$ or WO-2008132571-$ or WO-2008117329-$ or WO-03059778-$ or WO-2004064582-$ or CH-711427-$ or EP-3181484-$ or WO-2015117892-$ or GB-2520492-$ or EP-2966006-$ or GB-2530062-$ or CA-2701826-$ or EP-2868598-$ or EP-2298671-$).did. or (EP-1775234-$ or WO-2008132571-$ or WO-2008125256-$ or WO-2007114685-$ or WO-				

		2006045537-$ or EP-1500357-$).did. or (JP-2000355375-$ or JP-2012005818-$ or JP-2005211659-$ or JP-01310612-$).did. or (EP-1775234-$ or WO-2006030461-$ or JP-2000355375-$ or US-20050084569-$ or GB-2531687-$ or GB-2530680-$ or GB-2530062-$ or WO-2015177591-$ or WO-2015128799-$ or ES-2538740-$ or EP-2886490-$ or WO-2014191044-$ or WO-2014188285-$ or DE-102012223291-$ or WO-2014061045-$ or FR-2993869-$ or EP-2647317-$ or ES-2398277-$ or WO-2012150542-$ or WO-2012123106-$ or WO-2012110323-$ or WO-2012100836-$ or WO-2012100976-$ or WO-2013135937-$ or WO-2012072509-$ or WO-2012042487-$).did. or (WO-2012034819-$ or FR-2962893-$ or WO-2011159162-$ or WO-2011159163-$ or WO-2013060918-$ or EP-2374733-$ or WO-2010137953-$ or WO-2010118543-$ or WO-2009103592-$ or WO-2009084059-$ or WO-2009050540-$ or WO-2008148834-$ or EP-1992575-$ or WO-2008132571-$ or WO-2008125256-$ or WO-2008113779-$ or WO-02081337-$ or WO-2015136433-$ or US-20150374165-$ or WO-2010137947-$ or EP-1500357-$ or US-20140072675-$).did.				
S326	339	S325 and (filter)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/11/11 11:15
S327	4	"16900462"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/11/11 11:59
S328	386	("0240402" | "0346278" | "0370141" | "0845968" | "1168544" | "1302483" | "2997940" | "3199682" | "3260190" |	US-PGPUB; USPAT; USOCR	OR	OFF	2021/11/11 12:08

		"3403617" | "3579351" | "3615708" | "3754463" | "3971305" | "4204966" | "4321139" | "4417504" | "4584101" | "4859337" | "4981588").PN. OR ("5325765").URPN.				
S329	1,309	"99".clas. and (capsule or cartridge) and (filter)	US-PGPUB; USPAT; USOCR	OR	OFF	2021/11/11 12:31
S330	1,309	"99".clas. and (capsule or cartridge) and (filter)	US-PGPUB; USPAT; USOCR	AND	OFF	2021/11/11 12:32
S331	138	"7513192"	US-PGPUB; USPAT; USOCR	AND	OFF	2021/11/11 13:02
S332	283	"6645537"	US-PGPUB; USPAT; USOCR	AND	OFF	2021/11/11 13:02
S333	28	"12610181"	US-PGPUB; USPAT; USOCR	AND	OFF	2021/11/11 13:07
S334	512	"5325765"	US-PGPUB; USPAT; USOCR	AND	OFF	2021/11/11 13:08
S335	2	"20070186784"	US-PGPUB; USPAT; USOCR	AND	OFF	2021/11/11 13:50
S337	1	"20060107841"	US-PGPUB; USPAT; USOCR	AND	OFF	2021/11/11 15:24
S338	2	"20050223904"	US-PGPUB; USPAT; USOCR	AND	OFF	2021/11/11 16:12
S339	2	"20070186784"	US-PGPUB; USPAT; USOCR	AND	OFF	2021/11/11 16:48
S340	2	"20070186784"	US-PGPUB; USPAT	AND	OFF	2021/11/11 19:10
S341	6	WO "2008125256"	US-PGPUB; USPAT	AND	OFF	2021/11/11 19:19
S342	51	WO "2008125256"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/11/11 19:19

S343	136	((("Rivera") near3 ("Adrian"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2021/11/11 19:29
S345	1	"16900462"	US-PGPUB; USPAT	AND	OFF	2021/12/22 10:45
S349	4	"16900462"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2021/12/22 12:23
S358	16	EP "1364605"	US-PGPUB; USPAT	AND	ON	2022/02/17 14:06
S359	65	EP "1364605"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/02/17 14:06
S360	69	"7412921"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/02/17 14:08
S361	5	"20100303964"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/02/17 14:11
S362	53	"7490542"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/02/17 14:12
S363	6	"13744623"	USPAT	ADJ	ON	2022/03/22 10:02
S364	19	"13744623"	US-PGPUB; USPAT	ADJ	ON	2022/03/22 10:02
S365	0	((("KrÃ¼ger") near3 ("Marc"))).INV.	US-PGPUB	OR	ON	2022/03/22 10:04

S366	0	((("KrÃ¼ger") near3 ("Marc"))).INV.	US-PGPUB; USPAT; USOCR	OR	ON	2022/03/22 10:05
S367	2	"14411571"	US-PGPUB; USPAT	AND	ON	2022/03/22 10:07
S368	24	((("K-FEE") near3 ("SYSTEM") near3 ("GMBH"))).AS,AANM.	USPAT	OR	ON	2022/03/22 10:10
S369	0	"17547363"	US-PGPUB; USPAT	AND	ON	2022/03/22 10:12
S370	10	"10994923"	US-PGPUB; USPAT	AND	ON	2022/03/22 10:12
S371	419	("0923706" | "1036589" | "1051426" | "1329461" | "1485200" | "1689665" | "20010038204" | "20010047724" | "20010048957" | "20020020659" | "20020048621" | "20020085164" | "20020088807" | "20020104373" | "20020110626" | "20020148356" | "20030005826" | "20030033938" | "20030039731" | "20030121979" | "20030172813" | "20030222089" | "20040005384" | "20040045443" | "20040089158" | "20040089602" | "20040115310" | "20040118295" | "20040142070" | "20040155113" | "20040182250" | "20040188459" | "20050000164" | "20050016383" | "20050045566" | "20050051478" | "20050061478" | "20050150391" | "20050160919" | "20050183581" | "20050235571" | "20050266122" | "20060010744" | "20060010784" | "20060032427" | "20060084344" | "20060107841" | "20060194004" | "20060215978" | "20060228447" | "20060236871" | "20070144355" | "20070148290" | "20070157821" | "20070181005" | "20070181412" | "20070203587" | "20070257118" | "20070283640" | "20080024523" | "20080026121" | "20080028946" | "20080038441" | "20080085356" | "20080116105" | "20080122217" | "20080148948" | "20080187638" | "20080245236" | "20080299262" | "20080302251" | "20090004343" | "20090007793" | "20090007796" | "20090092711" | "20090126577" | "20090136626" | "20090205747" | "20090211458" | "20090211713" | "20090220650" | "20090223375" |	US-PGPUB; USPAT; USOCR	OR	ON	2022/03/22 10:44

"20090249961" | "20090289121" |
"20090291379" | "20090324788" |
"20090324791" | "20100000667" |
"20100007848" | "20100028495" |
"20100050880" | "20100051532" |
"20100054532" | "20100072272" |
"20100078480").PN. OR
("20100108541" | "20100132564" |
"20100147418" | "20100147872" |
"20100173056" | "20100181378" |
"20100196545" | "20100239717" |
"20100239733" | "20100239734" |
"20100260915" | "20100263329" |
"20100264640" | "20100288131" |
"20100288133" | "20100303964" |
"20100308061" | "20110005399" |
"20110008913" | "20110020500" |
"20110033580" | "20110041702" |
"20110064852" | "20110076361" |
"20110089135" | "20110097450" |
"20110142996" | "20110189350" |
"20110212225" | "20110250333" |
"20110250812" | "20110303095" |
"20110308397" | "20120006685" |
"20120024160" | "20120031794" |
"20120058226" | "20120060697" |
"20120070542" | "20120070543" |
"20120070551" | "20120097041" |
"20120097602" | "20120100264" |
"20120121765" | "20120123106" |
"20120126834" | "20120183657" |
"20120195155" | "20120201933" |
"20120207893" | "20120207895" |
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"20120258210" | "20120295234" |
"20120308688" | "20130055903" |
"20130059039" | "20130064929" |
"20130064937" | "20130084363" |
"20130084376" | "20130099597" |
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"20130125762" | "20130129872" |
"20130136828" | "20130149424" |
"20130156897" | "20130206011" |
"20130209618" | "20130209619" |
"20130209620" | "20130209622" |
"20130216663" | "20130230627" |
"20130243910" | "20130312619" |
"20130327223" | "20140001563" |
"20140004231" | "20140017359" |
"20140046126" | "20140127364" |
"20140141128" | "20140141129" |
"20140161936" | "20140178538" |
"20140196608" | "20140220191" |

"20140224130").PN. OR
("20140230370" | "20140263033" |
"20140272018" | "20140287104" |
"20140287105" | "20140302204" |
"20140346022" | "20140348984" |
"20140370181" | "20150010680" |
"20150020481" | "20150029702" |
"20150056331" | "20150056340" |
"20150056351" | "20150079241" |
"20150119220" | "20150128525" |
"20150132441" | "20150157164" |
"20150158665" | "20150158666" |
"20150166204" | "20150173558" |
"20150175347" | "20150201790" |
"20150239652" | "20150246741" |
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"20150329282" | "20150353275" |
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"20160075506" | "20160194146" |
"20160207696" | "20160242594" |
"20160251150" | "20160325921" |
"20160332759" | "20160340110" |
"20170020329" | "20170027374" |
"20190359418" | "2732919" |
"2778739" | "2847726" | "3039153" |
"3183096" | "3261129" | "3327428" |
"3363588" | "3416183" | "3473266" |
"3480989" | "3501896" | "3611637" |
"3631793" | "3640727" | "4081880" |
"4136202" | "4325204" | "4389925" |
"4404770" | "4424605" | "4452014" |
"4488387" | "4513535" | "4534985" |
"4540595" | "4633614" | "4644151" |
"4651469" | "4676482" | "4680828" |
"4742645" | "4859337" | "4860645" |
"4867993" | "4881346" | "4936049" |
"4976179" | "5012629" | "5028769" |
"5079872" | "5108768" | "5194553" |
"5242702" | "5243164" | "5251758" |
"5285041" | "5301468" | "5325765" |
"5351442" | "5392986" | "5402707" |
"5450693" | "5460078" | "5461829" |
"5496573" | "5501945").PN. OR
("5535765" | "5566505" | "5601716" |
"5637850" | "5656311" | "5656318" |
"5677522" | "5725261" | "5742979" |
"5840189" | "5888549" | "5895672" |
"5897899" | "5917165" | "5941055" |
"5948455" | "5980743" | "5994677" |
"6082499" | "6153026" | "6199780" |

		"6202929" | "6213326" | "6250016" | "6289643" | "6299926" | "6440256" | "6451332" | "6589577" | "6598800" | "6607762" | "6627244" | "6645537" | "6655260" | "6817538" | "6861086" | "6871448" | "6948420" | "6994879" | "7408094" | "7444925" | "7464518" | "7543527" | "7552672" | "7595870" | "7673558" | "7685930" | "7712258" | "7743557" | "7779578" | "7815953" | "7935646" | "7946217" | "7981451" | "8039029" | "8039034" | "8088423" | "8101928" | "8109200" | "8114461" | "8163318" | "8168908" | "8257766" | "8276639" | "8361527" | "8443549" | "8474368" | "8491948" | "8491976" | "8505440" | "8512886" | "8579006" | "8734881" | "8747775" | "8794125" | "8906436" | "8916220" | "8956672" | "9049958" | "9072402" | "9079705" | "9145730" | "9150347" | "9204751" | "9216854" | "9227837" | "9271602" | "9290317" | "9295278" | "9357791" | "9359126" | "9359128" | "9392902" | "9394101" | "9409703" | "9409704" | "9415931" | "9428328" | "9428329" | "9434525" | "9486108" | "9538876" | "9808112" | "9969564").PN. OR ("10994923").URPN.				
S372	2	"11230430"	US-PGPUB; USPAT	AND	ON	2022/03/22 10:51
S373	8	("20020048621" | "20100078480" | "20130129876" | "7444925" | "7856920" | "8087347" | "8695484" | "9320385").PN.	US-PGPUB; USPAT	AND	ON	2022/03/22 10:57
S375	1	"16316200"	US-PGPUB; USPAT	AND	ON	2022/03/22 11:26
S376	5	"10858176"	US-PGPUB; USPAT	AND	ON	2022/03/22 13:52
S377	12	"10858177"	US-PGPUB; USPAT	AND	ON	2022/03/22 14:25
S378	7	"17108175"	US-PGPUB; USPAT	AND	ON	2022/03/22 14:30
S379	1	"20170295988"	US-PGPUB; USPAT	AND	ON	2022/03/22 15:21
S380	1	"20140242239"	US-PGPUB; USPAT	AND	ON	2022/03/22 15:21
S381	2	"20180125288"	US-PGPUB; USPAT	AND	ON	2022/03/22 15:21

S382	0	"17547363"	US-PGPUB; USPAT	AND	ON	2022/03/22 15:28
S383	0	"17670765"	US-PGPUB; USPAT	AND	ON	2022/03/22 15:28
S384	6	"17324182"	US-PGPUB; USPAT	AND	ON	2022/03/22 15:29
S385	2	"11254491"	US-PGPUB; USPAT	AND	ON	2022/03/22 15:29
S386	4	"10870531"	US-PGPUB; USPAT	AND	ON	2022/03/22 15:33
S387	1	"16119166"	US-PGPUB; USPAT	AND	ON	2022/03/22 15:35
S388	623	"99".clas. and (capsule or cartridge) and (barcode or RFID or identif$4)	US-PGPUB; USPAT	AND	ON	2022/03/22 15:39
S389	1	"20080105131"	US-PGPUB; USPAT	AND	ON	2022/03/22 17:08
S390	2	"20130064937"	US-PGPUB; USPAT	AND	ON	2022/03/23 00:11
S391	0	"17547363"	US-PGPUB; USPAT	AND	ON	2022/03/23 13:50
S392	1	"13877892"	US-PGPUB; USPAT	AND	ON	2022/03/23 17:36
S393	19	"13744623"	US-PGPUB; USPAT	AND	ON	2022/03/23 18:27
S394	19	"15211823"	US-PGPUB; USPAT	AND	ON	2022/03/23 19:34
S395	16	"15646980"	US-PGPUB; USPAT	AND	ON	2022/03/23 19:35
S396	19	"15211823"	US-PGPUB; USPAT	AND	ON	2022/03/23 19:57
S397	19	"13744623"	US-PGPUB; USPAT	AND	ON	2022/03/23 19:58
S398	16	"15646980"	US-PGPUB; USPAT	AND	ON	2022/03/23 19:58
S399	0	"17547363"	US-PGPUB; USPAT	AND	ON	2022/03/23 20:07
S400	38	(US-2778739-$ | US-3183096-$ | US-3501896-$ | US-3521207-$ | US-3631793-$ | US-3640727-$ | US-4136202-$ | US-4389925-$ | US-4534985-$ | US-4540595-$ | US-4644151-$ | US-4676482-$ | US-4742645-$ | US-4846052-$ | US-4859337-$ | US-4860645-$ | US-4867993-$ | US-4976179-$ | US-	US-PGPUB; USPAT	AND	ON	2022/03/23 21:59

		5012629-$ | US-5028769-$ | US-5108768-$ | US-5194553-$ | US-5242702-$ | US-5243164-$ | US-5251758-$ | US-5285041-$ | US-5325765-$ | US-5402707-$ | US-5460078-$ | US-5496573-$ | US-5501945-$ | US-5535765-$ | US-5601716-$ | US-5637850-$ | US-5656311-$ | US-5656316-$ | US-5656318-$ | US-5677522-$).DID.				
S401	38	(US-2778739-$ | US-3183096-$ | US-3501896-$ | US-3521207-$ | US-3631793-$ | US-3640727-$ | US-4136202-$ | US-4389925-$ | US-4534985-$ | US-4540595-$ | US-4644151-$ | US-4676482-$ | US-4742645-$ | US-4846052-$ | US-4859337-$ | US-4860645-$ | US-4867993-$ | US-4976179-$ | US-5012629-$ | US-5028769-$ | US-5108768-$ | US-5194553-$ | US-5242702-$ | US-5243164-$ | US-5251758-$ | US-5285041-$ | US-5325765-$ | US-5402707-$ | US-5460078-$ | US-5496573-$ | US-5501945-$ | US-5535765-$ | US-5601716-$ | US-5637850-$ | US-5656311-$ | US-5656316-$ | US-5656318-$ | US-5677522-$).DID.	US-PGPUB; USPAT	AND	ON	2022/03/23 22:01
S402	40	(US-5725261-$ | US-5840189-$ | US-5888549-$ | US-5895672-$ | US-5897899-$ | US-5917165-$ | US-5941055-$ | US-5948455-$ | US-5980743-$ | US-5994677-$ | US-6025000-$ | US-6153026-$ | US-6199780-$ | US-6202929-$ | US-6213326-$ | US-6299926-$ | US-6440256-$ | US-6451332-$ | US-6527181-$ | US-6589577-$ | US-6598800-$ | US-6607762-$ | US-6627244-$ | US-6645537-$ | US-6655260-$ | US-6817538-$ | US-6861086-$ | US-6948420-$ | US-6994879-$ | US-7408094-$ | US-7444925-$ | US-7464518-$ | US-7543527-$ | US-7552672-$ | US-7595870-$ | US-7673558-$ | US-7685930-$ | US-7815953-$ | US-7856920-$ | US-7935646-$).DID.	US-PGPUB; USPAT	AND	ON	2022/03/23 22:02
S403	56	(US-0005384-$ | US-0005826-$ | US-0020659-$ | US-0033938-$ | US-	US-PGPUB; USPAT	AND	ON	2022/03/23 22:04

		0038204-$ | US-0039731-$ | US-0045443-$ | US-0047724-$ | US-0048621-$ | US-0048957-$ | US-0085164-$ | US-0088807-$ | US-0089158-$ | US-0089602-$ | US-0110626-$ | US-0121979-$ | US-0148356-$ | US-0172813-$ | US-0181005-$ | US-0222089-$ | US-20010038204-$ | US-20010047724-$ | US-20010048957-$ | US-20010181005-$ | US-20020020659-$ | US-20020048621-$ | US-20020085164-$ | US-20020088807-$ | US-20020110626-$ | US-20020148356-$ | US-20030005826-$ | US-20030033938-$ | US-20030039731-$ | US-20030121979-$ | US-20030172813-$ | US-20030222089-$ | US-20040005384-$ | US-20040045443-$ | US-20040089158-$ | US-20040089602-$ | US-9357791-$ | US-9359126-$ | US-9359128-$ | US-9392902-$ | US-9394101-$ | US-9409703-$ | US-9409704-$ | US-9415931-$ | US-9428328-$ | US-9428329-$ | US-9434525-$ | US-9486108-$ | US-9676538-$ | US-9708086-$ | US-9770129-$ | US-9808112-$ | US-9969564-$).DID.				
S404	82	(US-0004343-$ | US-0007793-$ | US-0010744-$ | US-0016383-$ | US-0024536-$ | US-0026121-$ | US-0028946-$ | US-0032427-$ | US-0038441-$ | US-0045566-$ | US-0051478-$ | US-0061478-$ | US-0084344-$ | US-0085356-$ | US-0107841-$ | US-0115310-$ | US-0116105-$ | US-0118295-$ | US-0142070-$ | US-0144355-$ | US-0148290-$ | US-0148948-$ | US-0150391-$ | US-0155113-$ | US-0157821-$ | US-0160919-$ | US-0181005-$ | US-0181412-$ | US-0182250-$ | US-0183581-$ | US-0187638-$ | US-0188459-$ | US-0194004-$ | US-0203587-$ | US-0228447-$ | US-0236871-$ | US-0245236-$ | US-0257118-$ | US-0266122-$ | US-0299262-$ | US-0302251-$ | US-20040115310-$ | US-20040118295-$ | US-20040142070-$	US-PGPUB; USPAT	AND	ON	2022/03/23 22:15

		| US-20040155113-$ | US-20040182250-$ | US-20040188459-$ | US-20050016383-$ | US-20050045566-$ | US-20050051478-$ | US-20050061478-$ | US-20050150391-$ | US-20050160919-$ | US-20050183581-$ | US-20050266122-$ | US-20060010744-$ | US-20060032427-$ | US-20060084344-$ | US-20060107841-$ | US-20060194004-$ | US-20060228447-$ | US-20060236871-$ | US-20070144355-$ | US-20070148290-$ | US-20070157821-$ | US-20070181005-$ | US-20070181412-$ | US-20070203587-$ | US-20070257118-$ | US-20080024536-$ | US-20080026121-$ | US-20080028946-$ | US-20080038441-$ | US-20080085356-$ | US-20080116105-$ | US-20080148948-$ | US-20080187638-$ | US-20080245236-$ | US-20080299262-$ | US-20080302251-$ | US-20090004343-$ | US-20090007793-$).DID.				
S405	84	(US-0000667-$ | US-0005399-$ | US-0007796-$ | US-0008913-$ | US-0020500-$ | US-0028495-$ | US-0033580-$ | US-0041702-$ | US-0050880-$ | US-0051532-$ | US-0054532-$ | US-0064852-$ | US-0072272-$ | US-0078480-$ | US-0092711-$ | US-0108541-$ | US-0126577-$ | US-0132564-$ | US-0136626-$ | US-0147418-$ | US-0147872-$ | US-0172951-$ | US-0181378-$ | US-0196545-$ | US-0211458-$ | US-0211713-$ | US-0223375-$ | US-0239717-$ | US-0239733-$ | US-0239734-$ | US-0249961-$ | US-0260915-$ | US-0263329-$ | US-0264640-$ | US-0288131-$ | US-0288133-$ | US-0289121-$ | US-0291379-$ | US-0303964-$ | US-0308061-$ | US-0324788-$ | US-0324791-$ | US-20090007796-$ | US-20090092711-$ | US-20090126577-$ | US-20090136626-$ | US-20090211458-$ | US-20090211713-$ | US-20090223375-$ | US-20090249961-$	US-PGPUB; USPAT	AND	ON	2022/03/23 22:17

		| US-20090289121-$ | US-20090291379-$ | US-20090324788-$ | US-20090324791-$ | US-20100000667-$ | US-20100028495-$ | US-20100050880-$ | US-20100051532-$ | US-20100054532-$ | US-20100072272-$ | US-20100078480-$ | US-20100108541-$ | US-20100132564-$ | US-20100147418-$ | US-20100147872-$ | US-20100172951-$ | US-20100181378-$ | US-20100196545-$ | US-20100239717-$ | US-20100239733-$ | US-20100239734-$ | US-20100260915-$ | US-20100263329-$ | US-20100264640-$ | US-20100288131-$ | US-20100288133-$ | US-20100303964-$ | US-20100308061-$ | US-20110005399-$ | US-20110008913-$ | US-20110020500-$ | US-20110033580-$ | US-20110041702-$ | US-20110064852-$).DID.				
S406	84	(US-0006685-$ | US-0055903-$ | US-0058226-$ | US-0059039-$ | US-0060697-$ | US-0064929-$ | US-0064937-$ | US-0070542-$ | US-0070543-$ | US-0070551-$ | US-0076361-$ | US-0084363-$ | US-0084376-$ | US-0089135-$ | US-0097041-$ | US-0097450-$ | US-0097602-$ | US-0100264-$ | US-0101716-$ | US-0121765-$ | US-0122153-$ | US-0123106-$ | US-0125762-$ | US-0126834-$ | US-0142996-$ | US-0183657-$ | US-0189350-$ | US-0189362-$ | US-0195155-$ | US-0201933-$ | US-0207893-$ | US-0207895-$ | US-0212225-$ | US-0250333-$ | US-0250812-$ | US-0251668-$ | US-0251672-$ | US-0258210-$ | US-0295234-$ | US-0303095-$ | US-0308397-$ | US-0308688-$ | US-20110076361-$ | US-20110089135-$ | US-20110097450-$ | US-20110142996-$ | US-20110189350-$ | US-20110189362-$ | US-20110212225-$ | US-20110250333-$ | US-20110250812-$ | US-20110303095-$ | US-20110308397-$ | US-20120006685-$ | US-	US-PGPUB; USPAT	AND	ON	2022/03/23 22:21

		20120058226-$ | US-20120060697-$ | US-20120070542-$ | US-20120070543-$ | US-20120070551-$ | US-20120097041-$ | US-20120097602-$ | US-20120100264-$ | US-20120121765-$ | US-20120123106-$ | US-20120126834-$ | US-20120183657-$ | US-20120195155-$ | US-20120201933-$ | US-20120207893-$ | US-20120207895-$ | US-20120251668-$ | US-20120251672-$ | US-20120258210-$ | US-20120295234-$ | US-20120308688-$ | US-20130055903-$ | US-20130059039-$ | US-20130064929-$ | US-20130064937-$ | US-20130084363-$ | US-20130084376-$ | US-20130101716-$ | US-20130122153-$ | US-20130125762-$).DID.				
S407	84	(US-0001563-$ | US-0004231-$ | US-0010680-$ | US-0017359-$ | US-0020481-$ | US-0029702-$ | US-0046126-$ | US-0056331-$ | US-0056340-$ | US-0127364-$ | US-0129872-$ | US-0129876-$ | US-0136828-$ | US-0141128-$ | US-0141129-$ | US-0149424-$ | US-0156897-$ | US-0161936-$ | US-0178538-$ | US-0196608-$ | US-0206011-$ | US-0209610-$ | US-0209618-$ | US-0209619-$ | US-0209620-$ | US-0209622-$ | US-0216663-$ | US-0220191-$ | US-0224130-$ | US-0230370-$ | US-0230627-$ | US-0243910-$ | US-0263033-$ | US-0272018-$ | US-0287104-$ | US-0287105-$ | US-0302204-$ | US-0312619-$ | US-0327223-$ | US-0346022-$ | US-0348984-$ | US-0370181-$ | US-20130129872-$ | US-20130129876-$ | US-20130136828-$ | US-20130149424-$ | US-20130156897-$ | US-20130206011-$ | US-20130209610-$ | US-20130209618-$ | US-20130209619-$ | US-20130209620-$ | US-20130209622-$ | US-20130216663-$ | US-20130230627-$ | US-20130243910-$ | US-20130312619-$ | US-20130327223-$ | US-20140001563-$	US-PGPUB; USPAT	AND	ON	2022/03/23 22:23

		| US-20140004231-$ | US-20140017359-$ | US-20140046126-$ | US-20140127364-$ | US-20140141128-$ | US-20140141129-$ | US-20140161936-$ | US-20140178538-$ | US-20140196608-$ | US-20140220191-$ | US-20140224130-$ | US-20140230370-$ | US-20140263033-$ | US-20140272018-$ | US-20140287104-$ | US-20140287105-$ | US-20140302204-$ | US-20140346022-$ | US-20140348984-$ | US-20140370181-$ | US-20150010680-$ | US-20150020481-$ | US-20150029702-$ | US-20150056331-$ | US-20150056340-$).DID.				
S408	78	(US-0001968-$ | US-0020329-$ | US-0027374-$ | US-0037961-$ | US-0045060-$ | US-0056351-$ | US-0058234-$ | US-0066591-$ | US-0075506-$ | US-0079241-$ | US-0086986-$ | US-0119220-$ | US-0128525-$ | US-0132441-$ | US-0157164-$ | US-0158665-$ | US-0158666-$ | US-0166204-$ | US-0173558-$ | US-0175347-$ | US-0194146-$ | US-0201790-$ | US-0207696-$ | US-0239652-$ | US-0242594-$ | US-0246741-$ | US-0251150-$ | US-0269232-$ | US-0274411-$ | US-0297021-$ | US-0297023-$ | US-0314954-$ | US-0325921-$ | US-0329282-$ | US-0332759-$ | US-0340110-$ | US-0353275-$ | US-0359418-$ | US-0375926-$ | US-20150056351-$ | US-20150079241-$ | US-20150119220-$ | US-20150128525-$ | US-20150132441-$ | US-20150157164-$ | US-20150158665-$ | US-20150158666-$ | US-20150166204-$ | US-20150173558-$ | US-20150175347-$ | US-20150201790-$ | US-20150239652-$ | US-20150246741-$ | US-20150274411-$ | US-20150297021-$ | US-20150297023-$ | US-20150314954-$ | US-20150329282-$ | US-20150353275-$ | US-20150375926-$ | US-20160001968-$ | US-20160037961-$ | US-20160045060-$	US-PGPUB; USPAT	AND	ON	2022/03/23 22:26

		| US-20160058234-$ | US-20160066591-$ | US-20160075506-$ | US-20160194146-$ | US-20160207696-$ | US-20160242594-$ | US-20160251150-$ | US-20160325921-$ | US-20160332759-$ | US-20160340110-$ | US-20170020329-$ | US-20170027374-$ | US-20190359418-$ | US-20210086986-$ | US-20210269232-$).DID.				
S409	15	(US-0051478-$ | US-0156897-$ | US-2327021-$ | US-2399283-$ | US-2399290-$ | US-2400033-$ | US-2436389-$ | US-2531544-$ | US-2538256-$ | US-2661921-$ | US-2662069-$ | US-2662071-$ | US-2763746-$ | US-2784752-$ | US-2785843-$).DID.	US-PGPUB; USPAT	AND	ON	2022/03/23 22:30
S410	170	"6440256"	US-PGPUB; USPAT	AND	ON	2022/03/23 22:30
S411	162	"6440256"	USPAT	AND	ON	2022/03/23 22:30
S412	165	"6589577"	USPAT	AND	ON	2022/03/23 22:31
S413	338	99/286,289R,295,302R,307,323.ccls. and (capsule or cartridge) and (barcode or RFID or identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2022/03/23 22:32
S414	338	99/286,289R,295,302R,307,323.ccls. and (capsule or cartridge) and (barcode or RFID or identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 22:32
S415	432	B65D85/8043.cpc. and (capsule or cartridge) and (barcode or RFID or identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 22:33
S416	158	A47J31/3628.cpc. and (capsule or cartridge) and (barcode or RFID or identif$4)	US-PGPUB; USPAT; USOCR;	AND	ON	2022/03/23 22:34

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S417	940	A47J31/4492.cpc. and (capsule or cartridge) and (barcode or RFID or identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 22:36
S418	228	B65D65/466.cpc. and (capsule or cartridge) and (barcode or RFID or identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 22:41
S419	388	B65D2203/06.cpc. and (capsule or cartridge) and (barcode or RFID or identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 22:43
S420	374	B65D2203/10.cpc. and (capsule or cartridge) and (barcode or RFID or identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 22:47
S421	327	"6607762"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 22:54
S422	272	"6607762"	USPAT	AND	ON	2022/03/23 22:55
S423	260	"6645537"	USPAT	AND	ON	2022/03/23 22:55
S424	31	"6861086"	USPAT	AND	ON	2022/03/23 22:56
S425	84	"7946217"	USPAT	AND	ON	2022/03/23 22:56

S426	2	"20050051478"	US-PGPUB	AND	ON	2022/03/23 22:56
S427	13	"8512886"	USPAT	AND	ON	2022/03/23 22:57
S428	29	"8039029"	USPAT	AND	ON	2022/03/23 22:57
S429	14	"8491948"	USPAT	AND	ON	2022/03/23 22:57
S430	18	"8114461"	USPAT	AND	ON	2022/03/23 22:58
S431	15	"9204751"	USPAT	AND	ON	2022/03/23 23:00
S432	7	"20130156897"	US-PGPUB; USPAT	AND	ON	2022/03/23 23:00
S433	19	"9428328"	US-PGPUB; USPAT	AND	ON	2022/03/23 23:01
S434	160	"8361527"	US-PGPUB; USPAT	AND	ON	2022/03/23 23:01
S435	9	"20140127364"	US-PGPUB; USPAT	AND	ON	2022/03/23 23:01
S436	18	"20140141128"	US-PGPUB; USPAT	AND	ON	2022/03/23 23:02
S437	2	"20150020481"	US-PGPUB; USPAT	AND	ON	2022/03/23 23:02
S438	8	(US-20150157164-$ | US-20150119220-$ | US-9409704-$ | US-9969564-$ | US-20140161936-$ | US-20150353275-$ | US-20160075506-$ | US-20010181005-$ | US-20110064852-$).DID.	US-PGPUB; USPAT	AND	ON	2022/03/23 23:04
S439	18	CA "2902231"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:04
S440	10	(US-20150132441-$ | US-6527181-$ | US-20040115310-$ | US-5948455-$ | US-9409703-$ | US-9072402-$ | US-20130209619-$ | US-4860645-$ | US-4846052-$ | US-4676482-$).DID.	US-PGPUB; USPAT	AND	ON	2022/03/23 23:06
S441	49	DE "1207866"	US-PGPUB; USPAT; USOCR; FPRS;	AND	ON	2022/03/23 23:06

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S442	22	DE "1221960"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:07
S443	46	DE "3432339"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:07
S444	31	DE "102006004329"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:08
S445	25	DE "102010027485"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:09
S447	20	DE "102010034206"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:11
S448	114	DE "102011010534"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:11
S449	27	DE "102012110446"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	AND	ON	2022/03/23 23:13

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S451	23	"202006003115"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:14
S452	11	EP "0272432"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:15
S453	8	EP "0272432"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:15
S454	42	EP "0272922"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:15
S455	1,888,664	EP "0334572"	USPAT	OR	ON	2022/03/23 23:19
S456	19	EP "0334572"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:22
S457	34	EP "0455337"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:22
S458	39	EP "0468078"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:23

S459	91	EP "0468079"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:23
S460	152	EP "0512468"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:23
S461	2	EP "0569230"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:23
S462	42	EP "0638486"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:23
S463	14	EP "0656224"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:23
S464	36	EP "0844195"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:24
S465	110	EP "0859467"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:24
S466	4	EP "0923865"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:24
S467	24	EP "1129623"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:25
S468	10	(US-5242702-$ | US-5601716-$ | US-5917165-$ | US-6451332-$ | US-20020088807-$ | US-7543527-$ | US-20020110626-$ | US-7552672-$ | US-	US-PGPUB; USPAT	AND	ON	2022/03/23 23:27

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S469	36	EP "1273528"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:29
S470	33	"1344724"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:30
S471	27	EP "1344724"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:30
S472	25	EP "1471012"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:30
S473	57	EP "1710173"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:31
S474	17	EP "1772398"	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:34
S475	10	(US-8101928-$ | US-20070148290-$ | US-8109200-$ | US-8088423-$ | US-20090324791-$ | US-7543527-$ | US-20020110626-$ | US-7552672-$ | US-20050160919-$ | US-20080148948-$).DID.	US-PGPUB; USPAT	AND	ON	2022/03/23 23:36
S476	11	(US-8101928-$ | US-20070148290-$ | US-8109200-$ | US-8088423-$ | US-20090324791-$ | US-20080024536-$ | US-20100050880-$ | US-8734881-$ | US-8257766-$ | US-20110041702-$ | US-8956672-$).DID.	US-PGPUB; USPAT	AND	ON	2022/03/23 23:37
S477	23	EP "1772398"	US-PGPUB; USPAT	AND	ON	2022/03/23 23:37
S478	17	EP "1772398"	FPRS; EPO; JPO;	AND	ON	2022/03/23 23:37

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S479	43	EP "1849718"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:38
S480	66	EP "1859713"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:38
S481	21	EP "1882432"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:38
S482	25	EP "1892199"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:39
S483	30	EP "2012994"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:39
S484	68	EP "2218653"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:39
S485	49	EP "2284102"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:40
S486	32	EP "2412645"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:41
S487	27	EP "2537778"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:41
S488	57	FR "2556323"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:42
S489	29	FR "2912124"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:42

S490	12	GB "1402799"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:45
S491	17	GB "2469874"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/23 23:47
S492	12	(US-20110250333-$ | US-20100172951-$ | US-20130216663-$ | US-20120195155-$ | US-9434525-$ | US-20130064937-$ | US-20210086986-$ | US-20140346022-$ | US-20190359418-$ | US-20210269232-$ | US-5194553-$ | US-20130122153-$).DID.	US-PGPUB; USPAT	AND	ON	2022/03/23 23:50
S493	20	(US-9357791-$ | US-20030172813-$ | US-20030033938-$ | US-20040115310-$ | US-20050150391-$ | US-7408094-$ | US-7673558-$ | US-20100000667-$ | US-20100051532-$ | US-20130206011-$ | US-9277837-$ | US-9049958-$ | US-5460078-$ | US-20100303964-$ | US-20030121979-$ | US-20040089158-$ | US-20050266122-$ | US-20050266122-$ | US-20060228447-$ | US-20070157821-$ | US-20050183581-$).DID.	US-PGPUB; USPAT	AND	ON	2022/03/23 23:59
S494	1	JP "02289207"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:00
S495	17	JP "2001017094"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:01
S496	5	JP "2001082699"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:02
S497	5	JP "2001250161"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:02
S498	6	JP "2002274000"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:03

S499	4	JP "2002347852"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:03
S500	11	JP "2003235733"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:04
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S506	2	JP "62168512"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:07
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S508	0	KR "1020050107747"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:08
S509	0	KR "1020050107747"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:08
S510	118	WO "0228241"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:09

S511	19	WO "2004065258"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:10
S512	62	WO "2005044067"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:10
S513	13	WO "2005047111"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:11
S514	13	WO "2006108578"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:11
S515	12	WO "2007042486"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:11
S516	65	WO "2007114685"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:12
S517	20	WO "2007122144"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:13
S518	17	WO "2007122208"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:14
S519	92	WO "2008132571"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:15
S520	17	WO "2009084061"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:15
S521	15	WO "2009112291"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:15
S522	18	WO "2009153161"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:15

S523	49	WO "2010007633"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:16
S524	17	WO "2010013146"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:16
S525	60	WO "2010026053"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:16
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S529	15	WO "2010085824"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:18
S530	19	WO "2010118545"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:18
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S532	12	WO "2010125329"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:19
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S535	46	WO "2011141532"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:26
S536	14	WO "2012019902"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:26
S537	8	WO "2014004231"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:27
S538	8	WO "2014004564"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:27
S539	8	(US-20150173558-$ | US-20150314954-$ | US-20150329282-$ | US-20150375926-$ | US-20160194146-$ | US-20160251150-$ | US-6025000-$ | US-5895672-$).DID.	US-PGPUB; USPAT	AND	ON	2022/03/24 00:31
S540	19	WO "2015075584"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:32
S541	14	WO "2015107484"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:33
S542	5	WO "2016077916"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:33
S543	5	WO "9851396"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:34

S544	21	WO "9903753"	FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2022/03/24 00:34

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S141	33	"99".clas. and ((capsule) and (piercing)).clm.	USPAT	OR	OFF	2018/10/17 13:30
S142	74	"99".clas. and ((capsule or cartridge) and (piercing)).clm.	USPAT	OR	OFF	2018/10/17 13:58
S145	33	99/286,289R,295,302R,307,323.ccls. and ((capsule) and (piercing)).clm.	USPAT	AND	ON	2018/10/19 10:49
S146	0	"13326291"	USPAT	AND	ON	2018/10/19 11:13
S344	124	"99".clas. and ((coffee) and (chamber or receptacle) and (spring)).clm.	USPAT	OR	OFF	2021/12/13 13:57
S346	138	"99".clas. and ((coffee) and (chamber or receptacle or holder) and (spring)).clm.	USPAT	OR	OFF	2021/12/22 09:44
S347	46	"4882982"	USPAT	OR	OFF	2021/12/22 10:11
S348	0	"16900462"	USPAT	OR	OFF	2021/12/22 10:45

3/24/2022 1:03:58 AM
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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/547,363	12/10/2021	Marc Kruger	1859.029USC12

CONFIRMATION NO. 6426

25215
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Pontiac, MI 48342

PUBLICATION NOTICE



Title:PORTION CAPSULE HAVING AN IDENTIFIER

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NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

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Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

Filed via EFS @ USPTO.gov on May 25, 2022
Practitioner's Docket No. 1859.029USC12

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Marc Krüger	Art Unit: 3761
Application No.: 17/547,363	Examiner: Chou, Jimmy
Filed: December 10, 2021	Conf. No.: 6426

For: PORTION CAPSULE HAVING AN IDENTIFIER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Applicant submits this statement in accordance with its duty of disclosure under 37 C.F.R. §§ 1.56, 1.97, and 1.98. The submission made herewith is in no way intended as an admission that the cited items constitute material prior art or otherwise would render the claims unpatentable in any way. The submission also is in no way intended to substitute for the Examiner's own independent investigation.

Copies of foreign patent documents and non-patent literature, together with a listing on form PTO/SB/08a are submitted herewith.

This Information Disclosure Statement is being submitted after the mailing of a first Office Action and before a Notice of Allowance. A fee of $260.00 is believed to be due; however, if any additional fee is due with the filing of this paper, please charge the amount to Deposit Account 50-1097.

Date: May 25, 2022

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	3761
	Examiner Name	Chou, Jimmy
	Attorney Docket Number	1859.029USC12

U.S. PATENTS					
Examiner Initials*	Cite No.	Patent Number	Kind Code	Issue Date	Name of Patentee or Applicant of cited Document
	1.	D734,665	S	07/21/2015	Cahen et al.
	2.	3,744,026		07/03/1973	Wolff
	3.	6,079,315	A	06/27/2000	Beaulieu et al.
	4.	7,412,921	B2	08/19/2008	Hu et al.
	5.	9,756,974	B2	09/12/2017	Rivera
U.S. PATENT APPLICATION PUBLICATIONS					
Examiner Initials*	Cite No.	Publication Number	Kind Code	Publication Date	Name of Patentee or Applicant of cited Document
	1.	2002/0144603	A1	10/10/2002	Taylor
	2.	2010/0078480	A1	04/01/2010	Aker
	3.	2010/0129512	A1	05/27/2010	Accursi
	4.	2013/0014648	A1	01/17/2013	Rognon et al.
	5.	2013/0236609	A1	09/12/2013	Magniet et al.
	6.	2014/0242239	A1	08/28/2014	Boggavarapu
	7.	2015/0017293	A1	01/15/2015	Carr et al.
	8.	2015/0047509	A1	02/19/2015	Trombetta et al.
	9.	2015/0225169	A1	08/13/2015	Jarisch
	10.	2015/0368033	A1	12/24/2015	Krug et al.
	11.	2016/0130076	A1	05/12/2016	Jarisch
	12.	2016/0174757	A1	06/23/2016	Rivera
	13.	2017/0071395	A1	03/16/2017	Krüger et al.
	14.	2017/0295988	A1	10/19/2017	Chung
	15.	2018/0325309	A1	11/15/2018	Short et al.
	16.	2019/0055084	A1	02/21/2019	D'Urso

FOREIGN PATENT DOCUMENTS							
Examiner Initial*	Cite No.	Foreign Document Number	Country Code	Kind Code	Publication Date	Name of Patentee or Applicant of cited Document	T[5]
	1.	2780866	EP	B1	09/24/2014	Jarisch et al.	
	2.	S6415233	JP	A	01/19/1989	Shioyama	Abs.
	3.	2014/191044	WO	A1	12/04/2014	Doglioni	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	3761
	Examiner Name	Chou, Jimmy
	Attorney Docket Number	1859.029USC12

NON-PATENT LITERATURE DOCUMENTS			
Examiner Initial*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1.	Nespreso Vertuo Plus User Manual, accessed on April 22, 2022, from: https://www.nespresso.com/shared_res/manuals/vertuoline/www_VERTUOPLUS_C_NESPRESSO_Z1(EN_FR_ES).pdf, and under Document Properties in Adobe includes a 10/6/2016 Created Date and a 10/6/2016 Modified Date.	
	2.	Final Order On Claim Construction, dated March 10, 2022, in Case No. 2:21-cv-03402-GW (AGRx)	
	3.	Non-Final Office Action in US 17/670,629, dated April 15, 2022 (Atty. Docket No. 1859.029USC13)	
	4.	Non-Final Office Action in US 17/670,765, dated April 15, 2022 (Atty. Docket No. 1859.029USC14)	
	5.	Petitioner's Request For Rehearing Of The PTAB's Denial of Inter Partes Review of U.S. Patent No. 10,858,176, filed on February 17, 2022.	
	6.	Petitioner's Request For Rehearing Of The PTAB's Denial of Inter Partes Review of U.S. Patent No. 10,858,177, filed on February 17, 2022.	
	7.	Petitioner's Request For Rehearing Of The PTAB's Denial of Inter Partes Review of U.S. Patent No. 10,870,531, filed on February 17, 2022.	
	8.	Redacted Memorandum Of Points And Authorities In Support Of Nespresso USA, INC.'s Motion For Summary Judgement of Noninfringement, dated April 01, 2022, in Case No. 2:21-cv-03402-GW (AGRx)	
	9.	Redacted Nespresso USA, INC.'S Separate Statement Of Uncontroverted Facts And Conclusions Of Law In Support Of Its Motion For Summary Judgement Of Noninfringement, dated April 01, 2022, in Case No. 2:21-cv-03402-GW (AGRx)	
	10.	Redacted Declaration of Christian Jarisch, dated March 30, 2022, and filed in Case No. 2:21-cv-03402-GW (AGRx) on April 01, 2022.	
	11.	Opposition Appeal Against EP 3023362, dated December 20, 2021, and appended documents.	
	12.	Exhibit 1045 (English Translation of DE 10 2011 010 534.4) filed by Nespresso USA in IPR2021-01223	
	13.	Exhibit 1046 (English Translation of DE 10 2010 031 988.0) filed by Nespresso USA in IPR2021-01223	
	14.	Exhibit 1047 (English Translation of DE 10 2010 044 251.8) filed by Nespresso USA in IPR2021-01223	
	15.	Third Party Observations against EP 19 165 220.5 (3 533 726), filed by Société des Produits Nestle S.A., August 26, 2021	
	16.	Opposition against EP 3 521 209, filed by Société des Produits Nestle	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	3761
	Examiner Name	Chou, Jimmy
	Attorney Docket Number	1859.029USC12

		S.A., January 22, 2020	

EXAMINER SIGNATURE			
Examiner Signature		Date Considered	
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

IPR2024-00239
Nespresso USA, Inc. Ex. 1002
Page 366 of 598

Electronic Patent Application Fee Transmittal

Application Number:	17547363
Filing Date:	10-Dec-2021
Title of Invention:	PORTION CAPSULE HAVING AN IDENTIFIER
First Named Inventor/Applicant Name:	Marc Krüger
Filer:	Paul J. Palinski/BECKY BALLARD
Attorney Docket Number:	1859.029USC12

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	1806	1	260	260
		Total in USD ($)		**260**

Electronic Acknowledgement Receipt

EFS ID:	45796215
Application Number:	17547363
International Application Number:	
Confirmation Number:	6426
Title of Invention:	PORTION CAPSULE HAVING AN IDENTIFIER
First Named Inventor/Applicant Name:	Marc Krüger
Customer Number:	25215
Filer:	Paul J. Palinski/BECKY BALLARD
Filer Authorized By:	Paul J. Palinski
Attorney Docket Number:	1859.029USC12
Receipt Date:	25-MAY-2022
Filing Date:	10-DEC-2021
Time Stamp:	11:36:33
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$260
RAM confirmation Number	E20225OB36543692
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Foreign Reference	EP2780866B1.pdf	8257743 ba6de29953d7281cfeeb8a3df5a4a7891da7d660	no	31
Warnings:					
Information:					
2	Foreign Reference	JPS6415233A.pdf	400571 3dd969ac9cd9408ab8003a08c55dbd65f94e8b32	no	5
Warnings:					
Information:					
3	Foreign Reference	WO2014191044A1.pdf	4428398 6cf877c01ff8f3914e6630067e412eb05bd63399	no	64
Warnings:					
Information:					
4	Non Patent Literature	1_NespresoVertuoPlusUserManual.pdf	3829446 df632827d319455e8c17c94ec2fb0b6e9db9f7f4	no	60
Warnings:					
Information:					
5	Non Patent Literature	2_FinalOrderOnClaimConstruction.pdf	5314306 a2873b2fa2d51a8de6216883a19bd8813eb46353	no	25
Warnings:					
Information:					
6	Non Patent Literature	3_NFOA_Dated20220415_1859_029USC13.pdf	2639144 1f6c3b6bb6d884fb68b6f22005a70050d23ee978	no	54
Warnings:					
Information:					

7	Non Patent Literature	4_NFOA_Dated20220415_1859_029USC14.pdf	2574856 786c1658a87f01ba1c9d4589ce4f90186c11eede	no	53
Warnings:					
Information:					
8	Non Patent Literature	5_RequestForRehaeringOf_US10858176.pdf	220433 e24bfa58168c0ecfccd7b419ce4e66972a14eac3	no	21
Warnings:					
Information:					
9	Non Patent Literature	6_RequestForRehaeringOf_US10858177.pdf	221011 a1a01c0e704d9d127f881ead7f55fc20522bee04	no	21
Warnings:					
Information:					
10	Non Patent Literature	7_RequestForRehaeringOf_US10870531.pdf	219974 e5a275dccc208e0ceabe76b31750fd66ed84e21c	no	21
Warnings:					
Information:					
11	Non Patent Literature	8_MemorandumOfPointAndAuthorities.pdf	646075 0cdd5b24dcce1e55033cc31471c71407cba147e9	no	16
Warnings:					
Information:					
12	Non Patent Literature	9_NespressoUSA_INCSSeparateStatemenOfUncontrovertedFacts.pdf	318746 c46b20858fa93e906330240dd70905c99a2356bb	no	6
Warnings:					
Information:					
13	Non Patent Literature	10_DeclarationOfChristianJarischDatedMarch302022.pdf	1577843 c3fb4649e20e9beca0bd51266403c0e127cd052d	no	10
Warnings:					
Information:					

14	Non Patent Literature	11_OppositionAppealAgainstEP3023362.pdf	7162945 a20115bd3aacf547656d0206cbf5ac5f01e74e07	no	121
Warnings:					
Information:					
15	Non Patent Literature	12_Ex_1045_DE102010010534.pdf	619533 47de32d4f05a475dafb249f5b4b4ad55edba77bb	no	35
Warnings:					
Information:					
16	Non Patent Literature	13_Ex_1046_DE102010031988.pdf	415749 95d0734897f575a03d7091db06030b41764b5b26	no	41
Warnings:					
Information:					
17	Non Patent Literature	14_Ex_1047_DE102010044251.pdf	299164 5111f2fe30ece906db9580f8af269383e9fd613b	no	20
Warnings:					
Information:					
18	Non Patent Literature	15_ThirdPartyObservations.pdf	3043202 ae01571e5d2cdf40d8809172d0796cd922219ef37	no	54
Warnings:					
Information:					
19	Non Patent Literature	16_NoticeOfOpposition22012020.pdf	4560950 4e312e92b6b29a44538996b58669994a36606556	no	77
Warnings:					
Information:					
20	Information Disclosure Statement (IDS) Form (SB08)	Supplemental_IDS_1859_029USC12.pdf	167703 ca5ab5daa0e34b70132f5e7f21f25e7cb649a9b4	no	4
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					

21	Fee Worksheet (SB06)	fee-info.pdf	38150 38afcf89296961dd250ce728b3480041764cab80	no	2

Warnings:	
Information:	
Total Files Size (in bytes):	46955942

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/547,363	12/10/2021	Marc Krüger	1859.029USC12	6426

25215 7590 06/17/2022

The Dobrusin Law Firm P.C.
29 W. Lawrence Street
Suite 210
Pontiac, MI 48342

EXAMINER	
CHOU, JIMMY	

ART UNIT	PAPER NUMBER
3761	

NOTIFICATION DATE	DELIVERY MODE
06/17/2022	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

dobrusin_PAIR@firsttofile.com
patmail@patentco.com
rmasquelier@patentco.com

Applicant-Initiated Interview Summary	**Application No.** 17/547,363	**Applicant(s)** Krüger, Marc		
	Examiner JIMMY CHOU	**Art Unit** 3761	**AIA (First Inventor to File) Status** No	**Page** 1 of 2

All Participants (applicant, applicants representative, PTO personnel)	**Title**	**Type**
JIMMY CHOU	Primary Examiner	Telephonic
Paul Palinski	Attorney of Record	

Date of Interview: 14 June 2022

Issues Discussed:

Proposed Amendment(s)

The attorney agreed not to amend the claim. Thus, proposed amendment to claims in the agenda will not be enter.

Drawings

The attorney stated that the support can be found on "On pg 6, at lines 23-26. On pg.9, i.e., what has been said in relation to the identifier applies to all other examples ... as symbolized by the arrow 15. Examiner noted that the arrow pointed at the bottom side of flange of a capsule. Examiner agreed that fig.16A is an example of the capsule that can be with a beverage machine. Thus, drawing objections will be withdrawn.

Other

1. Discuss about Foreign priority document. The attorney stated that the support can be found on "On pg 6, at lines 23-26. On pg.9, i.e., what has been said in relation to the identifier applies to all other examples ... as symbolized by the arrow 15. Examiner noted that the arrow pointed at the bottom side of flange of a capsule. Examiner agreed that fig.16A is an example of the capsule that can be with a beverage machine. Thus, priority notification will be withdrawn.

2. The attorney agreed to file terminal disclaimer with respect to US 11254491.

/JIMMY CHOU/ Primary Examiner, Art Unit 3761	

Applicant is reminded that a complete written statement as to the substance of the interview must be made of record in the application file. It is the applicants responsibility to provide the written statement, unless the interview was initiated by the Examiner and the Examiner has indicated that a written summary will be provided. See MPEP 713.04
Please further see:
MPEP 713.04
Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews, paragraph (b)
37 CFR § 1.2 Business to be transacted in writing

Applicant-Initiated Interview Summary	**Application No.** 17/547,363	**Applicant(s)** Krüger, Marc		
	Examiner JIMMY CHOU	**Art Unit** 3761	**AIA (First Inventor to File) Status** No	**Page** **2 of 2**

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 17/547,363	Filing Date 12/10/2021	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $100 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $480 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	07/01/2022	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 2	Minus	*** 3	= 0		x $480 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	SLIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/DESHONNE T. MARTINO-RAY/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Doc Code: DIST.E.FILE Document Description: Electronic Terminal Disclaimer - Filed	PTO/SB/25 PTO/SB/26 U.S. Patent and Trademark Office Department of Commerce

Electronic Petition Request	**TERMINAL DISCLAIMER TO OBVIATE A PROVISIONAL DOUBLE PATENTING REJECTION OVER A PENDING "REFERENCE" APPLICATION AND TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING REJECTION OVER A "PRIOR" PATENT**
Application Number	17547363
Filing Date	10-Dec-2021
First Named Inventor	Marc Krüger
Attorney Docket Number	1859.029USC12
Title of Invention	PORTION CAPSULE HAVING AN IDENTIFIER

☒ Filing of terminal disclaimer does not obviate requirement for response under 37 CFR 1.111 to outstanding Office Action

☒ This electronic Terminal Disclaimer is not being used for a Joint Research Agreement.

Owner	Percent Interest
K-FEE SYSTEM GMBH	100 %

The owner(s) of percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending reference Application Number(s)

17547363 filed on 12/10/2021

as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the reference application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term of any patent granted on said reference application, "as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application," in the event that any such patent granted on the pending reference application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.

The owner(s) with percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of prior patent number(s)

as the term of said prior patent is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the prior patent, "as the term of said prior patent is presently shortened by any terminal disclaimer," in the event that said prior patent later:
- expires for failure to pay a maintenance fee;
- is held unenforceable;
- is found invalid by a court of competent jurisdiction;
- is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;
- has all claims canceled by a reexamination certificate;
- is reissued; or
- is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

(●) Terminal disclaimer fee under 37 CFR 1.20(d) is included with Electronic Terminal Disclaimer request.

( ) I certify, in accordance with 37 CFR 1.4(d)(4), that the terminal disclaimer fee under 37 CFR 1.20(d) required for this terminal disclaimer has already been paid in the above-identified application.

Applicants claims the following fee status:

( ) Small Entity

( ) Micro Entity

(●) Regular Undiscounted

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

THIS PORTION MUST BE COMPLETED BY THE SIGNATORY OR SIGNATORIES

I certify, in accordance with 37 CFR 1.4(d)(4) that I am:

(●) An attorney or agent registered to practice before the Patent and Trademark Office who is of record in this application

Registration Number 71080

( ) A sole inventor

( ) A joint inventor; I certify that I am authorized to sign this submission on behalf of all of the inventors as evidenced by the power of attorney in the application

( ) A joint inventor; all of whom are signing this request

Signature	/Paul J. Palinski/
Name	Paul J. Palinski

*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).
Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

Electronic Patent Application Fee Transmittal

Application Number:	17547363
Filing Date:	10-Dec-2021
Title of Invention:	PORTION CAPSULE HAVING AN IDENTIFIER
First Named Inventor/Applicant Name:	Marc Krüger
Filer:	Paul J. Palinski/BECKY BALLARD
Attorney Docket Number:	1859.029USC12

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
STATUTORY OR TERMINAL DISCLAIMER	1814	1	170	170
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**170**

Doc Code: DISQ.E.FILE
Document Description: Electronic Terminal Disclaimer – Approved

Application No.: 17547363

Filing Date: 10-Dec-2021

Applicant/Patent under Reexamination: Krüger

Electronic Terminal Disclaimer filed on July 1, 2022

☒ APPROVED

This patent is subject to a terminal disclaimer

☐ DISAPPROVED

Approved/Disapproved by: Electronic Terminal Disclaimer automatically approved by EFS-Web

U.S. Patent and Trademark Office

Electronic Acknowledgement Receipt

EFS ID:	46089374
Application Number:	17547363
International Application Number:	
Confirmation Number:	6426
Title of Invention:	PORTION CAPSULE HAVING AN IDENTIFIER
First Named Inventor/Applicant Name:	Marc Krüger
Customer Number:	25215
Filer:	Paul J. Palinski/BECKY BALLARD
Filer Authorized By:	Paul J. Palinski
Attorney Docket Number:	1859.029USC12
Receipt Date:	01-JUL-2022
Filing Date:	10-DEC-2021
Time Stamp:	10:51:38
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$170
RAM confirmation Number	E202271A51324817
Deposit Account	
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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Terminal Disclaimer-Filed (Electronic)	eTerminal-Disclaimer.pdf	46007 5d5ee6f69843580479d363a2213d407d4ee2c7fa	no	3
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	38020 800591787c0765aba74a075dd07cab81898bdbe5	no	2
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National Stage of an International Application under 35 U.S.C. 371

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New International Application Filed with the USPTO as a Receiving Office

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Marc KRÜGER	Group Art Unit: 3761
Serial No.: 17/547,363	Examiner: Chou, Jimmy
Filed: December 10, 2021	Confirmation No: 6426

For: PORTION CAPSULE HAVING AN IDENTIFIER

Attorney Docket No.: 1859.029USC12 (KRU0022-WO-US-T13)

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE;
AMENDMENT; AND
INTERVIEW SUMMARY

In response to the Office Action mailed April 4, 2022, please amend the above-identified application as follows and consider the following remarks.

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AMENDMENTS TO CLAIMS

1) – 9) (Cancelled)

10) (Currently Amended) A beverage system comprising:

A) a single-serve capsule comprising:

i) a base element with a cavity, in which a beverage material is provided, the base element including a wall that is symmetrical about a central longitudinal axis thereof and having a closed, rounded bottom portion, the base element is free of a filter inside of the cavity;

ii) a flange extending outwardly from the base element, the flange having a top side and an opposing bottom side;

iii) a cover fastened to the top side of the flange, the cover is bowed outwardly in a central region of the cover relative to a peripheral region of the cover, the cover includes a region configured to be pierced at a location that is offset from the central longitudinal axis;

iv) a barrier layer to prevent moisture or aroma from escaping out of the single-serve capsule; and

v) an individualization identifier, which includes an optically detectable repeat pattern, provided on the bottom side of the flange;

B) a beverage machine comprising:

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i) a capsule receptacle having a wall structure ~~that receives~~into which the single-serve capsule is received, the capsule receptacle defined by a base portion and an annular portion laterally extending outwardly from the base portion in a direction ~~along a plane~~ that is transverse to a longitudinal axis of the capsule receptacle~~,~~;

ii) a chamfered mandrel that pierces the cover at the location that is offset from the central longitudinal axis;

iii) an optical sensor/detector positioned outside of the base portion of the wall structure of the capsule receptacle ~~holder~~ and below the annular portion, which directs a beam through a portion of the wall structure to read the identifier on the single-serve capsule~~,~~;

iv) a pump that supplies water into the single-serve ~~portion~~ capsule only after the individualization identifier is read by the sensor/detector;

v) a groove that is laterally offset from the chamfered mandrel; and

vi) a seal that is at least partially seated in the groove and configured to bear against a top side of the cover in a region between the peripheral ~~edge~~ region of the cover and the region of the cover that is pierced by the chamfered mandrel.

11) (Previously Presented) The beverage system according to claim 10, wherein the pump is rendered inoperable if there is a determination that the single-serve capsule is not compatible with the beverage machine.

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12) (Previously Presented) The beverage system according to claim 11, wherein the pump supplies the water into the single-serve capsule only after the identifier is compared to a stored reference.

13) (Previously Presented) The beverage system according to claim 11, wherein the beverage machine comprises a waste container for the single-serve capsule to fall into.

14) (Previously Presented) The beverage system according to claim 13, wherein the beverage machine comprises a pair of holding arms for guiding the single-serve capsule.

15) (Previously Presented) The beverage system according to claim 12, wherein the base element comprises an exterior wall that includes a plurality of indentations arranged about the central longitudinal axis.

16) (Previously Presented) The beverage system according to claim 15, wherein the cavity is defined by an inside wall that includes a ledge at an upper region thereof, the ledge projects from the inside wall towards the central longitudinal axis.

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17) (Previously Presented) The beverage system according to claim 15, wherein the identifier is located on the exterior wall of the base element.

18) (Previously Presented) The beverage system according to claim 16, wherein the identifier is located on the exterior wall of the base element.

19) (Previously Presented) The beverage system according to claim 18, wherein the base element is made of metal, a biodegradable material, or plastic.

20) (Previously Presented) The beverage system according to claim 18, wherein the base element is deep drawn.

21) (Currently Amended) A beverage system comprising:

A) a single-serve capsule comprising:

i) a base element with a cavity, in which a beverage material is provided, the base element including a wall that is symmetrical about a central longitudinal axis thereof and having a closed, rounded bottom portion, the base element having an exterior wall that includes a plurality of indentations arranged about the central longitudinal axis, the base element is free of a filter inside of the cavity;

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ii) a flange extending outwardly from the base element, the flange having a top side and an opposing bottom side;

iii) a cover fastened to the top side of the flange, the cover is bowed outwardly in a central region of the cover relative to a peripheral region of the cover, the cover includes a region configured to be pierced at a location that is offset from the central longitudinal axis;

iv) a barrier layer to prevent moisture or aroma from escaping out of the single-serve capsule; and

v) an individualization identifier, which includes an optically detectable repeat pattern, provided on the bottom side of the flange;

B) a beverage machine comprising:

i) a capsule receptacle having a wall structure ~~that~~ into which ~~receives~~ the single-serve capsule is received, the capsule receptacle defined by a base portion and an annular portion laterally extending outwardly from the base portion in a direction~~along a plane~~ that is transverse to a longitudinal axis of the capsule receptacle,

ii) a chamfered mandrel that pierces the cover at the location that is offset from the central longitudinal axis;

iii) an optical sensor/detector positioned outside of the base portion of the wall structure of the capsule receptacle ~~holder~~ and below the annular portion, which directs a beam through a portion of the wall structure to read the identifier on the

single-serve capsule,

iv) a pump that supplies water into the single-serve ~~portion~~ capsule only after the individualization identifier is read by the sensor/detector;

v) a groove that is laterally offset from the chamfered mandrel; and

vi) a seal that is at least partially seated in the groove and configured to bear against a top side of the cover in a region between the peripheral ~~edge~~ region of the cover and the region of the cover that is pierced by the chamfered mandrel.

22) (Previously Presented) The beverage system according to claim 21, wherein the cavity is defined by an inside wall that includes a ledge at an upper region thereof, the ledge projects from the inside wall towards the central longitudinal axis, and wherein the cavity is free of a filter.

23) (Previously Presented) The beverage system according to claim 22, wherein the pump supplies the water into the single-serve capsule only after the identifier is compared to a stored reference, and the identifier is located on the exterior wall of the base element.

24) (Previously Presented) The beverage system according to claim 23, wherein the beverage machine comprises a waste container for the single-serve capsule to fall into and a pair of holding arms for guiding the single-serve capsule.

25) (Previously Presented) The beverage system according to claim 24, wherein the base element is made of metal, a biodegradable material, or plastic.

26) (Previously Presented) The beverage system according to claim 25, wherein the base element is deep drawn.

27) (Previously Presented) The beverage system according to claim 22, wherein the base element and/or the cover are made of aluminum.

28) (Previously Presented) The beverage system according to claim 22, wherein the base element has an exterior wall region with an electrically conductive section, and the identifier is located on the exterior wall region.

29) (Previously Presented) The beverage system according to claim 28, wherein the identifier has a plurality of matte and reflective zones, and the base element and the cover are made of the same material.

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REMARKS

Interview Summary

Applicant thanks Examiner Chou for the courtesies extended to Applicant's representative Paul Palinski during the telephonic interview conducted on June 14, 2022 and for the Examiner's Interview Summary dated June 17, 2022. Applicant also thanks Examiner Chou for acknowledging that Applicant was in possession of the claimed subject matter in the priority applications and agreeing to withdraw both of the drawing objection and the priority notification in the Office Action. Before the Interview, Applicant's representative provided Examiner Chou an Agenda, which included a proposed claim amendment only for discussion purposes. As Examiner Chou agreed to withdraw the drawing objection and the priority notification, the proposed claim amendment was not discussed during the Interview and it was agreed during the Interview that the proposed claim amendment would not be entered. To ensure a complete Interview Summary, Applicant has filed the proposed claim amendment in Applicant's co-pending application no. US 17/108,175. Further details about the Interview are included below.

Priority

It is alleged on pages 2-4 of the Office Action that the pending claims in this application are not entitled to the benefit of the claimed priority dates. This allegation is respectfully traversed.

Applicant thanks the Examiner for agreeing during the Interview to withdraw this priority notification. As discussed during the Interview, for purposes of entitlement to the priority application filing dates, it is Applicant's belief (particularly in accordance with current case law) that the description of the presently claimed combinations (within the four corners of the priority applications) is sufficient to demonstrate to a skilled person with reasonable clarity that the inventor had possession of the claimed subject matter. It appeared to have been understood by the Examiner that the support need not have been verbatim, and that the drawings taken in connection with the text portion of the specification (including the multiple dependent claims) was to be considered.

More particularly, during the Interview, among other things, Applicant's representative pointed out specifically that the skilled person would have taken into consideration that priority applications each had passages, (examples of which the Examiner identified in his Interview

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Summary), which made reference to the teachings as applicable to the various embodiments; and the generalized teachings preceding the description of the drawings, found in at least the September 2, 2010 priority application translation) would be applicable to other embodiments and that the Inventor contemplated combinations of features from the various embodiments as reflected, for instance, in the multiple dependent claims found in the priority application.

Also relevant to the present discussion is that each of the various examples pertain to an approach to individualize a beverage-making portion capsule using identifiers. The description makes it reasonably clear to a skilled person that the Applicant was not restricting the description of one example to only the features shown in that example, and the examples were not presented as being mutually exclusive. To this end, the incorporation of features from one or more of the respective examples relevant to the present claims into a capsule or system described in another would not have frustrated the purpose or prevented operation. The teachings, as a whole, were drafted open-ended, and without limitation, as stated in the passage preceding the discussion of the examples: "In the following, the invention is explained using figures 1 - 18. These explanations do not restrict the general idea of inventiveness." Thus, in view of the above, a skilled person would immediately have discerned that, at time of filing, the Inventor had possession of a combination that included the single serve capsule and system shown in Fig. 16 and the various identifiers.

As was urged during the Interview, this application is entitled to a filing date of its priority applications, at least as early as September 2, 2010, and retains it continuation status from the Original PCT application No. PCT/EP/2011/003677, in which the subject matter of the present claims also is disclosed (e.g., in the examples, the claims, and the corresponding teachings identified in the September 2, 2010 priority application).

Accordingly, as acknowledged by the Examiner during the Interview, the presently claimed invention is not a continuation-in-part as initially alleged in the Office Action but is a continuation as urged by Applicant.

Further, the withdrawal of the drawing objections and the CIP priority notification is proper and amply supported in the four corners of the priority documents.

The analysis presented herein and the finding of the Examiner is amply supported by the evidence of record and is consistent with the Federal Circuit case law as illustrated in ***Hologic, Inc. v. Smith & Nephew, Inc.***, 884 F.3d 1357 (Fed. Cir. 2018); and also recent interpretation of the law by the USPTO Patent Trial and Appeal Board (PTAB), as illustrated abundantly in cases

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such as ***Ex Parte Borgerding,*** 2022 Pat. App. LEXIS 2557 (PTAB 2022)(routine opinion regarding Application No. 15/862,428); ***3Shape A/S v. Align Technology, Inc.,*** 2022 Pat. App. LEXIS 239 (PTAB 2022)(routine opinion regarding IPR2021-01120; Patent No. 10,750,151); ***Ex Parte Chipchase***, 2021 Pat. App. LEXIS 2283 (PTAB 2021)(routine opinion regarding Application Serial No. 15/131,587); and ***Innovative Intelligent Products, LLC v. National Products, Inc.***, 2021 Pat. App. LEXIS 6292 (PTAB 2021)(routine opinion regarding IPR2021-00767; Patent No. 10,630,334)[1].

Drawings

The drawings are objected to for the reasons alleged on page 4 of the Office Action. This objection is respectfully traversed.

As discussed during the Interview, the limitations in the pending claims are present in the priority applications. Among other things, Applicant's representative pointed out during the Interview that the skilled person would have taken into consideration that priority applications have sufficient disclosure of the claimed beverage system that includes the capsule and the beverage machine. Applicant also notes that various teachings in the written description and drawing breathe meaning and inherency into claim terms and certain claim features implicitly give rise to the presence of others. By way of example, the skilled person would have readily recognized that the description associated with Figs. 16a and 16b would tacitly have required other features not shown in those drawings but disclosed elsewhere in the application, such as a capsule receptacle that receives the single-serve capsule. This combination is plainly taught within the four corners of at least the September 2010 priority application. Applicant again thanks the Examiner for agreeing to withdraw the drawing objection and recognizing the Inventor was in possession of the claimed combination in the priority applications.

Claim Rejections – 35 USC 112

Claims 10-29 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for the reasons alleged on page 6 of the Office Action. These rejections are respectfully traversed.

[1] The Office Action did not set forth a level of ordinary skill in the art. However, Applicant has assumed *arguendo* (and solely for purposes of this response) that the person of ordinary skill in the art has an engineering education and some years of relevant practical experience.

Applicant does not agree that the claim terms render the claims indefinite in view of the present context; for example, the skilled person would have understood that the phrase "portion capsule" and "single-serve capsule" were used interchangeably and refer to the same beverage making capsule and the phrase "capsule receptacle" and "capsule holder" refer to the same structure. However, in the interest of expediting prosecution and without conceding the validity of the rejections, Applicant has amended the claims in a manner sufficient to overcome and render these rejections moot. Accordingly, Applicant respectfully requests the Examiner withdrawal these rejections.

Terminal Disclaimer

During the Interview, a possible Obviousness Type Double Patenting rejection was discussed in view of U.S. Patent No. 11,254,491, another patent to Applicant. Because the specific grounds for such rejection have not been set forth as yet, Applicant is without basis to challenge them. However, based upon discussions during the Interview, Applicant has studied the claims under examination in view of the potential claims that potentially could provide arguable basis for any such rejection (the "potential rejection claims"). Applicant believes that the present claims (including the dependent claims) include distinguishing features that, as a whole, would patentably distinguish over a potential rejection claims and would obviate any such rejection, as supported for example in the reasons for allowance.

However, in the interest of streamlining prosecution, narrowing the open issues, and avoiding protracted prosecution, Applicant nevertheless submits the present Terminal Disclaimer. The submission of this Terminal Disclaimer, under no circumstances, should be interpreted or otherwise regarded as an admission that the present claims cover subject matter that is obvious in view of the subject matter of the potential rejection claims. Applicant expressly reserves the right to argue the differences between the present claims and the potential rejection claims in the future, in any context in which it may arise. Moreover, by submitting the present Terminal Disclaimer, Applicant specifically disagrees that an Obviousness Type Double Patenting rejection is proper, and that this Terminal Disclaimer is necessary.

Claim Amendments

By way of the foregoing amendments and the markings to show changes Applicant has amended the claims. No new matter has been added, and the claims find ample support in the

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application as filed, as was reviewed above and consistent with the topics discussed during the Interview. Based on discussion during the interview, minor edits are made to the claims in the interest of promoting clarity and to be consistent with the teachings in the priority applications. The foregoing amendments are taken in the interest of expediting prosecution and there is no intention of surrendering any range of equivalents to which Applicant would otherwise be entitled in view of the prior art.

Further, by the present amendment, it does not follow that the amended claims have become so perfect in their description that no one could devise an equivalent. After amendment, as before, limitations in the ability to describe the present invention in language in the patent claims naturally prevent the Applicant from capturing every nuance of the invention or describing with complete precision the range of its novelty or every possible equivalent. Accordingly, the foregoing amendments are made specifically in the interest of expediting prosecution and there is no intention of surrendering any range of equivalents to which Applicant would otherwise be entitled.

Reasons For Allowance

Applicant thanks Examiner Chou for acknowledging the claims are allowable for the reasons noted on pages 6-7 of the Office Action. It is understood that the present claims were identified as allowable over the Jarisch (US 2013/0064937) and Schmed (US 7,856,920) references, even with the claims being initially accorded a December 10, 2021 filing date. With the priority notification now withdrawn, and the claims being accorded an earlier filing date, it is understood that the present claims remain allowable for at least the same reasons. Applicant respectfully notes that the present currently pending claims have additional distinguishing features not present in either of the above referenced items. Applicant believes it is entitled to at least the September 2010 priority date and therefore Jarisch is not prior art.

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CONCLUSIONS

In view of Applicant's amendments and remarks, the Examiner's rejections are believed to be rendered moot. Accordingly, Applicant submits that the present application is in condition for allowance and requests that the Examiner pass the case to issue at the earliest convenience. Should the Examiner have any questions or wish to further discuss this application, Applicant requests that the Examiner contact the undersigned at (248) 292-2920.

If for some reason Applicant has not requested a sufficient extension and/or has not paid a sufficient fee for this response and/or for the extension necessary to prevent the abandonment of this application, please consider this as a request for an extension for the required time period and/or authorization to charge our Deposit Account No. 50-1097 for any fee which may be due.

Respectfully submitted,

Date: July 01, 2022

/Paul J. Palinski/
Paul J. Palinski
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The Dobrusin Law Firm, P.C.
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Customer No. 25215

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Page 399 of 598

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EFS ID:	46089565
Application Number:	17547363
International Application Number:	
Confirmation Number:	6426
Title of Invention:	PORTION CAPSULE HAVING AN IDENTIFIER
First Named Inventor/Applicant Name:	Marc Krüger
Customer Number:	25215
Filer:	Paul J. Palinski/BECKY BALLARD
Filer Authorized By:	Paul J. Palinski
Attorney Docket Number:	1859.029USC12
Receipt Date:	01-JUL-2022
Filing Date:	10-DEC-2021
Time Stamp:	10:54:11
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		NFOA_Response_1859_029USC12.pdf	242442 57d249046792be463f967db8e7804c3a2342762c	yes	14

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Request for Reconsideration-After Non-Final Rejection	1	1
	Claims	2	8
	Applicant Arguments/Remarks Made in an Amendment	9	14
Warnings:			
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EXAMINER
CHOU, JIMMY

ART UNIT	PAPER NUMBER
3761	

DATE MAILED: 07/19/2022

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/547,363	12/10/2021	Marc Krüger	1859.029USC12	6426

TITLE OF INVENTION: PORTION CAPSULE HAVING AN IDENTIFIER

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$1200	$0.00	$0.00	$1200	10/19/2022

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

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I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

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II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

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(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/547,363	12/10/2021	Marc Krüger	1859.029USC12	6426

TITLE OF INVENTION: PORTION CAPSULE HAVING AN IDENTIFIER

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$1200	$0.00	$0.00	$1200	10/19/2022

EXAMINER	ART UNIT	CLASS-SUBCLASS
CHOU, JIMMY	3761	099-295000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/AIA/122 or PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. Fees submitted: ❑ Issue Fee ❑ Publication Fee (if required) ❑ Advance Order - # of Copies _____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

❑ Electronic Payment via EFS-Web ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29

❑ Applicant asserting small entity status. See 37 CFR 1.27

❑ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/547,363	12/10/2021	Marc Krüger	1859.029USC12	6426

25215 7590 07/19/2022

The Dobrusin Law Firm P.C.
29 W. Lawrence Street
Suite 210
Pontiac, MI 48342

EXAMINER	
CHOU, JIMMY	
ART UNIT	**PAPER NUMBER**
3761	

DATE MAILED: 07/19/2022

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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Notice of Allowability	Application No. 17/547,363	Applicant(s) Krüger, Marc	
	Examiner JIMMY CHOU	Art Unit 3761	AIA (FITF) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☑ This communication is responsive to 07/01/2022.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are 10-29 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☑ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☑ All b) ☐ Some* c) ☐ None of the:

   1. ☑ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☑ Notice of References Cited (PTO-892)
2. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.
5. ☑ Examiner's Amendment/Comment
6. ☑ Examiner's Statement of Reasons for Allowance
7. ☑ Other See Continuation Sheet.

/JIMMY CHOU/
Primary Examiner, Art Unit 3761

Continuation of Attachment(s) 7. Other: 1. bib-data sheet is attached.2. Search history is attached. 3. amendment to claims filed on 07/01/2022 is attached.

DETAILED ACTION

Notice of Pre-AIA or AIA Status

The present application is being examined under the pre-AIA first to invent provisions.

Reason for Allowance

The following is a statement of reasons for the indication of allowable subject matter: The closest prior art of record are **Jarisch et al.** (US 2013/0064937) and **Schmed et al.** (US 7,856,920). The prior art of record references neither discloses, or suggests, in combination with the other limitations of independent claims 10 and 21, the detail structures of the single serve capsule in relation to detail structures of the beverage machine comprising a groove that is laterally offset from the chamfered mandrel; and a seal that is at least partially seated in the groove and configured to bear against a top side of the cover in a region between the peripheral edge of the cover and the region of the cover that is pierced by the chamfered mandrel.

Examiner's Comment

(1) As discussed in the interview, the priority is removed and drawing objections is support by original specification so that drawing objections have been withdrawn.

(2) with respect to 112 rejections, the amendment to claims overcome prior rejections. Thus, 35 USC 112 rejections have been withdrawn.

(3) The terminal disclaimer filed on 07/01/2022 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of

US Patent No. 11254491 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JIMMY CHOU whose telephone number is (571)270-7107. The examiner can normally be reached Mon-Friday.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Helena Kosanovic can be reached on (571) 272-9059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: https://patentcenter.uspto.gov. Visit https://www.uspto.gov/patents/apply/patent-center for more information about Patent Center and https://www.uspto.gov/patents/docx for information about filing in DOCX format. For

additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JIMMY CHOU/
Primary Examiner, Art Unit 3761

Notice of References Cited	Application/Control No. 17/547,363	Applicant(s)/Patent Under Reexamination Krüger, Marc	
	Examiner JIMMY CHOU	Art Unit 3761	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-10588451-B2	03-2020	De Vreede; Jasper	A47J31/44	1/1
*	B	US-10076208-B2	09-2018	Castellani; Andrea	A47J31/4492	1/1
*	C	US-8459179-B2	06-2013	Ozanne; Matthieu	B65D85/8058	426/77
*	D	US-20020048621-A1	04-2002	Boyd, David D.	B65D85/8046	426/77
*	E	US-11142379-B2	10-2021	Alderson; Paul	B65D77/2024	1/1
*	F	US-20050264965-A1	12-2005	Okamoto, Minoru	H01L23/60	361/56
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/547,363	Krüger, Marc
	Examiner	**Art Unit**
	JIMMY CHOU	3761

CPC						
Symbol					**Type**	**Version**
B65D	/	85	/	8061	F	2020-05-01
A47J	/	31	/	4492	I	2013-01-01
B65D	/	85	/	8058	I	2020-05-01
B65D	/	85	/	8043	I	2013-01-01
A47J	/	31	/	407	I	2013-01-01
A47J	/	31	/	3628	I	2013-01-01
A47J	/	31	/	3638	I	2013-01-01
B65D	/	65	/	466	A	2013-01-01
B65D	/	2203	/	06	A	2013-01-01
B65D	/	2203	/	10	A	2013-01-01

CPC Combination Sets							
Symbol					**Type**	**Set**	**Ranking**	**Version**
	/		/					

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	20	
/JIMMY CHOU/ Primary Examiner, Art Unit 3761	11 July 2022	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

U.S. Patent and Trademark Office

Part of Paper No.: 20220711

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Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/547,363	Krüger, Marc
	Examiner	**Art Unit**
	JIMMY CHOU	3761

INTERNATIONAL CLASSIFICATION				
CLAIMED				
B65D	/	85	/	804

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**
99	295

CROSS REFERENCES(S)						
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**					
99	286					

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	20	
/JIMMY CHOU/ Primary Examiner, Art Unit 3761	11 July 2022	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/547,363	Krüger, Marc
	Examiner	**Art Unit**
	JIMMY CHOU	3761

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIMS

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
-	1	1	10	10	19	19	28								
-	2	2	11	11	20	20	29								
-	3	3	12	12	21										
-	4	4	13	13	22										
-	5	5	14	14	23										
-	6	6	15	15	24										
-	7	7	16	16	25										
-	8	8	17	17	26										
-	9	9	18	18	27										

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	20	
/JIMMY CHOU/ Primary Examiner, Art Unit 3761	11 July 2022	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/547,363	Krüger, Marc
	Examiner	Art Unit
	JIMMY CHOU	3761

CPC - Searched*		
Symbol	Date	Examiner
B65D85/8043, A47J31/3628, A47J31/4492, B65D65/466, B65D2203/06, B65D2203/10	03/24/2022	CHOU

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
99	286,289R,295,302R,307,323	03/24/2022	CHOU

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
inventor name search	03/24/2022	CHOU
updated search	07/11/2022	CHOU

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
	see attached for interference search	07/11/2022	CHOU

/JIMMY CHOU/ Primary Examiner, Art Unit 3761	

PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
L1	2272	99/286,289R,295,302R, 307,323.ccls.	(USPAT)	ADJ	ON	ON	2013/04/30 02:51 PM
L2	206	99/286,289R,295,302R, 307,323.ccls. and (capsule)	(USPAT)	ADJ	ON	ON	2013/04/30 02:52 PM
L3	466	99/286,289R,295,302R, 307,323.ccls. and (capsule)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2013/04/30 02:52 PM
L4	787	99/286,289R,295,302R, 307,323.ccls. and (capsule or cartridge)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2013/04/30 04:11 PM
L5	321	L4 not L3	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2013/04/30 04:11 PM
L6	519	426/77,78,79,112,433,115.ccls. and (capsule or cartridge)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2013/04/30 05:45 PM
L7	287	L6 not L4	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2013/04/30 05:45 PM
L8	446	426/77,78,79,112,433,115.ccls. and (capsule or cartridge) and (beverage or coffee)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2013/04/30 05:45 PM
L9	446	426/77,78,79,112,433,115.ccls. and ((capsule or cartridge) and (beverage or coffee))	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2013/04/30 05:45 PM
L10	17	"7604826"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2013/04/30 07:20 PM
L11	2	"20110030563"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2013/04/30 08:26 PM
L12	16	"219".clas. and swagging	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2013/05/01 11:05 AM
L13	17	"5515705"	(USPAT)	ADJ	ON	ON	2013/05/01 11:12 AM
L14	7	72/370.13.ccls. and (valve)	(USPAT)	ADJ	ON	ON	2013/05/01 11:13 AM

L15	9	"7604826"	(USPAT)	ADJ	ON	ON	2013/05/01 01:17 PM
L16	9	"7604826"	(USPAT)	ADJ	ON	ON	2013/05/01 03:33 PM
L17	0	"20110030563"	(USPAT)	ADJ	ON	ON	2013/05/01 03:33 PM
L18	1	"20110030563"	(US-PGPUB; USPAT)	ADJ	ON	ON	2013/05/01 03:33 PM
L19	1	"20080105131"	(US-PGPUB; USPAT)	ADJ	ON	ON	2013/05/01 03:34 PM
L20	59	((KON) near2 (WONG)).INV.	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2013/05/01 03:41 PM
L21	24	((GUIDO) near2 (BRANDT)).INV.	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2013/05/01 03:46 PM
L22	42	((HENDRIK) near2 (KOELING)).INV.	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2013/05/01 03:47 PM
L23	30	((RALF) near2 (KAMERBEEK)).INV.	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2013/05/01 03:47 PM
L24	17	((AREND) near2 (BIESHEUVEL)).INV.	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2013/05/01 03:47 PM
L25	1	"20080069550"	(USPAT)	ADJ	ON	ON	2014/01/17 01:54 PM
L26	5	"20080069550"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/17 01:54 PM
L27	1	"13323430"	(USPAT)	ADJ	ON	ON	2014/01/27 01:10 PM
L28	2	WO "02081337"	(USPAT)	ADJ	ON	ON	2014/01/27 01:14 PM
L29	21	WO "02081337"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 01:14 PM
L30	3	CN "101309840"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 01:35 PM
L31	3	CN "101410041"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 01:49 PM
L32	3	CN "101421172"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 01:50 PM
L33	4	CN "1125681"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 01:55 PM
L34	27	GB "1256247"	(US-PGPUB; USPAT; USOCR; FPRS; EPO;	ADJ	ON	ON	2014/01/27 01:56 PM

			JPO; DERWENT; IBM_TDB)				
L35	2	JP "01310612"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 01:57 PM
L36	2	JP "02231043"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 01:57 PM
L37	2	CN "1612831"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 01:58 PM
L38	3	JP "2000336570"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 01:58 PM
L39	5	Wo "2004064582"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 02:05 PM
L40	3	JP "2000336570"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 02:11 PM
L41	8	WO "2008078990"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 02:12 PM
L42	11	WO "2008117329"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 02:14 PM
L43	11	WO "2008117329"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 02:19 PM
L44	8	Wo "2008078990"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 02:19 PM
L45	1	JP "62188626"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 02:19 PM
L46	5	JP "63047890"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/01/27 02:19 PM
L47	0	WO "2008132571"	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2014/02/04 12:04 PM
L48	33	WO "2008132571"	(US-PGPUB; USPAT;	ADJ	ON	ON	2014/02/04

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)				12:04 PM
L49	2	"20120258211"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/02/04 12:28 PM
L50	2	"20120258221"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/02/04 12:28 PM
L51	116	"5794519"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/02/04 01:13 PM
L52	107	"2968560"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/02/04 01:13 PM
L53	871	"99".clas. and (pressure with (capsule or cartridge))	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/02/04 01:16 PM
L54	254	"99".clas. and (pressure with (capsule or cartridge)) same bar$1	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/02/04 01:16 PM
L55	17	"8220382"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/02/04 07:38 PM
L56	3	"8220382"	(USPAT)	ADJ	ON	ON	2014/02/10 03:31 PM
L57	1	"0376844"	(USPAT)	ADJ	ON	ON	2014/02/10 04:27 PM
L58	3	"13326291"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/02/10 04:47 PM
L59	2373	99/286,289R,295,302R, 307,323.ccls. \	(USPAT)	ADJ	ON	ON	2014/02/10 08:32 PM
L60	409	99/286,289R,295,302R, 307,323.ccls. and (cartridge or capsule)	(USPAT)	ADJ	ON	ON	2014/02/10 08:32 PM
L61	911	99/286,289R,295,302R, 307,323.ccls. and (cartridge or capsule)	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2014/02/10 08:32 PM
L62	3	"8220382"	(USPAT)	ADJ	ON	ON	2014/02/10 08:34 PM
L63	1	"7807939"	(USPAT)	ADJ	ON	ON	2014/11/19 09:43 PM
L64	2	"20100317172"	(US-PGPUB; USPAT)	ADJ	ON	ON	2014/11/19 09:44 PM

L65	8	"6164956"	(USPAT)	ADJ	ON	ON	2014/11/20 12:30 PM
L66	1	JP "2001012703"	(USPAT; JPO)	ADJ	ON	ON	2014/11/20 12:40 PM
L67	30	WO "2006030461"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/11/20 01:21 PM
L68	20	"8220382"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/11/20 02:01 PM
L69	877	99/286,289R,295,302R, 307,323.ccls. and (capsule) and (coffee)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/11/20 08:21 PM
L70	14	WO "2008125256"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/11/20 09:25 PM
L71	30	WO "2006030461"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/11/20 10:47 PM
L72	30	WO "2006030461"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/11/20 10:54 PM
L73	25	"7552672"	(USPAT)	ADJ	ON	ON	2014/11/21 01:58 AM
L74	0	EP "2298671"	(USPAT; EPO)	ADJ	ON	ON	2014/11/21 02:35 AM
L75	4	EP "2298671"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/11/21 02:36 AM
L76	300	99/286,289R,295,302R, 307,323.ccls. and (capsule)	(USPAT)	ADJ	ON	ON	2014/11/21 03:03 AM
L77	982	426/77,78,79,112,433,115.ccls. and (capsule or cartridge)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/11/21 03:03 AM
L78	4	EP "2298671"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/11/21 03:31 AM
L79	2	"20120263833"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/11/21 02:28 PM
L80	65	((Kon) near2 (Wong)).INV.	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2014/11/21 02:45 PM

L81	28	((Guido) near2 (Brandt)).INV.	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2014/11/21 02:47 PM
L82	41	((Ralf) near2 (Kamerbeek)).INV.	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2014/11/21 03:39 PM
L83	24	((Arend) near2 (Biesheuvel)).INV.	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2014/11/21 03:39 PM
L84	3	"13326291"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2014/11/21 04:12 PM
L85	59	"5402707"	(USPAT)	ADJ	ON	ON	2015/03/08 08:02 PM
L86	26	"7552672"	(USPAT)	ADJ	ON	ON	2015/03/09 02:08 PM
L87	3	EP "1775234"	(USPAT; EPO)	ADJ	ON	ON	2015/03/09 02:18 PM
L89	1549	99/286,289R,295,302R, 307,323.ccls. and (capsule or cartridge or (K adj cup))	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2015/03/09 02:34 PM
L90	22	99/286,289R,295,302R, 307,323.ccls. and (K adj cup)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2015/03/09 02:35 PM
L91	35	426/77,78,79,112,433,115.ccls. and (K adj3 cup)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2015/03/09 02:35 PM
L92	0	A47J 31/42.cpc. and (K adj3 cup)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2015/03/09 02:37 PM
L93	0	A47J 31/42.cpc. and (capsule or cartridge)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2015/03/09 02:37 PM
L94	0	A47J 31/42.cpc. and (coffee)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2015/03/09 02:37 PM
L95	0	A47J 31/42.cpc.	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2015/03/09 02:37 PM
L96	135	A47J31/42.cpc. and ((k adj3 cup) or cartridge or capsule)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2015/03/09 02:37 PM
L97	0	EP1775234	(USPAT)	ADJ	ON	ON	2015/03/09 02:40 PM
L98	0	EP1775234	(USPAT; EPO)	ADJ	ON	ON	2015/03/09 02:40 PM

L99	3	EP "1775234"	(USPAT; EPO)	ADJ	ON	ON	2015/03/09 02:40 PM
L100	3379	B65D85/8043.cpc. and (capsule)	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2015/11/13 02:45 PM
L101	923	B65D85/8043.cpc. and (capsule or cartridge) and (pierc$3 or inject$3)	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2015/11/13 02:46 PM
L102	4	"8220382"	(USPAT)	ADJ	ON	ON	2016/03/02 03:37 PM
L103	121	"4136202"	(USPAT)	ADJ	ON	ON	2016/03/02 03:38 PM
L104	4	"8220382"	(USPAT)	ADJ	ON	ON	2016/03/02 03:49 PM
L105	1	"20100064899"	(USPAT)	ADJ	ON	ON	2016/03/02 03:49 PM
L106	2	"20100064899"	(US-PGPUB; USPAT)	ADJ	ON	ON	2016/03/02 03:49 PM
L107	2	"13326291"	(US-PGPUB; USPAT)	ADJ	ON	ON	2016/03/02 03:50 PM
L108	4	"8220382"	(USPAT)	ADJ	ON	ON	2016/03/03 04:34 PM
L109	121	"4136202"	(USPAT)	ADJ	ON	ON	2016/03/03 04:34 PM
L110	1	"20100064899"	(USPAT)	ADJ	ON	ON	2016/03/03 04:34 PM
L111	2	"20100064899"	(US-PGPUB; USPAT)	ADJ	ON	ON	2016/03/03 04:34 PM
L112	1	"20080245236"	(US-PGPUB; USPAT)	ADJ	ON	ON	2016/03/03 04:38 PM
L113	2	"20100101428"	(US-PGPUB; USPAT)	ADJ	ON	ON	2016/03/03 04:39 PM
L114	2	"20100037779"	(US-PGPUB; USPAT)	ADJ	ON	ON	2016/03/03 04:42 PM
L115	2	"20090126577"	(US-PGPUB; USPAT)	ADJ	ON	ON	2016/03/03 04:43 PM
L116	1	"20100064899"	(USPAT)	ADJ	ON	ON	2016/03/04 10:04 AM
L117	2	"20100064899"	(US-PGPUB; USPAT)	ADJ	ON	ON	2016/03/04 10:04 AM
L118	152	"5472719"	(USPAT)	ADJ	ON	ON	2016/05/12 11:00 AM
L119	2	EP "0507905"	(USPAT)	ADJ	ON	ON	2016/05/12 11:04 AM
L120	2	EP "0507905"	(USPAT; EPO)	ADJ	ON	ON	2016/05/12 11:04 AM
L121	18	EP "0507905"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2016/05/12 11:04 AM

L122	1960	99/286,289R,295,302R, 307,323.ccls. and (capsule or cartridge or tray)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2016/05/12 08:31 PM
L123	800	99/286,289R,295,302R, 307,323.ccls. and (capsule or cartridge or tray) and (pierc$3)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2016/05/12 08:31 PM
L124	0	A47J 31/42.cpc. and (capsule or cartridge) and (capsule or cartridge or tray) and (pierc$3)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2016/05/12 08:32 PM
L125	0	A47J 31/42.cpc. and (capsule or cartridge) and (pierc$3)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2016/05/12 08:32 PM
L126	0	A47J 31/42.cpc. and (capsule or cartridge)	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2016/05/12 08:32 PM
L127	15	JP "2000355375"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2017/01/05 02:31 PM
L128	1	JP "06015879"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2017/01/05 02:34 PM
L129	1	JP adj "06015879"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2017/01/05 02:38 PM
L130	0	JP adj5 "015879"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2017/01/05 02:38 PM
L131	1	JP near "015879"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2017/01/05 02:38 PM
L132	6230	B65D85/8043.cpc. and (capsule or cartridge)	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2017/01/05 03:15 PM
L133	14	B65D85/8043.cpc. and (capsule or cartridge) and ((pre adj3 cut$4) or (pre adj3 open$2))	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2017/01/05 03:16 PM
L134	537	B65D85/8043.cpc. and (capsule or cartridge) and (perforat$3)	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2017/01/05 03:21 PM
L135	790	426/115,425.ccls. and (capsule or cartridge)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2018/01/05 02:24 PM
L136	1151	426/79,82,112,115,425,	(US-PGPUB; USPAT;	ADJ	ON	ON	2018/01/05

		435.ccls. and (capsule or cartridge)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)				02:27 PM
L137	1	"14994648"	(US-PGPUB; USPAT)	ADJ	ON	ON	2018/01/07 03:49 PM
L138	16	WO "2006126230"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2018/01/08 11:04 AM
L139	7	"7631594"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2018/01/08 12:57 PM
L140	1	"14342722"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2018/01/08 01:40 PM
L143	33	99/286,289R,295,302R, 307,323.ccls. and ((capsule) and (piercing)).clm.	(USPAT)	ADJ	ON	ON	2018/10/19 10:49 AM
L144	2	"13326291"	(US-PGPUB; USPAT)	AND	ON	ON	2018/10/19 11:13 AM
L147	0	"15774789"	(USPAT)	OR	OFF	OFF	2019/02/15 02:38 PM
L148	1	"15774789"	(US-PGPUB; USPAT)	AND	OFF	OFF	2019/02/15 02:38 PM
L149	8	99/286,289R,295,302R, 307,323.ccls. and (capsule or cartridge or tray) and ((damping or valve) near (control$4 adj5 flow adj5 rate))	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2019/02/15 03:13 PM
L150	3	99/286,289R,295,302R, 307,323.ccls. and (capsule or cartridge or tray) near (control$4 adj5 flow adj5 rate)	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2019/02/15 03:16 PM
L151	3	99/286,289R,295,302R, 307,323.ccls. and (capsule or cartridge) near (control$4 adj5 flow adj5 rate)	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2019/02/15 03:16 PM
L152	37	99/286,289R,295,302R, 307,323.ccls. and (capsule or cartridge) same(control$4 adj5 flow adj5 rate)	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2019/02/15 03:22 PM
L153	37	99/286,289R,295,302R, 307,323.ccls. and (capsule or cartridge) same (control$4 adj5 flow adj5 rate)	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2019/02/15 03:22 PM

L154	10	99/286,289R,295,302R, 307,323.ccls. and (capsule or cartridge) and ((hermetically or airtight) near (lid or cover))	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2019/02/15 05:08 PM
L155	7	"2017073153"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2019/02/15 09:19 PM
L156	0	"2017073153"	(US-PGPUB; USPAT)	ADJ	ON	ON	2019/02/15 09:19 PM
L157	0	"2017073153"	(US-PGPUB; USPAT)	ADJ	ON	ON	2019/02/15 09:20 PM
L158	0	JP "2017512535"	(US-PGPUB; USPAT)	ADJ	ON	ON	2019/02/15 09:20 PM
L159	3	JP "2017512535"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2019/02/15 09:20 PM
L160	15	WO "2015136433"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2019/02/15 09:22 PM
L161	2	"20070144355"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2019/02/15 09:26 PM
L162	3	"15774789"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2019/02/16 05:42 PM
L163	1	"20070144355"	(US-PGPUB; USPAT)	AND	ON	ON	2019/02/16 06:20 PM
L164	56	99/286,289R,295,302R, 307,323.ccls. and ((capsule or cartridge) near (deform or deformable))	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2019/02/16 07:24 PM
L165	15	WO "2015136433"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2019/02/16 08:06 PM
L166	1004	A47J31/0668.cpc. and (capsule or cartridge)	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2019/02/16 08:19 PM
L167	1083	A47J31/3623.cpc. and (capsule or cartridge)	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2019/02/16 08:19 PM
L168	9008	B65D85/8043.cpc. and (capsule or cartridge)	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2019/02/16 08:19 PM
L169	240	426/77,78,79,112,433,115.ccls. and (capsule or cartridge) and (injecting)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2019/02/16 08:43 PM

L170	8	"8161866"	(USPAT)	AND	OFF	OFF	2021/02/10 02:47 PM
L171	19	"8202560"	(USPAT)	AND	OFF	OFF	2021/02/10 02:47 PM
L172	0	"15531329"	(USPAT)	AND	OFF	OFF	2021/02/10 02:48 PM
L173	2	"15531329"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/02/10 02:48 PM
L174	1	"20200051831"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/02/10 03:01 PM
L175	40	((("WONG") near3 ("Kon") near3 ("Euan") near3 ("Gerard"))).INV.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/05/13 02:19 PM
L176	14	EP "1775234"	(USPAT)	ADJ	ON	ON	2021/05/13 05:06 PM
L177	42	EP "1775234"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2021/05/13 05:06 PM
L178	29	"8220382"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2021/05/13 05:15 PM
L179	116	("20030172813" | "20040045443" | "20040188459" | "20050051478" | "20050205601" | "20050287251" | "20060019000" | "20060110507" | "20060174773" | "20060292012" | "20070068395" | "20070084352" | "20070186784" | "20070224319" | "20080095904" | "20080105131" | "20080115674" | "20080134902" | "20080216666" | "20080245236" | "20080317931" | "20090007794" | "20090007796" | "20090017177" | "20090126577" | "20090158938" | "20090205503" | "20090255410" | "20090280219" | "20100024658" | "20100037779" | "20100043644" |	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/05/13 05:22 PM

		"20100043645" | "20100043646" | "20100064899" | "20100077928" | "20100101428" | "20100129512" | "20100154647" | "20100154651" | "20100186599" | "20100203208" | "20100288131" | "20100303964" | "20110030563" | "3615708" | "4321139" | "4417504" | "4846052" | "4859337" | "5325765" | "5327815" | "5398595" | "5402707" | "5649472" | "5762987" | "5826492" | "5840189" | "5897899" | "6079315" | "6082247" | "6142063" | "6182554" | "6440256" | "6589577" | "6606938" | "6607762" | "6644173" | "6645537" | "6655260" | "6658989" | "6666130" | "6672200" | "6708600" | "7165488" | "7279188" | "7347138" | "7360418" | "7377162" | "7398726" | "7490542" | "7513192" | "7523695" | "7543527" | "7552672" | "7604826" | "7624673" | "7640845" | "7703381" | "7815953" | "7836819" | "7854192" | "7856920" | "7856921" | "7930972" | "7946217" | "7993691" | "8147887" | "8161866" | "8161868" | "8202560" | "8220382" | "8304006" | "D408679" | "D452433" | "D452434" | "D462865" | "D474110" | "D474111" | "D489215").PN. OR ("D502362" | "D513572" | "D544299" | "D554299").PN. OR ("8846120").URPN.					
L180	4062133	WO "2008132571"	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/05/13 05:50 PM
L181	17497581	WO "2008132571"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	OFF	OFF	2021/05/13 05:50 PM

L182	104	WO "2008132571"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	OFF	OFF	2021/05/13 05:50 PM
L183	104	WO "2008132571"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2021/05/14 01:34 AM
L184	236	"6079315"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2021/05/14 01:44 AM
L185	14	"8220382"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/05/14 04:27 PM
L186	2	"20080216666"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/05/14 04:32 PM
L187	203	"6079315"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/05/14 04:55 PM
L188	14	WO "2008132571"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/05/14 04:56 PM
L189	104	WO "2008132571"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	OFF	OFF	2021/05/14 04:56 PM
L190	169	(US-0007794-$ | US-0007796-$ | US-0017177-$ | US-0019000-$ | US-0024658-$ | US-0030563-$ | US-0037779-$ | US-0043644-$ | US-0043645-$ | US-0043646-$ | US-0045443-$ | US-0051478-$ | US-0064899-$ | US-0068395-$ | US-0077928-$ | US-0084352-$ | US-0095904-$ | US-0101428-$ | US-0105131-$ | US-0110507-$ | US-0115317-$ | US-0115674-$ | US-0125256-$ | US-0126577-$ | US-0129512-$ | US-0134902-$ | US-0154647-$ | US-0154651-$ | US-0158938-$ | US-0172813-$ | US-0174773-$ | US-	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/05/14 09:10 PM

		0186599-$ | US- 0186784-$ | US- 0188459-$ | US- 0203208-$ | US- 0205503-$ | US- 0205601-$ | US- 0216666-$ | US- 0224319-$ | US- 0245236-$ | US- 0255410-$ | US- 0258210-$ | US- 0280219-$ | US- 0287251-$ | US- 0288131-$ | US- 0292012-$ | US- 0303964-$ | US- 0317931-$ | US- 1125681-$ | US- 1612831-$ | US- 2968560-$ | US- 20030172813-$ | US- 20040045443-$ | US- 20040115317-$ | US- 20040188459-$ | US- 20050051478-$ | US- 20050205601-$ | US- 20050287251-$ | US- 20060019000-$ | US- 20060110507-$ | US- 20060174773-$ | US- 20060292012-$ | US- 20070068395-$ | US- 20070084352-$ | US- 20070186784-$ | US- 20070224319-$ | US- 20080095904-$ | US- 20080105131-$ | US- 20080115674-$ | US- 20080125256-$ | US- 20080134902-$ | US- 20080216666-$ | US- 20080245236-$ | US- 20080317931-$ | US- 20090007794-$ | US- 20090007796-$ | US- 20090017177-$ | US- 20090126577-$ | US- 20090158938-$ | US- 20090205503-$ | US- 20090255410-$ | US- 20090280219-$ | US- 20100024658-$ | US- 20100037779-$ | US- 20100043644-$ | US- 20100043645-$ | US- 20100043646-$ | US- 20100064899-$ | US- 20100077928-$ | US-					

		20100101428-$ | US- 20100129512-$ | US- 20100154647-$ | US- 20100154651-$ | US- 20100186599-$ | US- 20100203208-$ | US- 20100288131-$ | US- 20100303964-$ | US- 20110030563-$ | US- 20120258210-$ | US- 3615708-$ | US- 4136202-$ | US- 4321139-$ | US- 4417504-$ | US- 4846052-$ | US- 4859337-$ | US- 5325765-$ | US- 5327815-$ | US- 5398595-$ | US- 5402707-$ | US- 5649472-$ | US- 5762987-$ | US- 5826492-$ | US- 5840189-$ | US- 5897899-$ | US- 6079315-$ | US- 6082247-$ | US- 6142063-$ | US- 6182554-$ | US- 6440256-$ | US- 6589577-$ | US- 6606938-$ | US- 6607762-$ | US- 6644173-$ | US- 6645537-$ | US- 6655260-$ | US- 6658989-$ | US- 6666130-$ | US- 6672200-$ | US- 6708600-$ | US- 7165488-$ | US- 7279188-$ | US- 7347138-$ | US- 7360418-$ | US- 7377162-$ | US- 7398726-$ | US- 7490542-$ | US- 7513192-$ | US- 7523695-$ | US- 7543527-$ | US- 7552672-$ | US- 7604826-$ | US- 7624673-$ | US- 7640845-$ | US- 7703381-$ | US- 7836819-$ | US- 7854192-$ | US- 7856920-$ | US-					

		7856921-$ | US-7930972-$ | US-7946217-$ | US-7993691-$ | US-8147887-$ | US-8161866-$ | US-8161868-$ | US-8202560-$ | US-8220382-$ | US-8304006-$ | US-8322271-$ | US-D408679-$ | US-D452433-$ | US-D452434-$ | US-D462865-$ | US-D474110-$ | US-D474111-$ | US-D489215-$ | US-D502362-$ | US-D513572-$ | US-D544299-$ | US-D554299-$).DID.					
L191	81	(BI-0507905-$ | AI-02081337-$ | AI-20030172813-$ | AI-20040045443-$ | AI-20040115317-$ | AI-20040188459-$ | AI-20050051478-$ | AI-20050205601-$ | AI-20050287251-$ | AI-20060019000-$ | AI-20060110507-$ | AI-20060174773-$ | AI-20060292012-$ | AI-2006045537-$ | AI-20070068395-$ | AI-20070084352-$ | AI-20070186784-$ | AI-20070224319-$ | AI-2007114685-$ | AI-20080095904-$ | AI-20080105131-$ | AI-20080115674-$ | AI-20080134902-$ | AI-20080216666-$ | AI-20080245236-$ | AI-20080317931-$ | AI-2008117329-$ | AI-2008125256-$ | AI-2008132571-$ | AI-20090007794-$ | AI-20090007796-$ | AI-20090017177-$ | AI-20090126577-$ | AI-20090158938-$ | AI-20090205503-$ | AI-20090255410-$ | AI-	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	OFF	OFF	2021/05/14 09:22 PM

		20090280219-$ | AI-20100024658-$ | AI-20100037779-$ | AI-20100043644-$ | AI-20100043645-$ | AI-20100043646-$ | AI-20100064899-$ | AI-20100077928-$ | AI-20100101428-$ | AI-20100129512-$ | AI-20100154647-$ | AI-20100154651-$ | AI-20100186599-$ | AI-20100203208-$ | AI-20100288131-$ | AI-20100303964-$ | AI-20110030563-$ | BI-6440256-$ | CN-101048095-$ | CN-101309840-$ | CN-101410041-$ | CN-101421172-$ | CN-1125681-$ | CN-1612831-$ | EP-0507905-$ | EP-1775234-$ | EP-2298671-$ | EP-2367736-$ | GB-1256247-$ | JP-01310612-$ | JP-02231043-$ | JP-06015879-$ | JP-2000336570-$ | JP-2000355375-$ | JP-2004534697-$ | JP-2005211659-$ | JP-62188626-$ | JP-63047890-$ | NL-2009050816-$ | WO-02081337-$ | WO-03059778-$ | WO-2004064582-$ | WO-2006030461-$ | WO-2006045537-$ | WO-2007114685-$ | WO-2008078990-$ | WO-2008117329-$ | WO-2008125256-$ | WO-2008132571-$ | WO-2009006379-$).DID.					
L192	10	RU "2312803"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	OFF	OFF	2021/05/14 09:37 PM
L193	0	99/286,289R,295,302R,307,323.ccls. and (capsule) and (piercing	(US-PGPUB; USPAT)	AND	ON	ON	2021/05/14 10:39 PM

		and pentrat$3)					
L194	1205	99/286,289R,295,302R, 307,323.ccls. and (capsule or cartridge) and (coffee)	(US-PGPUB; USPAT)	AND	ON	ON	2021/05/14 10:40 PM
L195	766	L194 and (piercing or pierce or penetrat$3)	(US-PGPUB; USPAT)	AND	ON	ON	2021/05/14 10:41 PM
L196	2465	A47J31/3695.cpc. and ((capsule or cartridge) and (beverage or coffee))	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2021/05/14 10:46 PM
L197	1292	A47J31/3676.cpc. and ((capsule or cartridge) and (beverage or coffee))	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2021/05/14 10:46 PM
L198	915	A47J31/368.cpc. and ((capsule or cartridge) and (beverage or coffee))	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2021/05/14 10:46 PM
L199	466	A47J31/3685.cpc. and ((capsule or cartridge) and (beverage or coffee))	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2021/05/14 10:46 PM
L200	1788	B65D65/466.cpc. and ((capsule or cartridge) and (beverage or coffee))	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2021/05/14 10:46 PM
L201	119	B65D77/32.cpc. and ((capsule or cartridge) and (beverage or coffee))	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2021/05/14 10:46 PM
L202	134	B65D77/38.cpc. and ((capsule or cartridge) and (beverage or coffee))	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2021/05/14 10:46 PM
L203	11997	B65D85/8043.cpc. and ((capsule or cartridge) and (beverage or coffee))	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2021/05/14 10:46 PM
L204	1471	B65D85/8046.cpc. and ((capsule or cartridge) and (beverage or coffee))	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2021/05/14 10:46 PM
L205	2516	L203 and (pierc$3 or penetrat$3)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2021/05/14 10:49 PM
L206	9	"14904186"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2021/05/14 11:29 PM
L207	2	"20060236871"	(US-PGPUB; USPAT; USOCR; FPRS; EPO;	AND	OFF	OFF	2021/05/15 12:40 AM

			JPO; DERWENT; IBM_TDB)				
L208	1	"16355174"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/05/15 01:06 AM
L209	0	WO "2008125526"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/05/15 01:44 AM
L210	0	WO "2008125526"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	OFF	OFF	2021/05/15 01:44 AM
L211	50	WO "2008125256"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2021/05/15 01:45 AM
L212	91	WO "2008132571"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2021/05/15 01:46 AM
L213	77	WO "2008132571"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2021/05/15 01:47 AM
L214	2	("2017/0275090").URPN.	(USPAT)	OR	OFF	OFF	2021/08/21 01:17 AM
L215	1701	"99".clas. and (pouch or pack or bag or sachet)	(USPAT)	OR	OFF	OFF	2021/08/21 01:32 AM
L216	501	L215 and (inlet and outlet)	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/08/21 01:33 AM
L217	274	L216 and (film or flexible)	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/08/21 01:36 AM
L218	515	"426".clas. and (pouch or pack or bag or sachet) and (insert)	(USPAT)	OR	OFF	OFF	2021/08/21 01:42 AM
L219	55	(US-20090280219-$ or US-20090017177-$ or US-20070224319-$ or US-20060110507-$ or US-20010052294-$ or US-20120180670-$).did. or (US-8202560-$ or US-7798055-$ or US-5327815-$ or US-5398595-$ or US-5402707-$ or US-5656316-$ or US-7946217-$ or US-7856921-$ or US-7318372-$ or US-7279188-$ or US-6026732-$ or US-5897899-$ or US-5398596-$ or US-5325765-$ or US-5197374-$ or US-4136202-$ or US-	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2021/10/06 03:49 PM

		5242702-$ or US-6832542-$ or US-9179797-$).did. or (FR-2617389-$ or WO-2005090196-$).did. or (WO-9311841-$ or WO-2005090196-$).did.					
L220	27	"8720320"	(USPAT)	OR	OFF	OFF	2021/10/06 07:39 PM
L221	5	"9795243"	(USPAT)	OR	OFF	OFF	2021/10/06 07:46 PM
L222	2	"10865039"	(USPAT)	OR	OFF	OFF	2021/10/06 07:52 PM
L223	1	"20030222089"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 12:26 AM
L224	1	"20060137532"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 12:27 AM
L225	1	"16342221"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 10:04 AM
L226	97	"99".clas. and (coffee near (stand or support))	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 10:09 AM
L227	1	"20040231522"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 10:50 AM
L228	14	"5055311"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 10:51 AM
L229	28	"4811657"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 10:52 AM
L230	35	"4759274"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 10:52 AM
L231	58	A47J36/24.cpc. and (stand)	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 10:55 AM
L232	1	"20050079339"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 10:58 AM
L233	15	("0076639" | "0931497" | "D365724").PN. OR ("5788196").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 11:01 AM
L234	3	("D488950").URPN.	(USPAT)	OR	OFF	OFF	2021/10/07 11:02 AM
L235	44	("20090095169" | "20110303104" | "4873921" | "4996410" | "6526875" | "D035501" | "D038924" | "D041716" | "D045601" | "D088156" | "D150157" | "D169166" | "D181298" | "D225169" | "D229733" | "D278403" | "D318975" | "D318976" | "D365724" | "D369507" | "D423278" | "D433272" | "D434268"	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 11:02 AM

		| "D434594" | "D437181" | "D488343" | "D488950" | "D503068" | "D625548" | "D645297" | "D645298" | "D781647" | "D845060").PN. OR ("D891851").URPN.					
L236	62	("1701989" | "20030192525" | "20050076795" | "20050150395" | "20050167381" | "20060090744" | "2731539" | "3361126" | "3377942" | "4122764" | "4176593" | "4759276" | "4838446" | "4873921" | "4899722" | "4908487" | "4920873" | "5119800" | "5203257" | "5211157" | "5241900" | "5381729" | "5453596" | "5467697" | "5819640" | "5977521" | "5979428" | "6157007" | "6234068" | "6468072" | "6593551" | "6872920" | "6941943" | "7090094" | "7708006" | "D146832" | "D168905" | "D181298" | "D192900" | "D213717" | "D401805" | "D434268" | "D468580" | "D488669" | "D548001" | "D626377").PN. OR ("D645297").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 11:07 AM
L237	40	("3960134" | "4722322" | "4726350" | "4759339" | "4776318" | "5284126" | "5329917" | "5456162" | "5542347" | "5682872" | "5842463").PN. OR ("5979428").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 11:09 AM
L238	63	("1701989" | "20030192525" | "20050076795" | "20050150395" | "20050167381" | "20060090744" | "2731539" | "3361126" | "3377942" | "4122764" | "4176593" | "4759276" | "4838446" | "4873921" | "4899722" | "4908487" | "4920873" | "5119800" | "5203257" | "5211157" |	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 11:10 AM

		"5241900" | "5381729" | "5453596" | "5467697" | "5819640" | "5977521" | "5979428" | "6157007" | "6234068" | "6468072" | "6593551" | "6872920" | "6941943" | "7090094" | "7708006" | "D146832" | "D168905" | "D181298" | "D192900" | "D213717" | "D401805" | "D434268" | "D468580" | "D488669" | "D548001" | "D626377").PN. OR ("D645298").URPN.					
L239	14	("1582541" | "1761137").PN. OR ("4838446").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 11:14 AM
L240	12	"5788196"	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 11:16 AM
L241	35	"4759274"	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 11:16 AM
L242	2	"20090095169"	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 11:17 AM
L243	37	"5467697"	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 11:18 AM
L244	40	("1547200" | "3361126" | "3364844" | "4920873" | "5119800" | "5287800" | "5293859").PN. OR ("5467697").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 11:19 AM
L245	12	("D181298").URPN.	(USPAT)	OR	OFF	OFF	2021/10/07 11:22 AM
L246	62	("1701989" | "20030192525" | "20050076795" | "20050150395" | "20050167381" | "20060090744" | "2731539" | "3361126" | "3377942" | "4122764" | "4176593" | "4759276" | "4838446" | "4873921" | "4899722" | "4908487" | "4920873" | "5119800" | "5203257" | "5211157" | "5241900" | "5381729" | "5453596" | "5467697" | "5819640" | "5977521" | "5979428" | "6157007" | "6234068" | "6468072" | "6593551" | "6872920" | "6941943" | "7090094" | "7708006" | "D146832" |	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 11:23 AM

		"D168905" | "D181298" | "D192900" | "D213717" | "D401805" | "D434268" | "D468580" | "D488669" | "D548001" | "D626377").PN. OR ("D645297").URPN.					
L247	40	("0399803" | "1063188" | "1189035" | "1345477" | "1604058" | "2154963" | "2325683" | "2325684" | "2906193" | "3107600" | "3153377" | "4074621").PN. OR ("4226175").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 11:29 AM
L248	2	"20100175563"	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 11:39 AM
L249	7	("2010/0175563").URPN.	(USPAT)	OR	OFF	OFF	2021/10/07 11:40 AM
L250	22	"219".clas. and (food near stand)	(USPAT)	OR	OFF	OFF	2021/10/07 11:42 AM
L251	25	"219".clas. and (food near stand)	(US-PGPUB; USPAT)	OR	OFF	OFF	2021/10/07 11:43 AM
L252	0	"99".clas. and (Chafing near Warmer)	(USPAT)	OR	OFF	OFF	2021/10/07 11:46 AM
L253	5	(Chafing near Warmer)	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 11:46 AM
L254	46	"99".clas. and (heat$3 near stand)	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 11:46 AM
L255	0	(circular near heating near stand)	(USPAT)	OR	OFF	OFF	2021/10/07 11:49 AM
L256	0	(circular near heating near stand)	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 11:49 AM
L257	5	"6412448"	(USPAT)	OR	OFF	OFF	2021/10/07 11:51 AM
L258	25	"4759274"	(USPAT)	OR	OFF	OFF	2021/10/07 11:52 AM
L259	32	"5467697"	(USPAT)	OR	OFF	OFF	2021/10/07 11:53 AM
L260	0	"20140311356"	(USPAT)	OR	OFF	OFF	2021/10/07 11:53 AM
L261	1	"20140311356"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 11:53 AM
L262	5	"219".clas. and (kettle near2 stand)	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 11:56 AM
L263	4	"99".clas. and (kettle near2 stand)	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 11:57 AM
L264	8	"99".clas. and (coffee near stand) and heat$3	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 11:59 AM
L265	0	"99".clas. and (coffee near rack) and heat$3	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 12:00 PM

L266	8	"99".clas. and (beverage near stand) and heat$3	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 12:00 PM
L267	1829945	EP "1500357"	(USPAT)	OR	OFF	OFF	2021/10/07 12:26 PM
L268	77	EP "1500357"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	OFF	OFF	2021/10/07 12:32 PM
L269	88	"7946217"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	OFF	OFF	2021/10/07 12:43 PM
L270	95	("20020023543" | "20040112223" | "20050034604" | "2778739" | "3607297" | "5388502" | "5398595" | "5472719" | "5598764" | "5762987" | "5794519" | "6182554" | "6752070" | "7024985").PN. OR ("7946217").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 12:43 PM
L271	9	"9795243"	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 01:12 PM
L272	206	("20010043954" | "20020005367" | "20020023543" | "20020035929" | "20020048621" | "20020059870" | "20020078831" | "20020148356" | "20030006185" | "20030041739" | "20030167928" | "20030200872" | "20030213370" | "20030222089" | "20030226449" | "20040020368" | "20040020922" | "20040118290" | "20040182247" | "20040244600" | "20050051478" | "20050160918" | "20050172819" | "20050236323" | "20050257695" | "20050266122" | "20050284303" | "20060019000" | "20060107841" | "20060159815" | "20060174769" |	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 01:15 PM

		"20060196364" | "20060254428" | "20070175334" | "20070277677" | "20090229471" | "20100083843" | "20100288131" | "20100303964" | "20110209623" | "20110274802" | "20120207895" | "20120207896" | "20120276264" | "20120285330" | "20120285334" | "20130017303" | "20130025466" | "20130156897" | "20140245895" | "20140287105" | "2433815" | "3022411" | "3115822" | "3120170" | "3136241" | "3199682" | "3224360" | "3316388" | "3336857" | "3384004" | "3403617" | "3405630" | "3583308" | "3592126" | "3607297" | "3695168" | "3757670" | "3844206" | "3948157" | "3958502" | "4052318" | "4086848" | "4143590" | "4164644" | "4221670" | "4253385" | "4286515" | "4510853" | "4550024" | "4603621" | "4703687" | "4704954" | "4706555" | "4721835" | "4739697" | "4832845" | "4833979" | "4858523" | "4865737" | "4967648" | "4986172" | "4998463" | "5000082" | "5012059" | "5028328" | "5046409" | "5072660" | "5123335" | "5190653" | "5233914" | "5242702" | "5265517" | "5287797" | "5325765" | "5335589" | "5343799" | "5347916").PN. OR ("5363745" | "5398596" | "5401328" | "5403605" | "5406882" | "5463932" | "5490448" | "5526733" | "5531152" | "5562941" | "5582730" | "5582731" | "5635233" | "5636563" | "5669287" | "5676041" | "5775206" | "5829340"					

		| "5840189" | "5865094" | "5870943" | "5887510" | "5897899" | "5924563" | "5932260" | "6065609" | "6136352" | "6189438" | "6227102" | "6231909" | "6250209" | "6253662" | "6263781" | "6440256" | "6589577" | "6606938" | "6607762" | "6645537" | "6655260" | "6658989" | "6662955" | "6708600" | "6727484" | "6740345" | "6758130" | "6786136" | "6832542" | "6843165" | "6904840" | "6948420" | "6968775" | "7047870" | "7081263" | "7131369" | "7320274" | "7730829" | "7946217" | "8047127" | "8087347" | "D431423" | "D454433" | "D454434" | "D474110" | "D474111" | "D502362" | "RE37173").PN. OR ("9232871").URPN.					
L273	21	"11777831"	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 01:45 PM
L274	21	"11777831"	(US-PGPUB; USPAT)	OR	OFF	OFF	2021/10/07 02:33 PM
L275	11	"11777831"	(US-PGPUB)	OR	OFF	OFF	2021/10/07 02:35 PM
L276	224	("20020023543"|"6688490"|"6832542"|"7318374"|"20020144604"|"20040182247"|"2407118"|"4152464"|"4164644"|"4510853"|"4858523"|"5072660"|"5401328"|"5932260"|"6231909"|"6662955"|"20100047419"|"20120118880"|"20140124435"|"20020148356"|"3607297"|"5242702"|"5840189"|"6948420"|"20020005367"|"20020035929"|"20020059870"|"20040118290"|"20040244600"|"20060254428"|"2433815"|"3224360"|"3695168"|"3958502"|"4052318"|"4967648"|"5012629"|"5197374"|"5287797"|"5403605"|"5463932"|"5490448"|"5870943"|"6658989"|"8087347"	(US-PGPUB; USPAT)	OR	OFF	OFF	2021/10/07 02:51 PM

		|"D474110"|"201201487 09"|"20140004231"|"20 150050391"|"20180116 444"|"9795243"|"31996 82"|"4706555"|"649938 8"|"20030041739"|"200 30213370"|"200400203 68"|"20060019000"|"37 57670"|"4286515"|"455 0024"|"5000082"|"5028 328"|"5046409"|"51906 53"|"5343799"|"564941 2"|"6138551"|"6440256" |"6645537"|"10336531"| "20100303964"|"20110 274802"|"20120207895 "|"20120207896"|"2012 0321748"|"2012032873 9"|"20140008368"|"201 60029833"|"201702582 60"|"8047127"|"200502 66122"|"3136241"|"822 1813"|"20040005384"|" 20050172819"|"200601 07841"|"3316388"|"408 6848"|"4656932"|"4703 687"|"4739697"|"48365 92"|"4848815"|"486573 7"|"4957217"|"5406882" |"6253662"|"6727484"|" 6758130"|"6777007"|"7 081263"|"7461587"|"77 30829"|"RE37173"|"201 20308688"|"201301568 97"|"20140287105"|"20 160206133"|"20170158 422"|"9844292"|"20050 284303"|"20130017303 "|"20130095212"|"2016 0016727"|"6189438"|"6 202542"|"20010043954 "|"20050257695"|"2234 397"|"3022411"|"41435 90"|"4735719"|"483284 5"|"4986172"|"5398596" |"5562941"|"5669287"|" 5865094"|"5887510"|"5 913964"|"6263781"|"D4 31423"|"20090229471"| "10450130"|"10450131" |"20120058226"|"20050 236323"|"6740345"|"20 030167928"|"20060236 871"|"20070151460"|"2 0070277677"|"2242684 "|"2443520"|"2546874"|" 3336857"|"3384004"|"3 592126"|"4221670"|"47					

		21835"|"4833979"|"4995310"|"4998463"|"5123335"|"5171457"|"5265517"|"5347916"|"5363745"|"5635233"|"5775206"|"5895672"|"5897899"|"6227102"|"6250209"|"6273293"|"D474111"|"20120097602"|"20120276264"|"20130025466"|"20140141128"|"20150175347"|"20160068336"|"20030200872"|"20030222089"|"20070175334"|"5325765"|"20020048621"|"20020078831"|"20030006185"|"20050160918"|"3405630"|"5298267"|"5531152"|"5829340"|"6065609"|"6589577"|"6607762"|"6968775"|"7320274"|"D454433"|"20100083843"|"20100288131"|"20130055903"|"20150173555"|"20160311608"|"9149149"|"20040045443"|"20060159815"|"4800089"|"6079315"|"20030226449"|"20040020922"|"20050051478"|"20070148290"|"3403617"|"3948157"|"4603621"|"4676396"|"4704954"|"5012059"|"5097984"|"5120439"|"5233914"|"5526733"|"5582731"|"5636563"|"5924563"|"6786136"|"7377089"|"8327754"|"D502362"|"20120258210"|"20160157660").PN.					
L277	304	"6606938"	(US-PGPUB; USPAT)	OR	OFF	OFF	2021/10/07 03:11 PM
L278	1	"09782622"	(US-PGPUB; USPAT)	OR	OFF	OFF	2021/10/07 03:18 PM
L279	77	EP "1500357"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	OFF	OFF	2021/10/07 03:24 PM
L280	5	(US-0336531-$ | US-0450130-$ | US-0450131-$ | US-16900462-$ | US-1844292-$ | US-6900462-$).DID.	(US-PGPUB; USPAT)	OR	OFF	OFF	2021/10/07 03:40 PM
L281	2225	"99".clas. and (capsule	(US-PGPUB; USPAT)	OR	OFF	OFF	2021/10/07

		or cartridge)					03:40 PM
L282	2225	"99".clas. and (capsule or cartridge)	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 03:41 PM
L283	12	"7685931"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 04:34 PM
L284	3	"10865039"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 04:40 PM
L285	9	"9795243"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/07 04:43 PM
L286	72	("3292527" | "3374927" | "3385475" | "3470812" | "3584767" | "3628444" | "3752362" | "3754463" | "3926339" | "4259573" | "5472719" | "5709539" | "5723861" | "5773067" | "5801820" | "5897899" | "6606938" | "6810788" | "6955116").PN. OR ("7063238").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 05:00 PM
L287	1	"16900462"	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 06:44 PM
L288	9	"9795243"	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/07 07:32 PM
L289	41	"8720320"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/28 02:53 PM
L290	21	"11777831"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/28 03:11 PM
L291	6	"15790398"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/28 03:13 PM
L292	9	"9795243"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/10/28 03:13 PM
L293	1	"16355174"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	OFF	OFF	2021/11/01 06:20 PM
L294	7	"99".clas. and (capsule) and (internal near (movable or piercing or cutting or protruding))	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	OFF	OFF	2021/11/01 08:13 PM
L295	0	"99".clas. and (capsule or cartridge) same (piericng)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	OFF	OFF	2021/11/01 08:15 PM
L296	12	EP "2298671"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/11/01 08:17 PM
L297	32	EP "2298671"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	OFF	OFF	2021/11/01 08:17 PM
L298	5	"20150157164"	(US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	OFF	OFF	2021/11/10 08:19 AM

			JPO; DERWENT; IBM_TDB)				
L299	7	"20140072675"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	OFF	OFF	2021/11/10 08:20 AM
L300	8	"20160157660"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	OFF	OFF	2021/11/10 08:20 AM
L301	49	"8291812"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	OFF	OFF	2021/11/10 08:21 AM
L302	30	"12620584"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	OFF	OFF	2021/11/10 08:28 AM
L303	30	"12620584"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	OFF	OFF	2021/11/10 08:28 AM
L304	573	"5325765"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	OFF	OFF	2021/11/10 08:30 AM
L305	21	"11777831"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	OFF	OFF	2021/11/10 08:32 AM
L306	34	"12610181"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	OFF	OFF	2021/11/10 08:36 AM
L307	10	("20130017303" | "5325765" | "7836819" | "7946217" | "8561524" | "9402501" | "D255313" | "D407602" | "D688095" | "D694579").PN. OR ("9756974").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/10 08:41 AM
L308	80	("0481547" | "0747290" | "0846473" | "0865776" | "1134661" | "20010032822" | "20020148358" | "20030000887" | "20030209151" | "20030226449" | "20040094039" | "20050236323" | "20070186784" | "20070221069" | "20070259074" |	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/10 08:42 AM

		"20080196593" | "20090241344" | "20100154651" | "20100176037" | "20100178392" | "20100212509" | "20100224078" | "20100263548" | "20120285330" | "20120285334" | "2464722" | "2570997" | "3592126" | "4080299" | "4374026" | "4882055" | "5266194" | "5853581" | "5902620" | "5910205" | "5988190" | "6026733" | "6079315" | "6192786" | "6202541" | "6244162" | "6260476" | "6453800" | "6880454" | "6912949" | "6960295" | "7150219" | "7219600" | "7231870" | "7464637" | "7836820" | "7870821" | "7891286" | "8033212" | "D560097").PN. OR ("8561524").URPN.					
L309	80	("0481547" | "0747290" | "0846473" | "0865776" | "1134661" | "20010032822" | "20020148358" | "20030000887" | "20030209151" | "20030226449" | "20040094039" | "20050236323" | "20070186784" | "20070221069" | "20070259074" | "20080196593" | "20090241344" | "20100154651" | "20100176037" | "20100178392" | "20100212509" | "20100224078" | "20100263548" | "20120285330" | "20120285334" | "2464722" | "2570997" | "3592126" | "4080299" | "4374026" | "4882055" | "5266194" | "5853581" | "5902620" | "5910205" | "5988190" | "6026733" | "6079315" | "6192786" | "6202541" | "6244162" |	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/10 08:56 AM

		"6260476" | "6453800" | "6880454" | "6912949" | "6960295" | "7150219" | "7219600" | "7231870" | "7464637" | "7836820" | "7870821" | "7891286" | "8033212" | "D560097").PN. OR ("8561524").URPN.					
L310	29	("5910205" | "7815953" | "8147887" | "D255313" | "D340382" | "D349211" | "D407602" | "D567021" | "D606363" | "D652266" | "D677120").PN. OR ("D688095").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/10 09:13 AM
L311	11	"11777831"	(US-PGPUB)	AND	OFF	OFF	2021/11/10 09:17 AM
L312	0	1139+2893	(US-PGPUB)	AND	OFF	OFF	2021/11/10 09:18 AM
L313	3	"11392893"	(US-PGPUB)	AND	OFF	OFF	2021/11/10 09:18 AM
L314	305	A47J31/20.cpc.	(US-PGPUB)	AND	OFF	OFF	2021/11/10 02:21 PM
L315	703	A47J31/20.cpc.	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/11/10 02:21 PM
L316	329	A47J31/4403.cpc. and (cartridge or capsule) and (bevereage or coffee or brew$3)	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/11/10 03:57 PM
L317	216	B65B29/022.cpc. and (cartridge or capsule) and (bevereage or coffee or brew$3)	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/11/10 04:31 PM
L318	81	A47J31/404.cpc. and (cartridge or capsule) and (bevereage or coffee or brew$3)	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/11/10 04:41 PM
L319	1357	A47J31/407.cpc. and (cartridge or capsule) and (bevereage or coffee or brew$3)	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/11/10 04:54 PM
L320	0	L319 and (needel)	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/11/10 04:55 PM
L321	444	L319 and (needle)	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/11/10 04:55 PM
L322	291	99/295.ccls. and (cartridge or capsule) and (bevereage or coffee or brew$3) and (needle)	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/11/10 05:09 PM
L323	2	"20070186784"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/11/11

							10:55 AM
L324	1	"20060107841"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/11/11 11:11 AM
L325	572	(US-20110030563-$ or US-20100288131-$ or US-20100203208-$ or US-20100186599-$ or US-20100154651-$ or US-20100154647-$ or US-20100129512-$ or US-20100101428-$ or US-20100077928-$ or US-20100064899-$ or US-20100043646-$ or US-20100043645-$ or US-20100043644-$ or US-20100037779-$ or US-20090280219-$ or US-20090255410-$ or US-20090205503-$ or US-20090158938-$ or US-20090126577-$ or US-20090017177-$ or US-20090007796-$ or US-20090007794-$ or US-20080317931-$ or US-20080245236-$ or US-20080216666-$ or US-20080105131-$).did. or (US-20070186784-$ or US-20070084352-$ or US-20070068395-$ or US-20100303964-$ or US-20070224319-$ or US-20060110507-$ or US-20060019000-$ or US-20120258210-$ or US-20140287105-$ or US-20140020565-$ or US-20100147156-$ or US-20140026761-$ or US-20150108011-$ or US-20070144355-$ or US-20150196159-$ or US-20140072676-$ or US-20050051478-$ or US-20190233200-$ or US-20190225414-$ or US-20190225413-$ or US-20190202629-$ or US-20190177079-$ or US-20190177078-$ or US-20190167031-$ or US-20140287099-$ or US-20190100376-$ or US-20190084758-$).did. or	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT)	OR	OFF	OFF	2021/11/11 11:14 AM

		(US-20190077588-$ or US-20160009486-$ or US-20150314955-$ or US-20190047771-$ or US-20190055084-$ or US-20190055083-$ or US-20190047782-$ or US-20190016527-$ or US-20130340626-$ or US-20130017303-$ or US-20190002192-$ or US-20180370720-$ or US-20180346239-$ or US-20180332995-$ or US-20180325309-$ or US-20180325301-$ or US-20180319582-$ or US-20180305194-$ or US-20150017293-$ or US-20180303275-$ or US-20180297776-$ or US-20180297775-$ or US-20180297309-$ or US-20180290825-$ or US-20180290824-$ or US-20180273286-$ or US-20180257856-$).did. or (US-20180237217-$ or US-20180220840-$ or US-20170143158-$ or US-20180215533-$ or US-20180206667-$ or US-20180201436-$ or US-20150246741-$ or US-20180178973-$ or US-20180178972-$ or US-20180162634-$ or US-20180148250-$ or US-20160137402-$ or US-20180134485-$ or US-20160198732-$ or US-20150158666-$ or US-20180125288-$ or US-20180116446-$ or US-20150360854-$ or US-20180084941-$ or US-20140272018-$ or US-20180044104-$ or US-20180037402-$ or US-20180029790-$ or US-20180016092-$ or US-20180002104-$ or US-20170362020-$ or US-20150246768-$).did. or (US-20170355515-$ or US-20170334624-$ or US-20170334623-$ or					

		US-20170327308-$ or US-20170326617-$ or US-20170320658-$ or US-20170313496-$ or US-20150245733-$ or US-20170305653-$ or US-20140127364-$ or US-20170280750-$ or US-20170275090-$ or US-20170275089-$ or US-20170275088-$ or US-20170275087-$ or US-20140141128-$ or US-20170258264-$ or US-20170174418-$ or US-20100203198-$ or US-20110189350-$ or US-20150150409-$ or US-20170120203-$ or US-20150344285-$ or US-20170081111-$ or US-20170071395-$ or US-20110303095-$ or US-20170050799-$).did. or (US-20150257580-$ or US-20170042365-$ or US-20170036857-$ or US-20170036854-$ or US-20130236609-$ or US-20160288990-$ or US-20160345769-$ or US-20130059039-$ or US-20130078341-$ or US-20160332805-$ or US-20160325898-$ or US-20160280430-$ or US-20160214787-$ or US-20160206133-$ or US-20160194147-$ or US-20160176624-$ or US-20150201791-$ or US-20160157660-$ or US-20160068334-$ or US-20160145037-$ or US-20160137401-$ or US-20160130076-$ or US-20160120356-$ or US-20160114967-$ or US-20160113435-$ or US-20160107831-$ or US-20160066591-$).did. or (US-20160052706-$ or US-20160016727-$ or US-20160001968-$ or US-20160001903-$ or US-20150368033-$ or US-20150353275-$ or					

		US-20150353272-$ or US-20150336736-$ or US-20150320254-$ or US-20150314954-$ or US-20150307266-$ or US-20150282663-$ or US-20150272379-$ or US-20150251847-$ or US-20150208852-$ or US-20150203285-$ or US-20110283890-$ or US-20150157164-$ or US-20150151903-$ or US-20150140182-$ or US-20150125576-$ or US-20140272016-$ or US-20120070543-$ or US-20150086680-$ or US-20120070551-$ or US-20150072053-$ or US-20150072052-$).did. or (US-20150064324-$ or US-20150056351-$ or US-20150047509-$ or US-20150050391-$ or US-20140170271-$ or US-20150021209-$ or US-20150017290-$ or US-20140377413-$ or US-20140373725-$ or US-20120321756-$ or US-20140356484-$ or US-20140342060-$ or US-20140342059-$ or US-20140318380-$ or US-20140318379-$ or US-20140314919-$ or US-20140290494-$ or US-20120251671-$ or US-20140220189-$ or US-20140220190-$ or US-20140205721-$ or US-20140196608-$ or US-20140190863-$ or US-20140178538-$ or US-20140170269-$ or US-20140161940-$ or US-20140161936-$).did. or (US-20090223375-$ or US-20140123859-$ or US-20140120217-$ or US-20140106036-$ or US-20100159109-$ or US-20140090564-$ or US-20140087028-$ or US-20140072677-$ or US-20140072675-$ or						

		US-20140069280-$ or US-20140065269-$ or US-20120121779-$ or US-20140053735-$ or US-20140037802-$ or US-20140017359-$ or US-20140004231-$ or US-20130302476-$ or US-20100303965-$ or US-20130270176-$ or US-20130259983-$ or US-20130247774-$ or US-20130243910-$ or US-20130216663-$ or US-20100132564-$ or US-20100239734-$ or US-20130180409-$ or US-20130164414-$).did. or (US-20130146495-$ or US-20130139700-$ or US-20130139699-$ or US-20130125762-$ or US-20120058226-$ or US-20130122157-$ or US-20130115340-$ or US-20130105340-$ or US-20130095212-$ or US-20130064936-$ or US-20130045307-$ or US-20130040021-$ or US-20130025466-$ or US-20120328739-$ or US-20120308688-$ or US-20120276264-$ or US-20120269933-$ or US-20120251668-$ or US-20120240779-$ or US-20120207896-$ or US-20120207895-$ or US-20120201933-$ or US-20120201932-$ or US-20120196008-$ or US-20100003371-$ or US-20080187638-$ or US-20120171333-$).did. or (US-20120121780-$ or US-20120118166-$ or US-20120097602-$ or US-20120052164-$ or US-20120052163-$ or US-20120015081-$ or US-20120015080-$ or US-20110305801-$ or US-20110297005-$ or US-20110283891-$ or US-20110274794-$ or US-20110142996-$ or						

		US-20110097450-$ or US-20110076361-$ or US-20110073607-$ or US-20110064852-$ or US-20110045144-$ or US-20110041702-$ or US-20110020497-$ or US-20100307930-$ or US-20100297299-$ or US-20100206177-$ or US-20100180774-$ or US-20100178392-$ or US-20060196364-$ or US-20100154644-$ or US-20100108541-$).did. or (US-20050150390-$ or US-20100062127-$ or US-20100047418-$ or US-20100005973-$ or US-20090320693-$ or US-20090320692-$ or US-20090263545-$ or US-20090235827-$ or US-20090211458-$ or US-20090110775-$ or US-20080257165-$ or US-20050115415-$ or US-20070181003-$ or US-20070148290-$ or US-20070062375-$ or US-20060236871-$ or US-20060174769-$ or US-20060065127-$ or US-20030172813-$ or US-20020078831-$ or US-20190208950-$ or US-20110168029-$ or US-20120285330-$ or US-20060107841-$ or US-20020023543-$ or US-20120118880-$ or US-20110274802-$).did. or (US-20110197771-$ or US-20110185910-$ or US-20110100229-$ or US-20090223373-$ or US-20040250686-$ or US-20020152895-$ or US-20020144604-$ or US-20020144603-$ or US-20020144602-$ or US-20150230652-$ or US-20150027318-$ or US-20210261280-$ or US-20210253334-$ or US-20200253413-$ or US-20200231370-$ or						

		US-20200189772-$ or US-20170043943-$ or US-20200017288-$ or US-20190047783-$ or US-20180362198-$ or US-20180242776-$ or US-20170361961-$ or US-20170360239-$ or US-20170360057-$ or US-20160311610-$ or US-20160311609-$ or US-20160280453-$).did. or (US-20120090475-$ or US-20160145038-$ or US-20150158609-$ or US-20110117248-$ or US-20210331864-$ or US-20200121115-$ or US-20200047984-$ or US-20190328170-$ or US-20190313835-$ or US-20130129870-$ or US-20150201790-$ or US-20170355514-$ or US-20170319001-$ or US-20170295988-$ or US-20160157666-$ or US-20120100259-$ or US-20150238044-$ or US-20110259204-$ or US-20150068405-$ or US-20150056352-$ or US-20150001100-$ or US-20140318381-$ or US-20140305315-$ or US-20140186498-$ or US-20130186282-$ or US-20140318378-$ or US-20140287104-$).did. or (US-20130133522-$ or US-20130118360-$ or US-20050223904-$).did. or (US-8304006-$ or US-8220382-$ or US-8202560-$ or US-8161868-$ or US-8161866-$ or US-8147887-$ or US-7993691-$ or US-7946217-$ or US-7930972-$ or US-7856921-$ or US-7854192-$ or US-7836819-$ or US-7815953-$ or US-7703381-$ or US-7624673-$ or US-					

		7604826-$ or US-7279188-$ or US-5897899-$ or US-5826492-$ or US-5762987-$ or US-5649472-$ or US-5402707-$ or US-5398595-$ or US-5327815-$ or US-4846052-$ or US-5325765-$).did. or (US-6079315-$ or US-6182554-$ or US-6644173-$ or US-7490542-$ or US-4136202-$ or US-7552672-$ or US-8640604-$ or US-8322271-$ or US-7856920-$ or US-6606938-$ or US-8846120-$ or US-6672200-$ or US-6666130-$ or US-6142063-$ or US-6082247-$ or US-3615708-$ or US-2968560-$ or US-9486108-$ or US-11001437-$ or US-11001436-$ or US-11001433-$ or US-10144579-$ or US-9764891-$ or US-5472719-$ or US-5242702-$ or US-9232871-$ or US-9463921-$).did. or (US-6832542-$ or US-8720320-$ or US-8794125-$ or US-7063238-$ or US-8561524-$ or US-7836820-$ or US-5656311-$ or US-9402501-$ or US-11166587-$ or US-8927037-$ or US-7681492-$).did. or (US-2968560-$).did. or (WO-02081337-$ or WO-2010076698-$ or JP-4836776-$ or CA-2765371-$ or CA-2819140-$ or EP-2520202-$ or CA-2811153-$ or EP-2647317-$ or CA-					

		2521063-$ or FR-2993869-$ or WO-2008113779-$ or EP-1864917-$ or WO-2012011053-$ or WO-2008125256-$ or WO-2014041419-$ or WO-2014033339-$ or EP-1992575-$ or EP-1500357-$ or WO-2009050540-$ or EP-2374733-$ or EP-2345602-$ or EP-1364605-$ or WO-2015136433-$ or EP-2612579-$ or WO-2012076135-$ or EP-2409608-$).did. or (WO-2013079814-$ or KR-200450676-$ or CA-2526785-$ or EP-1775234-$ or WO-2006045537-$ or WO-2007114685-$ or WO-2008132571-$ or WO-2008117329-$ or WO-03059778-$ or WO-2004064582-$ or CH-711427-$ or EP-3181484-$ or WO-2015117892-$ or GB-2520492-$ or EP-2966006-$ or GB-2530062-$ or CA-2701826-$ or EP-2868598-$ or EP-2298671-$).did. or (EP-1775234-$ or WO-2008132571-$ or WO-2008125256-$ or WO-2007114685-$ or WO-2006045537-$ or EP-1500357-$).did. or (JP-2000355375-$ or JP-2012005818-$ or JP-2005211659-$ or JP-01310612-$).did. or (EP-1775234-$ or WO-2006030461-$ or JP-2000355375-$ or US-20050084569-$ or GB-2531687-$ or GB-2530680-$ or GB-2530062-$ or WO-2015177591-$ or WO-2015128799-$ or ES-2538740-$ or EP-2886490-$ or WO-					

		2014191044-$ or WO-2014188285-$ or DE-102012223291-$ or WO-2014061045-$ or FR-2993869-$ or EP-2647317-$ or ES-2398277-$ or WO-2012150542-$ or WO-2012123106-$ or WO-2012110323-$ or WO-2012100836-$ or WO-2012100976-$ or WO-2013135937-$ or WO-2012072509-$ or WO-2012042487-$).did. or (WO-2012034819-$ or FR-2962893-$ or WO-2011159162-$ or WO-2011159163-$ or WO-2013060918-$ or EP-2374733-$ or WO-2010137953-$ or WO-2010118543-$ or WO-2009103592-$ or WO-2009084059-$ or WO-2009050540-$ or WO-2008148834-$ or EP-1992575-$ or WO-2008132571-$ or WO-2008125256-$ or WO-2008113779-$ or WO-02081337-$ or WO-2015136433-$ or US-20150374165-$ or WO-2010137947-$ or EP-1500357-$ or US-20140072675-$).did.					
L326	339	L325 and (filter)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	OFF	OFF	2021/11/11 11:15 AM
L327	4	"16900462"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	OFF	OFF	2021/11/11 11:59 AM
L328	386	("0240402" | "0346278" | "0370141" | "0845968" | "1168544" | "1302483" | "2997940" | "3199682" | "3260190" | "3403617" | "3579351" | "3615708" | "3754463" | "3971305" | "4204966" | "4321139" | "4417504" | "4584101" | "4859337" | "4981588").PN. OR ("5325765").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/11 12:08 PM

L329	1309	"99".clas. and (capsule or cartridge) and (filter)	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/11 12:31 PM
L330	1309	"99".clas. and (capsule or cartridge) and (filter)	(US-PGPUB; USPAT; USOCR)	AND	OFF	OFF	2021/11/11 12:32 PM
L331	138	"7513192"	(US-PGPUB; USPAT; USOCR)	AND	OFF	OFF	2021/11/11 01:02 PM
L332	283	"6645537"	(US-PGPUB; USPAT; USOCR)	AND	OFF	OFF	2021/11/11 01:02 PM
L333	28	"12610181"	(US-PGPUB; USPAT; USOCR)	AND	OFF	OFF	2021/11/11 01:07 PM
L334	512	"5325765"	(US-PGPUB; USPAT; USOCR)	AND	OFF	OFF	2021/11/11 01:08 PM
L335	2	"20070186784"	(US-PGPUB; USPAT; USOCR)	AND	OFF	OFF	2021/11/11 01:50 PM
L336	0	TW "201136537"	(US-PGPUB; USPAT; USOCR)	AND	OFF	OFF	2021/11/11 02:19 PM
L337	1	"20060107841"	(US-PGPUB; USPAT; USOCR)	AND	OFF	OFF	2021/11/11 03:24 PM
L338	2	"20050223904"	(US-PGPUB; USPAT; USOCR)	AND	OFF	OFF	2021/11/11 04:12 PM
L339	2	"20070186784"	(US-PGPUB; USPAT; USOCR)	AND	OFF	OFF	2021/11/11 04:48 PM
L340	2	"20070186784"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/11/11 07:10 PM
L341	6	WO "2008125256"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/11/11 07:19 PM
L342	51	WO "2008125256"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	OFF	OFF	2021/11/11 07:19 PM
L343	136	((("Rivera") near3 ("Adrian"))).INV.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/11 07:29 PM
L345	1	"16900462"	(US-PGPUB; USPAT)	AND	OFF	OFF	2021/12/22 10:45 AM
L349	4	"16900462"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	ADJ	ON	ON	2021/12/22 12:23 PM
L350	2	"16219262"	(US-PGPUB; USPAT)	AND	ON	ON	2022/02/17 01:13 PM
L351	0	"13724658"	(US-PGPUB; USPAT)	AND	ON	ON	2022/02/17 01:25 PM
L352	2	"16219262"	(US-PGPUB; USPAT)	AND	ON	ON	2022/02/17 01:27 PM
L353	2	"16181740"	(US-PGPUB; USPAT)	AND	ON	ON	2022/02/17 01:34 PM
L354	2	"16058206"	(US-PGPUB; USPAT)	AND	ON	ON	2022/02/17 01:39 PM
L355	3	"16058216"	(US-PGPUB; USPAT)	AND	ON	ON	2022/02/17 01:41 PM

L356	2	"16233337"	(US-PGPUB; USPAT)	AND	ON	ON	2022/02/17 01:47 PM
L357	2	"16019352"	(US-PGPUB; USPAT)	AND	ON	ON	2022/02/17 01:48 PM
L358	16	EP "1364605"	(US-PGPUB; USPAT)	AND	ON	ON	2022/02/17 02:06 PM
L359	65	EP "1364605"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/02/17 02:06 PM
L360	69	"7412921"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/02/17 02:08 PM
L361	5	"20100303964"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/02/17 02:11 PM
L362	53	"7490542"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/02/17 02:12 PM
L363	6	"13744623"	(USPAT)	ADJ	ON	ON	2022/03/22 10:02 AM
L364	19	"13744623"	(US-PGPUB; USPAT)	ADJ	ON	ON	2022/03/22 10:02 AM
L365	0	((("Krger") near3 ("Marc"))).INV.	(US-PGPUB)	OR	ON	ON	2022/03/22 10:04 AM
L366	0	((("Krger") near3 ("Marc"))).INV.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/03/22 10:05 AM
L367	2	"14411571"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 10:07 AM
L368	24	((("K-FEE") near3 ("SYSTEM") near3 ("GMBH"))).AS,AANM.	(USPAT)	OR	ON	ON	2022/03/22 10:10 AM
L369	0	"17547363"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 10:12 AM
L370	10	"10994923"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 10:12 AM
L371	419	("0923706" | "1036589" | "1051426" | "1329461" | "1485200" | "1689665" | "20010038204" | "20010047724" | "20010048957" | "20020020659" | "20020048621" | "20020085164" | "20020088807" | "20020104373" | "20020110626" | "20020148356" | "20030005826" |	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/03/22 10:44 AM

		"20030033938" | "20030039731" | "20030121979" | "20030172813" | "20030222089" | "20040005384" | "20040045443" | "20040089158" | "20040089602" | "20040115310" | "20040118295" | "20040142070" | "20040155113" | "20040182250" | "20040188459" | "20050000164" | "20050016383" | "20050045566" | "20050051478" | "20050061478" | "20050150391" | "20050160919" | "20050183581" | "20050235571" | "20050266122" | "20060010744" | "20060010784" | "20060032427" | "20060084344" | "20060107841" | "20060194004" | "20060215978" | "20060228447" | "20060236871" | "20070144355" | "20070148290" | "20070157821" | "20070181005" | "20070181412" | "20070203587" | "20070257118" | "20070283640" | "20080024523" | "20080026121" | "20080028946" | "20080038441" | "20080085356" | "20080116105" | "20080122217" | "20080148948" | "20080187638" | "20080245236" | "20080299262" | "20080302251" | "20090004343" | "20090007793" | "20090007796" | "20090092711" |					

		"20090126577" | "20090136626" | "20090205747" | "20090211458" | "20090211713" | "20090220650" | "20090223375" | "20090249961" | "20090289121" | "20090291379" | "20090324788" | "20090324791" | "20100000667" | "20100007848" | "20100028495" | "20100050880" | "20100051532" | "20100054532" | "20100072272" | "20100078480").PN. OR ("20100108541" | "20100132564" | "20100147418" | "20100147872" | "20100173056" | "20100181378" | "20100196545" | "20100239717" | "20100239733" | "20100239734" | "20100260915" | "20100263329" | "20100264640" | "20100288131" | "20100288133" | "20100303964" | "20100308061" | "20110005399" | "20110008913" | "20110020500" | "20110033580" | "20110041702" | "20110064852" | "20110076361" | "20110089135" | "20110097450" | "20110142996" | "20110189350" | "20110212225" | "20110250333" | "20110250812" | "20110303095" | "20110308397" | "20120006685" | "20120024160" | "20120031794" | "20120058226" | "20120060697"				

		"20120070542" | "20120070543" | "20120070551" | "20120097041" | "20120097602" | "20120100264" | "20120121765" | "20120123106" | "20120126834" | "20120183657" | "20120195155" | "20120201933" | "20120207893" | "20120207895" | "20120251668" | "20120251672" | "20120258210" | "20120295234" | "20120308688" | "20130055903" | "20130059039" | "20130064929" | "20130064937" | "20130084363" | "20130084376" | "20130099597" | "20130101716" | "20130122153" | "20130125762" | "20130129872" | "20130136828" | "20130149424" | "20130156897" | "20130206011" | "20130209618" | "20130209619" | "20130209620" | "20130209622" | "20130216663" | "20130230627" | "20130243910" | "20130312619" | "20130327223" | "20140001563" | "20140004231" | "20140017359" | "20140046126" | "20140127364" | "20140141128" | "20140141129" | "20140161936" | "20140178538" | "20140196608" | "20140220191" | "20140224130").PN. OR ("20140230370" | "20140263033" | "20140272018" |					

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L373	8	("20020048621"|"20100078480"|"20130129876"|"7444925"|"7856920"|"8087347"|"8695484"|"9320385").PN.	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 10:57 AM
L374	1	((("Faiss") near3 ("Markus"))).INV.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/03/22 11:11 AM
L375	1	"16316200"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 11:26 AM
L376	5	"10858176"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 01:52 PM
L377	12	"10858177"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 02:25 PM
L378	7	"17108175"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 02:30 PM
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L381	2	"20180125288"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 03:21 PM
L382	0	"17547363"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 03:28 PM
L383	0	"17670765"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 03:28 PM
L384	6	"17324182"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 03:29 PM
L385	2	"11254491"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 03:29 PM
L386	4	"10870531"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 03:33 PM
L387	1	"16119166"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 03:35 PM
L388	623	"99".clas. and (capsule or cartridge) and	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 03:39 PM

		(barcode or RFID or identif$4)					
L389	1	"20080105131"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/22 05:08 PM
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L391	0	"17547363"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 01:50 PM
L392	1	"13877892"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 05:36 PM
L393	19	"13744623"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 06:27 PM
L394	19	"15211823"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 07:34 PM
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L396	19	"15211823"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 07:57 PM
L397	19	"13744623"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 07:58 PM
L398	16	"15646980"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 07:58 PM
L399	0	"17547363"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 08:07 PM
L400	38	(US-2778739-$ | US-3183096-$ | US-3501896-$ | US-3521207-$ | US-3631793-$ | US-3640727-$ | US-4136202-$ | US-4389925-$ | US-4534985-$ | US-4540595-$ | US-4644151-$ | US-4676482-$ | US-4742645-$ | US-4846052-$ | US-4859337-$ | US-4860645-$ | US-4867993-$ | US-4976179-$ | US-5012629-$ | US-5028769-$ | US-5108768-$ | US-5194553-$ | US-5242702-$ | US-5243164-$ | US-5251758-$ | US-5285041-$ | US-5325765-$ | US-5402707-$ | US-5460078-$ | US-5496573-$ | US-	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 09:59 PM

		5501945-$ | US- 5535765-$ | US- 5601716-$ | US- 5637850-$ | US- 5656311-$ | US- 5656316-$ | US- 5656318-$ | US- 5677522-$).DID.					
L401	38	(US-2778739-$ | US- 3183096-$ | US- 3501896-$ | US- 3521207-$ | US- 3631793-$ | US- 3640727-$ | US- 4136202-$ | US- 4389925-$ | US- 4534985-$ | US- 4540595-$ | US- 4644151-$ | US- 4676482-$ | US- 4742645-$ | US- 4846052-$ | US- 4859337-$ | US- 4860645-$ | US- 4867993-$ | US- 4976179-$ | US- 5012629-$ | US- 5028769-$ | US- 5108768-$ | US- 5194553-$ | US- 5242702-$ | US- 5243164-$ | US- 5251758-$ | US- 5285041-$ | US- 5325765-$ | US- 5402707-$ | US- 5460078-$ | US- 5496573-$ | US- 5501945-$ | US- 5535765-$ | US- 5601716-$ | US- 5637850-$ | US- 5656311-$ | US- 5656316-$ | US- 5656318-$ | US- 5677522-$).DID.	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 10:01 PM
L402	40	(US-5725261-$ | US- 5840189-$ | US- 5888549-$ | US- 5895672-$ | US- 5897899-$ | US- 5917165-$ | US- 5941055-$ | US- 5948455-$ | US- 5980743-$ | US- 5994677-$ | US- 6025000-$ | US-	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 10:02 PM

		6153026-$ | US- 6199780-$ | US- 6202929-$ | US- 6213326-$ | US- 6299926-$ | US- 6440256-$ | US- 6451332-$ | US- 6527181-$ | US- 6589577-$ | US- 6598800-$ | US- 6607762-$ | US- 6627244-$ | US- 6645537-$ | US- 6655260-$ | US- 6817538-$ | US- 6861086-$ | US- 6948420-$ | US- 6994879-$ | US- 7408094-$ | US- 7444925-$ | US- 7464518-$ | US- 7543527-$ | US- 7552672-$ | US- 7595870-$ | US- 7673558-$ | US- 7685930-$ | US- 7815953-$ | US- 7856920-$ | US- 7935646-$).DID.					
L403	56	(US-0005384-$ | US- 0005826-$ | US- 0020659-$ | US- 0033938-$ | US- 0038204-$ | US- 0039731-$ | US- 0045443-$ | US- 0047724-$ | US- 0048621-$ | US- 0048957-$ | US- 0085164-$ | US- 0088807-$ | US- 0089158-$ | US- 0089602-$ | US- 0110626-$ | US- 0121979-$ | US- 0148356-$ | US- 0172813-$ | US- 0181005-$ | US- 0222089-$ | US- 20010038204-$ | US- 20010047724-$ | US- 20010048957-$ | US- 20010181005-$ | US- 20020020659-$ | US- 20020048621-$ | US- 20020085164-$ | US- 20020088807-$ | US- 20020110626-$ | US-	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 10:04 PM

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L404	82	(US-0004343-$ | US- 0007793-$ | US- 0010744-$ | US- 0016383-$ | US- 0024536-$ | US- 0026121-$ | US- 0028946-$ | US- 0032427-$ | US- 0038441-$ | US- 0045566-$ | US- 0051478-$ | US- 0061478-$ | US- 0084344-$ | US- 0085356-$ | US- 0107841-$ | US- 0115310-$ | US- 0116105-$ | US- 0118295-$ | US- 0142070-$ | US- 0144355-$ | US- 0148290-$ | US- 0148948-$ | US- 0150391-$ | US- 0155113-$ | US- 0157821-$ | US- 0160919-$ | US- 0181005-$ | US- 0181412-$ | US- 0182250-$ | US- 0183581-$ | US-	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 10:15 PM

		0187638-$ | US- 0188459-$ | US- 0194004-$ | US- 0203587-$ | US- 0228447-$ | US- 0236871-$ | US- 0245236-$ | US- 0257118-$ | US- 0266122-$ | US- 0299262-$ | US- 0302251-$ | US- 20040115310-$ | US- 20040118295-$ | US- 20040142070-$ | US- 20040155113-$ | US- 20040182250-$ | US- 20040188459-$ | US- 20050016383-$ | US- 20050045566-$ | US- 20050051478-$ | US- 20050061478-$ | US- 20050150391-$ | US- 20050160919-$ | US- 20050183581-$ | US- 20050266122-$ | US- 20060010744-$ | US- 20060032427-$ | US- 20060084344-$ | US- 20060107841-$ | US- 20060194004-$ | US- 20060228447-$ | US- 20060236871-$ | US- 20070144355-$ | US- 20070148290-$ | US- 20070157821-$ | US- 20070181005-$ | US- 20070181412-$ | US- 20070203587-$ | US- 20070257118-$ | US- 20080024536-$ | US- 20080026121-$ | US- 20080028946-$ | US- 20080038441-$ | US- 20080085356-$ | US- 20080116105-$ | US- 20080148948-$ | US- 20080187638-$ | US- 20080245236-$ | US- 20080299262-$ | US- 20080302251-$ | US- 20090004343-$ | US- 20090007793-$).DID.					
L405	84	(US-0000667-$ | US- 0005399-$ | US- 0007796-$ | US- 0008913-$ | US- 0020500-$ | US- 0028495-$ | US-	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 10:17 PM

		0033580-$ | US- 0041702-$ | US- 0050880-$ | US- 0051532-$ | US- 0054532-$ | US- 0064852-$ | US- 0072272-$ | US- 0078480-$ | US- 0092711-$ | US- 0108541-$ | US- 0126577-$ | US- 0132564-$ | US- 0136626-$ | US- 0147418-$ | US- 0147872-$ | US- 0172951-$ | US- 0181378-$ | US- 0196545-$ | US- 0211458-$ | US- 0211713-$ | US- 0223375-$ | US- 0239717-$ | US- 0239733-$ | US- 0239734-$ | US- 0249961-$ | US- 0260915-$ | US- 0263329-$ | US- 0264640-$ | US- 0288131-$ | US- 0288133-$ | US- 0289121-$ | US- 0291379-$ | US- 0303964-$ | US- 0308061-$ | US- 0324788-$ | US- 0324791-$ | US- 20090007796-$ | US- 20090092711-$ | US- 20090126577-$ | US- 20090136626-$ | US- 20090211458-$ | US- 20090211713-$ | US- 20090223375-$ | US- 20090249961-$ | US- 20090289121-$ | US- 20090291379-$ | US- 20090324788-$ | US- 20090324791-$ | US- 20100000667-$ | US- 20100028495-$ | US- 20100050880-$ | US- 20100051532-$ | US- 20100054532-$ | US- 20100072272-$ | US- 20100078480-$ | US- 20100108541-$ | US- 20100132564-$ | US- 20100147418-$ | US-					

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L407	84	(US-0001563-$ | US- 0004231-$ | US- 0010680-$ | US- 0017359-$ | US- 0020481-$ | US- 0029702-$ | US- 0046126-$ | US- 0056331-$ | US- 0056340-$ | US- 0127364-$ | US- 0129872-$ | US- 0129876-$ | US-	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 10:23 PM

		0136828-$ | US- 0141128-$ | US- 0141129-$ | US- 0149424-$ | US- 0156897-$ | US- 0161936-$ | US- 0178538-$ | US- 0196608-$ | US- 0206011-$ | US- 0209610-$ | US- 0209618-$ | US- 0209619-$ | US- 0209620-$ | US- 0209622-$ | US- 0216663-$ | US- 0220191-$ | US- 0224130-$ | US- 0230370-$ | US- 0230627-$ | US- 0243910-$ | US- 0263033-$ | US- 0272018-$ | US- 0287104-$ | US- 0287105-$ | US- 0302204-$ | US- 0312619-$ | US- 0327223-$ | US- 0346022-$ | US- 0348984-$ | US- 0370181-$ | US- 20130129872-$ | US- 20130129876-$ | US- 20130136828-$ | US- 20130149424-$ | US- 20130156897-$ | US- 20130206011-$ | US- 20130209610-$ | US- 20130209618-$ | US- 20130209619-$ | US- 20130209620-$ | US- 20130209622-$ | US- 20130216663-$ | US- 20130230627-$ | US- 20130243910-$ | US- 20130312619-$ | US- 20130327223-$ | US- 20140001563-$ | US- 20140004231-$ | US- 20140017359-$ | US- 20140046126-$ | US- 20140127364-$ | US- 20140141128-$ | US- 20140141129-$ | US- 20140161936-$ | US- 20140178538-$ | US- 20140196608-$ | US- 20140220191-$ | US- 20140224130-$ | US-					

		20140230370-$ | US- 20140263033-$ | US- 20140272018-$ | US- 20140287104-$ | US- 20140287105-$ | US- 20140302204-$ | US- 20140346022-$ | US- 20140348984-$ | US- 20140370181-$ | US- 20150010680-$ | US- 20150020481-$ | US- 20150029702-$ | US- 20150056331-$ | US- 20150056340-$).DID.					
L408	78	(US-0001968-$ | US- 0020329-$ | US- 0027374-$ | US- 0037961-$ | US- 0045060-$ | US- 0056351-$ | US- 0058234-$ | US- 0066591-$ | US- 0075506-$ | US- 0079241-$ | US- 0086986-$ | US- 0119220-$ | US- 0128525-$ | US- 0132441-$ | US- 0157164-$ | US- 0158665-$ | US- 0158666-$ | US- 0166204-$ | US- 0173558-$ | US- 0175347-$ | US- 0194146-$ | US- 0201790-$ | US- 0207696-$ | US- 0239652-$ | US- 0242594-$ | US- 0246741-$ | US- 0251150-$ | US- 0269232-$ | US- 0274411-$ | US- 0297021-$ | US- 0297023-$ | US- 0314954-$ | US- 0325921-$ | US- 0329282-$ | US- 0332759-$ | US- 0340110-$ | US- 0353275-$ | US- 0359418-$ | US- 0375926-$ | US- 20150056351-$ | US- 20150079241-$ | US- 20150119220-$ | US- 20150128525-$ | US- 20150132441-$ | US-	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 10:26 PM

		20150157164-$ | US-20150158665-$ | US-20150158666-$ | US-20150166204-$ | US-20150173558-$ | US-20150175347-$ | US-20150201790-$ | US-20150239652-$ | US-20150246741-$ | US-20150274411-$ | US-20150297021-$ | US-20150297023-$ | US-20150314954-$ | US-20150329282-$ | US-20150353275-$ | US-20150375926-$ | US-20160001968-$ | US-20160037961-$ | US-20160045060-$ | US-20160058234-$ | US-20160066591-$ | US-20160075506-$ | US-20160194146-$ | US-20160207696-$ | US-20160242594-$ | US-20160251150-$ | US-20160325921-$ | US-20160332759-$ | US-20160340110-$ | US-20170020329-$ | US-20170027374-$ | US-20190359418-$ | US-20210086986-$ | US-20210269232-$).DID.					
L409	15	(US-0051478-$ | US-0156897-$ | US-2327021-$ | US-2399283-$ | US-2399290-$ | US-2400033-$ | US-2436389-$ | US-2531544-$ | US-2538256-$ | US-2661921-$ | US-2662069-$ | US-2662071-$ | US-2763746-$ | US-2784752-$ | US-2785843-$).DID.	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 10:30 PM
L410	170	"6440256"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 10:30 PM
L411	162	"6440256"	(USPAT)	AND	ON	ON	2022/03/23 10:30 PM
L412	165	"6589577"	(USPAT)	AND	ON	ON	2022/03/23 10:31 PM
L413	338	99/286,289R,295,302R,	(US-PGPUB; USPAT;	ADJ	ON	ON	2022/03/23

		307,323.ccls. and (capsule or cartridge) and (barcode or RFID or identif$4)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)				10:32 PM
L414	338	99/286,289R,295,302R, 307,323.ccls. and (capsule or cartridge) and (barcode or RFID or identif$4)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 10:32 PM
L415	432	B65D85/8043.cpc. and (capsule or cartridge) and (barcode or RFID or identif$4)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 10:33 PM
L416	158	A47J31/3628.cpc. and (capsule or cartridge) and (barcode or RFID or identif$4)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 10:34 PM
L417	940	A47J31/4492.cpc. and (capsule or cartridge) and (barcode or RFID or identif$4)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 10:36 PM
L418	228	B65D65/466.cpc. and (capsule or cartridge) and (barcode or RFID or identif$4)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 10:41 PM
L419	388	B65D2203/06.cpc. and (capsule or cartridge) and (barcode or RFID or identif$4)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 10:43 PM
L420	374	B65D2203/10.cpc. and (capsule or cartridge) and (barcode or RFID or identif$4)	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 10:47 PM
L421	327	"6607762"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 10:54 PM
L422	272	"6607762"	(USPAT)	AND	ON	ON	2022/03/23 10:55 PM
L423	260	"6645537"	(USPAT)	AND	ON	ON	2022/03/23 10:55 PM
L424	31	"6861086"	(USPAT)	AND	ON	ON	2022/03/23 10:56 PM
L425	84	"7946217"	(USPAT)	AND	ON	ON	2022/03/23 10:56 PM
L426	2	"20050051478"	(US-PGPUB)	AND	ON	ON	2022/03/23 10:56 PM
L427	13	"8512886"	(USPAT)	AND	ON	ON	2022/03/23 10:57 PM
L428	29	"8039029"	(USPAT)	AND	ON	ON	2022/03/23 10:57 PM
L429	14	"8491948"	(USPAT)	AND	ON	ON	2022/03/23 10:57 PM

L430	18	"8114461"	(USPAT)	AND	ON	ON	2022/03/23 10:58 PM
L431	15	"9204751"	(USPAT)	AND	ON	ON	2022/03/23 11:00 PM
L432	7	"20130156897"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 11:00 PM
L433	19	"9428328"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 11:01 PM
L434	160	"8361527"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 11:01 PM
L435	9	"20140127364"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 11:01 PM
L436	18	"20140141128"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 11:02 PM
L437	2	"20150020481"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 11:02 PM
L438	8	(US-20150157164-$ | US-20150119220-$ | US-9409704-$ | US-9969564-$ | US-20140161936-$ | US-20150353275-$ | US-20160075506-$ | US-20010181005-$ | US-20110064852-$).DID.	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 11:04 PM
L439	18	CA "2902231"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:04 PM
L440	10	(US-20150132441-$ | US-6527181-$ | US-20040115310-$ | US-5948455-$ | US-9409703-$ | US-9072402-$ | US-20130209619-$ | US-4860645-$ | US-4846052-$ | US-4676482-$).DID.	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 11:06 PM
L441	49	DE "1207866"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:06 PM
L442	22	DE "1221960"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:07 PM
L443	46	DE "3432339"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:07 PM
L444	31	DE "102006004329"	(US-PGPUB; USPAT; USOCR; FPRS; EPO;	AND	ON	ON	2022/03/23 11:08 PM

			JPO; DERWENT; IBM_TDB)				
L445	25	DE "102010027485"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:09 PM
L446	0	(DE-102010034206-$).DID.	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 11:10 PM
L447	20	DE "102010034206"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:11 PM
L448	114	DE "102011010534"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:11 PM
L449	27	DE "102012110446"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:13 PM
L450	18	DE "102014018470"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:13 PM
L451	23	"202006003115"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:14 PM
L452	11	EP "0272432"	(US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:15 PM
L453	8	EP "0272432"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:15 PM
L454	42	EP "0272922"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:15 PM
L455	1888664	EP "0334572"	(USPAT)	OR	ON	ON	2022/03/23 11:19 PM
L456	19	EP "0334572"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:22 PM
L457	34	EP "0455337"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:22 PM
L458	39	EP "0468078"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:23 PM
L459	91	EP "0468079"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:23 PM
L460	152	EP "0512468"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:23 PM

L461	2	EP "0569230"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:23 PM
L462	42	EP "0638486"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:23 PM
L463	14	EP "0656224"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:23 PM
L464	36	EP "0844195"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:24 PM
L465	110	EP "0859467"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:24 PM
L466	4	EP "0923865"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:24 PM
L467	24	EP "1129623"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:25 PM
L468	10	(US-5242702-$ | US-5601716-$ | US-5917165-$ | US-6451332-$ | US-20020088807-$ | US-7543527-$ | US-20020110626-$ | US-7552672-$ | US-20050160919-$ | US-20080148948-$).DID.	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 11:27 PM
L469	36	EP "1273528"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:29 PM
L470	33	"1344724"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:30 PM
L471	27	EP "1344724"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:30 PM
L472	25	EP "1471012"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:30 PM
L473	57	EP "1710173"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:31 PM
L474	17	EP "1772398"	(USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:34 PM
L475	10	(US-8101928-$ | US-20070148290-$ | US-8109200-$ | US-8088423-$ | US-	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 11:36 PM

		20090324791-$ | US-7543527-$ | US-20020110626-$ | US-7552672-$ | US-20050160919-$ | US-20080148948-$).DID.					
L476	11	(US-8101928-$ | US-20070148290-$ | US-8109200-$ | US-8088423-$ | US-20090324791-$ | US-20080024536-$ | US-20100050880-$ | US-8734881-$ | US-8257766-$ | US-20110041702-$ | US-8956672-$).DID.	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 11:37 PM
L477	23	EP "1772398"	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 11:37 PM
L478	17	EP "1772398"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:37 PM
L479	43	EP "1849718"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:38 PM
L480	66	EP "1859713"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:38 PM
L481	21	EP "1882432"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:38 PM
L482	25	EP "1892199"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:39 PM
L483	30	EP "2012994"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:39 PM
L484	68	EP "2218653"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:39 PM
L485	49	EP "2284102"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:40 PM
L486	32	EP "2412645"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:41 PM
L487	27	EP "2537778"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:41 PM
L488	57	FR "2556323"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:42 PM
L489	29	FR "2912124"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:42 PM
L490	12	GB "1402799"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:45 PM
L491	17	GB "2469874"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/23 11:47 PM
L492	12	(US-20110250333-$ | US-20100172951-$ | US-20130216663-$ | US-20120195155-$ | US-9434525-$ | US-	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 11:50 PM

		20130064937-$ | US-20210086986-$ | US-20140346022-$ | US-20190359418-$ | US-20210269232-$ | US-5194553-$ | US-20130122153-$).DID.					
L493	20	(US-9357791-$ | US-20030172813-$ | US-20030033938-$ | US-20040115310-$ | US-20050150391-$ | US-7408094-$ | US-7673558-$ | US-20100000667-$ | US-20100051532-$ | US-20130206011-$ | US-9277837-$ | US-9049958-$ | US-5460078-$ | US-20100303964-$ | US-20030121979-$ | US-20040089158-$ | US-20050266122-$ | US-20050266122-$ | US-20060228447-$ | US-20070157821-$ | US-20050183581-$).DID.	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/23 11:59 PM
L494	1	JP "02289207"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:00 AM
L495	17	JP "2001017094"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:01 AM
L496	5	JP "2001082699"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:02 AM
L497	5	JP "2001250161"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:02 AM
L498	6	JP "2002274000"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:03 AM
L499	4	JP "2002347852"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:03 AM
L500	11	JP "2003235733"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:04 AM
L501	0	JP H01233688	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:04 AM
L502	1	JP "01233688"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:04 AM
L503	3	JP "0394377"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:05 AM
L504	2	JP "04176311"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:05 AM
L505	5	JP "62130649"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:06 AM
L506	2	JP "62168512"	(FPRS; EPO; JPO;	AND	ON	ON	2022/03/24

			DERWENT; IBM_TDB)				12:07 AM
L507	4	KR "200435370"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:07 AM
L508	0	KR "1020050107747"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:08 AM
L509	0	KR "1020050107747"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:08 AM
L510	118	WO "0228241"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:09 AM
L511	19	WO "2004065258"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:10 AM
L512	62	WO "2005044067"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:10 AM
L513	13	WO "2005047111"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:11 AM
L514	13	WO "2006108578"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:11 AM
L515	12	WO "2007042486"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:11 AM
L516	65	WO "2007114685"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:12 AM
L517	20	WO "2007122144"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:13 AM
L518	17	WO "2007122208"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:14 AM
L519	92	WO "2008132571"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:15 AM
L520	17	WO "2009084061"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:15 AM
L521	15	WO "2009112291"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:15 AM
L522	18	WO "2009153161"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:15 AM
L523	49	WO "2010007633"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:16 AM
L524	17	WO "2010013146"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:16 AM
L525	60	WO "2010026053"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:16 AM
L526	22	WO "2010076048"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:17 AM
L527	12	WO "2010076263"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:17 AM
L528	11	WO "2010076761"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:17 AM
L529	15	WO "2010085824"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:18 AM
L530	19	WO "2010118545"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:18 AM

L531	11	WO "2010125326"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:18 AM
L532	12	WO "2010125329"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:19 AM
L533	24	(US-20120121765-$ | US-9359126-$ | US-20130101716-$ | US-20120100264-$ | US-20120126834-$ | US-20130084376-$ | US-20130149424-$ | US-20130084363-$ | US-9392902-$ | US-9290317-$ | US-20130209622-$ | US-9808112-$ | US-8916220-$ | US-20130327223-$ | US-9415931-$ | US-20140348984-$ | US-20140287104-$ | US-20140220191-$ | US-20140178538-$ | US-20140287105-$ | US-20160037961-$ | US-20150128525-$ | US-20150175347-$ | US-20150158666-$).DID.	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/24 12:23 AM
L534	34	WO "2011047836"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:25 AM
L535	46	WO "2011141532"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:26 AM
L536	14	WO "2012019902"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:26 AM
L537	8	WO "2014004231"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:27 AM
L538	8	WO "2014004564"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:27 AM
L539	8	(US-20150173558-$ | US-20150314954-$ | US-20150329282-$ | US-20150375926-$ | US-20160194146-$ | US-20160251150-$ | US-6025000-$ | US-5895672-$).DID.	(US-PGPUB; USPAT)	AND	ON	ON	2022/03/24 12:31 AM
L540	19	WO "2015075584"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:32 AM
L541	14	WO "2015107484"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:33 AM
L542	5	WO "2016077916"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:33 AM
L543	5	WO "9851396"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:34 AM

L544	21	WO "9903753"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/03/24 12:34 AM
L545	3	"10960453"	(US-PGPUB; USPAT)	OR	ON	ON	2022/04/28 11:12 PM
L546	4216623	WO "2014184651"	(US-PGPUB; USPAT)	OR	ON	ON	2022/04/28 11:12 PM
L547	14137152	WO "2014184651"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/04/28 11:12 PM
L548	8	WO "2014184651"	(FPRS; EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/04/28 11:13 PM
L549	4	"10273076"	(US-PGPUB; USPAT)	AND	ON	ON	2022/04/28 11:14 PM
L550	15	EP "2284101"	(US-PGPUB; USPAT)	AND	ON	ON	2022/04/28 11:14 PM
L551	7	EP "2284101"	(EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/04/28 11:15 PM
L552	2	WO "2015104171"	(EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/04/28 11:15 PM
L553	2	WO "2010066705"	(EPO; JPO; DERWENT; IBM_TDB)	AND	ON	ON	2022/04/28 11:16 PM
L554	3	"10131018"	(US-PGPUB; USPAT)	OR	ON	ON	2022/05/02 11:38 AM
L555	1	"20090007794"	(US-PGPUB; USPAT)	OR	ON	ON	2022/07/07 04:48 PM
L556	1	"20150250353"	(US-PGPUB; USPAT)	OR	ON	ON	2022/07/07 04:51 PM
L557	2	"20150056352"	(US-PGPUB; USPAT)	OR	ON	ON	2022/07/07 04:52 PM
L558	2	"20140057033"	(US-PGPUB; USPAT)	OR	ON	ON	2022/07/07 04:52 PM
L559	1	"14152478"	(US-PGPUB; USPAT)	OR	ON	ON	2022/07/07 04:53 PM
L560	691	((US-20110030563-A9 OR US-20100288131-A1 OR US-20100203208-A1 OR US-20100186599-A1 OR US-20100154651-A1 OR US-20100154647-A1 OR US-20100129512-A1 OR US-20100101428-A1 OR US-20100077928-A1 OR US-20100064899-A1 OR US-20100043646-A1 OR US-20100043645-A1 OR US-20100043644-A1 OR US-20100037779-A1 OR US-20090280219-A1 OR US-20090255410-A1	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/07/07 04:55 PM

		OR US-20090205503-A1 OR US-20090158938-A1 OR US-20090126577-A1 OR US-20090017177-A1 OR US-20090007796-A1 OR US-20090007794-A1 OR US-20080317931-A1 OR US-20080245236-A1 OR US-20080216666-A1 OR US-20080105131-A1 OR US-20070186784-A1 OR US-20070084352-A1 OR US-20070068395-A1 OR US-20100303964-A1 OR US-20070224319-A1 OR US-20060110507-A1 OR US-20060019000-A1 OR US-20120258210-A1 OR US-20140287105-A1 OR US-20140020565-A1 OR US-20100147156-A1 OR US-20140026761-A1 OR US-20150108011-A1 OR US-20070144355-A1 OR US-20150196159-A1 OR US-20140072676-A1 OR US-20050051478-A1 OR US-20190233200-A1 OR US-20190225414-A1 OR US-20190225413-A1 OR US-20190202629-A1 OR US-20190177079-A1 OR US-20190177078-A1 OR US-20190167031-A1 OR US-20140287099-A1 OR US-20190100376-A1 OR US-20190084758-A1 OR US-20190077588-A1 OR US-20160009486-A1 OR US-20150314955-A1 OR US-20190047771-A1 OR US-20190055084-A1 OR US-20190055083-A1 OR US-					

		20190047782-A1 OR US-20190016527-A1 OR US-20130340626-A1 OR US-20130017303-A1 OR US-20190002192-A1 OR US-20180370720-A1 OR US-20180346239-A1 OR US-20180332995-A1 OR US-20180325309-A1 OR US-20180325301-A1 OR US-20180319582-A1 OR US-20180305194-A1 OR US-20150017293-A1 OR US-20180303275-A1 OR US-20180297776-A1 OR US-20180297775-A1 OR US-20180297309-A1 OR US-20180290825-A1 OR US-20180290824-A1 OR US-20180273286-A1 OR US-20180257856-A1 OR US-20180237217-A1 OR US-20180220840-A1 OR US-20170143158-A1 OR US-20180215533-A1 OR US-20180206667-A1 OR US-20180201436-A1 OR US-20150246741-A1 OR US-20180178973-A1 OR US-20180178972-A1 OR US-20180162634-A1 OR US-20180148250-A1 OR US-20160137402-A1 OR US-20180134485-A1 OR US-20160198732-A1 OR US-20150158666-A1 OR US-20180125288-A1 OR US-20180116446-A1 OR US-20150360854-A1 OR US-20180084941-A1 OR US-20140272018-A1 OR US-20180044104-A1 OR US-20180037402-A1 OR US-20180029790-A1					

		OR US-20180016092-A1 OR US-20180002104-A1 OR US-20170362020-A1 OR US-20150246768-A1 OR US-20170355515-A1 OR US-20170334624-A1 OR US-20170334623-A1 OR US-20170327308-A1 OR US-20170326617-A1 OR US-20170320658-A1 OR US-20170313496-A1 OR US-20150245733-A1 OR US-20170305653-A1 OR US-20140127364-A1 OR US-20170280750-A1 OR US-20170275090-A1 OR US-20170275089-A1 OR US-20170275088-A1 OR US-20170275087-A1 OR US-20140141128-A1 OR US-20170258264-A1 OR US-20170174418-A1 OR US-20100203198-A1 OR US-20110189350-A1 OR US-20150150409-A1 OR US-20170120203-A1 OR US-20150344285-A1 OR US-20170081111-A1 OR US-20170071395-A1 OR US-20110303095-A1 OR US-20170050799-A1 OR US-20150257580-A1 OR US-20170042365-A1 OR US-20170036857-A1 OR US-20170036854-A1 OR US-20130236609-A1 OR US-20160288990-A1 OR US-20160345769-A1 OR US-20130059039-A1 OR US-20130078341-A1 OR US-20160332805-A1 OR US-20160325898-A1 OR US-20160280430-A1 OR US-					

		20160214787-A1 OR US-20160206133-A1 OR US-20160194147-A1 OR US-20160176624-A1 OR US-20150201791-A1 OR US-20160157660-A1 OR US-20160068334-A1 OR US-20160145037-A1 OR US-20160137401-A1 OR US-20160130076-A1 OR US-20160120356-A1 OR US-20160114967-A1 OR US-20160113435-A1 OR US-20160107831-A1 OR US-20160066591-A1 OR US-20160052706-A1 OR US-20160016727-A1 OR US-20160001968-A1 OR US-20160001903-A1 OR US-20150368033-A1 OR US-20150353275-A1 OR US-20150353272-A1 OR US-20150336736-A1 OR US-20150320254-A1 OR US-20150314954-A1 OR US-20150307266-A1 OR US-20150282663-A1 OR US-20150272379-A1 OR US-20150251847-A1 OR US-20150208852-A1 OR US-20150203285-A1 OR US-20110283890-A1 OR US-20150157164-A1 OR US-20150151903-A1 OR US-20150140182-A1 OR US-20150125576-A1 OR US-20140272016-A1 OR US-20120070543-A1 OR US-20150086680-A1 OR US-20120070551-A1 OR US-20150072053-A1 OR US-20150072052-A1 OR US-20150064324-A1 OR US-20150056351-A1					

		OR US-20150047509-A1 OR US-20150050391-A1 OR US-20140170271-A1 OR US-20150021209-A1 OR US-20150017290-A1 OR US-20140377413-A1 OR US-20140373725-A1 OR US-20120321756-A1 OR US-20140356484-A1 OR US-20140342060-A1 OR US-20140342059-A1 OR US-20140318380-A1 OR US-20140318379-A1 OR US-20140314919-A1 OR US-20140290494-A1 OR US-20120251671-A1 OR US-20140220189-A1 OR US-20140220190-A1 OR US-20140205721-A1 OR US-20140196608-A1 OR US-20140190863-A1 OR US-20140178538-A1 OR US-20140170269-A1 OR US-20140161940-A1 OR US-20140161936-A1 OR US-20090223375-A1 OR US-20140123859-A1 OR US-20140120217-A1 OR US-20140106036-A1 OR US-20100159109-A1 OR US-20140090564-A1 OR US-20140087028-A1 OR US-20140072677-A1 OR US-20140072675-A1 OR US-20140069280-A1 OR US-20140065269-A1 OR US-20120121779-A1 OR US-20140053735-A1 OR US-20140037802-A1 OR US-20140017359-A1 OR US-20140004231-A1 OR US-20130302476-A1 OR US-20100303965-A1 OR US-					

		20130270176-A1 OR US-20130259983-A1 OR US-20130247774-A1 OR US-20130243910-A1 OR US-20130216663-A1 OR US-20100132564-A1 OR US-20100239734-A1 OR US-20130180409-A1 OR US-20130164414-A1 OR US-20130146495-A1 OR US-20130139700-A1 OR US-20130139699-A1 OR US-20130125762-A1 OR US-20120058226-A1 OR US-20130122157-A1 OR US-20130115340-A1 OR US-20130105340-A1 OR US-20130095212-A1 OR US-20130064936-A1 OR US-20130045307-A1 OR US-20130040021-A1 OR US-20130025466-A1 OR US-20120328739-A1 OR US-20120308688-A1 OR US-20120276264-A1 OR US-20120269933-A1 OR US-20120251668-A1 OR US-20120240779-A1 OR US-20120207896-A1 OR US-20120207895-A1 OR US-20120201933-A1 OR US-20120201932-A1 OR US-20120196008-A1 OR US-20100003371-A1 OR US-20080187638-A1 OR US-20120171333-A1 OR US-20120121780-A1 OR US-20120118166-A1 OR US-20120097602-A1 OR US-20120052164-A1 OR US-20120052163-A1 OR US-20120015081-A1 OR US-20120015080-A1 OR US-20110305801-A1					

		OR US-20110297005-A1 OR US-20110283891-A1 OR US-20110274794-A1 OR US-20110142996-A1 OR US-20110097450-A1 OR US-20110076361-A1 OR US-20110073607-A1 OR US-20110064852-A1 OR US-20110045144-A1 OR US-20110041702-A1 OR US-20110020497-A1 OR US-20100307930-A1 OR US-20100297299-A1 OR US-20100206177-A1 OR US-20100180774-A1 OR US-20100178392-A1 OR US-20060196364-A1 OR US-20100154644-A1 OR US-20100108541-A1 OR US-20050150390-A1 OR US-20100062127-A1 OR US-20100047418-A1 OR US-20100005973-A1 OR US-20090320693-A1 OR US-20090320692-A1 OR US-20090263545-A1 OR US-20090235827-A1 OR US-20090211458-A1 OR US-20090110775-A1 OR US-20080257165-A1 OR US-20050115415-A1 OR US-20070181003-A1 OR US-20070148290-A1 OR US-20070062375-A1 OR US-20060236871-A1 OR US-20060174769-A1 OR US-20060065127-A1 OR US-20030172813-A1 OR US-20020078831-A1 OR US-20190208950-A1 OR US-20110168029-A1 OR US-20120285330-A1 OR US-20060107841-A1 OR US-					

		20020023543-A1 OR US-20120118880-A1 OR US-20110274802-A1 OR US-20110197771-A1 OR US-20110185910-A1 OR US-20110100229-A1 OR US-20090223373-A1 OR US-20040250686-A1 OR US-20020152895-A1 OR US-20020144604-A1 OR US-20020144603-A1 OR US-20020144602-A1 OR US-20150230652-A1 OR US-20150027318-A1 OR US-20210261280-A1 OR US-20210253334-A1 OR US-20200253413-A1 OR US-20200231370-A1 OR US-20200189772-A1 OR US-20170043943-A1 OR US-20200017288-A1 OR US-20190047783-A1 OR US-20180362198-A1 OR US-20180242776-A1 OR US-20170361961-A1 OR US-20170360239-A1 OR US-20170360057-A1 OR US-20160311610-A1 OR US-20160311609-A1 OR US-20160280453-A1 OR US-20120090475-A1 OR US-20160145038-A1 OR US-20150158609-A1 OR US-20110117248-A1 OR US-20210331864-A1 OR US-20200121115-A1 OR US-20200047984-A1 OR US-20190328170-A1 OR US-20190313835-A1 OR US-20130129870-A1 OR US-20150201790-A1 OR US-20170355514-A1 OR US-20170319001-A1 OR US-20170295988-A1					

		OR US-20160157666-A1 OR US-20120100259-A1 OR US-20150238044-A1 OR US-20110259204-A1 OR US-20150068405-A1 OR US-20150056352-A1 OR US-20150001100-A1 OR US-20140318381-A1 OR US-20140305315-A1 OR US-20140186498-A1 OR US-20130186282-A1 OR US-20140318378-A1 OR US-20140287104-A1 OR US-20130133522-A1 OR US-20130118360-A1 OR US-20050223904-A1 OR US-20090183640-A1 OR US-20090175986-A1 OR US-20040216616-A1 OR US-20130129876-A1 OR US-20100078480-A1 OR US-20020048621-A1 OR US-20140242239-A1 OR US-20190023483-A1 OR US-20160192807-A1 OR US-20160176625-A1 OR US-20160174757-A1 OR US-20150327717-A1 OR US-20160051080-A1 OR US-20160045061-A1 OR US-20160045059-A1 OR US-20150297021-A1 OR US-20150230654-A1 OR US-20150225169-A1 OR US-20150183577-A1 OR US-20150164262-A1 OR US-20150135967-A1 OR US-20150135962-A1 OR US-20150082989-A1 OR US-20150040769-A1 OR US-20120285334-A1 OR US-20140224130-A1 OR US-20140174300-A1 OR US-					

		20140130680-A1 OR US-20140076169-A1 OR US-20130344206-A1 OR US-20130312619-A1 OR US-20130095214-A1 OR US-20130064937-A1 OR US-20130014648-A1 OR US-20120097041-A1 OR US-20110262601-A1 OR US-20110189362-A1 OR US-20100282087-A1 OR US-20100126354-A1 OR US-20040005384-A1 OR US-20020088807-A1 OR US-20080026121-A1 OR US-20050266122-A1 OR US-20050150391-A1 OR US-20110005399-A1 OR US-20130055903-A1 OR US-20120295234-A1 OR US-20150056340-A1 OR US-20150056331-A1 OR US-20150010680-A9 OR US-20140302204-A1 OR US-20130327223-A1 OR US-20130230627-A1 OR US-20130209618-A1 OR US-20130136828-A1 OR US-20130129872-A1 OR US-20190359418-A1 OR US-20170020329-A1 OR US-20160340110-A1 OR US-20160332759-A1 OR US-20150175347-A1 OR US-20160251150-A1 OR US-20160242594-A1 OR US-20150239652-A1 OR US-20160075506-A1 OR US-20160037961-A1 OR US-20150329282-A1 OR US-20200231372-A1 OR US-20190382191-A1 OR US-20210147138-A1 OR US-20180354713-A1					

		OR US-20160302613-A1 OR US-20150072049-A1).did. AND PGPB.dbnm.) OR ((US-8304006-B2 OR US-8220382-B2 OR US-8202560-B2 OR US-8161868-B2 OR US-8161866-B2 OR US-8147887-B2 OR US-7993691-B2 OR US-7946217-B2 OR US-7930972-B2 OR US-7856921-B2 OR US-7854192-B2 OR US-7836819-B2 OR US-7815953-B2 OR US-7703381-B2 OR US-7624673-B2 OR US-7604826-B2 OR US-7279188-B2 OR US-5897899-A OR US-5826492-A OR US-5762987-A OR US-5649472-A OR US-5402707-A OR US-5398595-A OR US-5327815-A OR US-4846052-A OR US-5325765-A OR US-6079315-A OR US-6182554-B1 OR US-6644173-B2 OR US-7490542-B2 OR US-4136202-A OR US-7552672-B2 OR US-8640604-B2 OR US-8322271-B2 OR US-7856920-B2 OR US-6606938-B2 OR US-8846120-B2 OR US-6672200-B2 OR US-6666130-B2 OR US-6142063-A OR US-6082247-A OR US-3615708-A OR US-2968560-A OR US-9486108-B1 OR US-11001437-B2 OR US-11001436-B2 OR US-11001433-B2 OR US-10144579-B2 OR US-9764891-B1 OR US-5472719-A OR US-5242702-A OR US-9232871-B2 OR US-9463921-B2 OR US-6832542-B2 OR US-					

		8720320-B1 OR US-8794125-B1 OR US-7063238-B2 OR US-8561524-B2 OR US-7836820-B2 OR US-5656311-A OR US-9402501-B1 OR US-11166587-B2 OR US-8927037-B2 OR US-7681492-B2 OR US-6189438-B1 OR US-5473973-A OR US-4882982-A OR US-10994923-B2 OR US-9320385-B2 OR US-7444925-B2 OR US-8087347-B2 OR US-8695484-B2 OR US-11254491-B2 OR US-10870531-B2 OR US-8424447-B2 OR US-5460078-A OR US-4867993-A OR US-9428328-B2 OR US-9415931-B2 OR US-9409704-B2 OR US-9392902-B2 OR US-8512886-B2 OR US-8039029-B2 OR US-8491948-B2 OR US-9434525-B2 OR US-9277837-B2 OR US-10960453-B2 OR US-D889970-S OR US-D889265-S OR US-10273076-B2 OR US-11198557-B2 OR US-10926946-B2 OR US-10835074-B2 OR US-10730691-B2 OR US-10143330-B2 OR US-9783361-B2 OR US-9540167-B2 OR US-9072402-B2).did. AND USPT.dbnm.) OR ((WO-02081337-A1 OR WO-2010076698-A1 OR JP-4836776-B2 OR CA-2765371-A1 OR CA-2819140-A1 OR EP-2520202-A1 OR CA-2811153-A1 OR EP-2647317-A1 OR CA-2521063-A1 OR FR-2993869-A1 OR WO-2008113779-A2 OR EP-1864917-A1 OR WO-2012011053-A1					

		OR WO-2008125256-A1 OR WO-2014041419-A1 OR WO-2014033339-A1 OR EP-1992575-A1 OR EP-1500357-A1 OR WO-2009050540-A1 OR EP-2374733-A1 OR EP-2345602-A1 OR EP-1364605-A1 OR WO-2015136433-A1 OR EP-2612579-A1 OR WO-2012076135-A1 OR EP-2409608-A1 OR WO-2013079814-A1 OR KR-200450676-Y1 OR CA-2526785-A1 OR EP-1775234-A1 OR WO-2006045537-A1 OR WO-2007114685-A1 OR WO-2008132571-A1 OR WO-2008117329-A1 OR WO-03059778-A2 OR WO-2004064582-A2 OR CH-711427-A2 OR EP-3181484-A1 OR WO-2015117892-A1 OR GB-2520492-A OR EP-2966006-A1 OR GB-2530062-A OR CA-2701826-C OR EP-2868598-A1 OR EP-2298671-A1 OR GB-2528289-A OR CA-2878097-A1 OR CA-2927665-A1 OR DE-102010044251-A1 OR DE-102012110446-A1 OR DE-1207866-B OR GB-1402799-A OR WO-2010085824-A1).did. AND FPRS.dbnm.) OR ((EP-1775234-A1 OR WO-2006030461-A1 OR JP-2000355375-A OR US-20050084569-A1 OR GB-2531687-A OR GB-2530680-A OR GB-2530062-A OR WO-2015177591-A2 OR WO-2015128799-A1 OR ES-2538740-A1 OR EP-2886490-A1 OR WO-2014191044-A1 OR WO-2014188285-A1 OR DE-					

		102012223291-A1 OR WO-2014061045-A1 OR FR-2993869-A1 OR EP-2647317-A1 OR ES-2398277-A1 OR WO-2012150542-A1 OR WO-2012123106-A1 OR WO-2012110323-A1 OR WO-2012100836-A1 OR WO-2012100976-A1 OR WO-2013135937-A2 OR WO-2012072509-A1 OR WO-2012042487-A1 OR WO-2012034819-A1 OR FR-2962893-A1 OR WO-2011159162-A1 OR WO-2011159163-A1 OR WO-2013060918-A1 OR EP-2374733-A1 OR WO-2010137953-A1 OR WO-2010118543-A1 OR WO-2009103592-A1 OR WO-2009084059-A1 OR WO-2009050540-A1 OR WO-2008148834-A1 OR EP-1992575-A1 OR WO-2008132571-A1 OR WO-2008125256-A1 OR WO-2008113779-A2 OR WO-02081337-A1 OR WO-2015136433-A1 OR US-20150374165-A1 OR WO-2010137947-A1 OR EP-1500357-A1 OR US-20140072675-A1 OR WO-2011000725-A1 OR WO-2011000723-A2 OR US-20170027374-A1 OR WO-2015091301-A1 OR WO-2015055849-A1 OR DE-102010044251-A1 OR WO-2011141532-A1 OR EP-2345351-A1 OR EP-2345352-A1 OR WO-2011000724-A1 OR WO-2014001563-A1 OR WO-2014001564-A1 OR					

		GB-2569622-A OR GB-2569624-A OR US-20180354713-A1 OR WO-2012004133-A1 OR DE-102010027485-A1 OR JP-2001250161-A OR JP-2003235733-A OR WO-2015075584-A1 OR WO-2014184651-A1 OR EP-2284101-A1 OR WO-2015104171-A1 OR WO-2010066705-A1).did. AND DWPI.dbnm.) OR ((US-2968560-A).did. AND USOC.dbnm.) OR ((EP-1775234-A1 OR WO-2008132571-A1 OR WO-2008125256-A1 OR WO-2007114685-A1 OR WO-2006045537-A1 OR EP-1500357-A1 OR DE-3432339-A1 OR WO-2010066705-A1).did. AND EPAB.dbnm.) OR ((JP-2000355375-A OR JP-2012005818-A OR JP-2005211659-A OR JP-01310612-A OR JP-02289207-A).did. AND JPAB.dbnm.)					
L561	46	"7028604"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/07/07 04:56 PM
L562	45	("2968560" | "3403617" | "3408921" | "3596588" | "3607297" | "5472719" | "5762987").pn. OR ("7028604").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/07/07 04:57 PM

L563	9	"7946271"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/07/07 05:02 PM
L564	3	"9248955"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/07/07 05:02 PM
L565	2	"14939621"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/07/07 05:03 PM
L566	2	"20050129809"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/07/07 05:04 PM
L567	10	"7883733"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/07/07 05:04 PM
L568	1	"9144341"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/07/07 05:04 PM
L569	0	"201302239820"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/07/07 05:05 PM
L570	0	"20132239820"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/07/07 05:05 PM
L571	0	"2013239820"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/07/07 05:05 PM
L572	2	"20110274794"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/07/07 05:05 PM
L573	698	((US-20110030563-A9 OR US-20100288131-A1 OR US-20100203208-A1 OR US-20100186599-A1 OR US-20100154651-A1 OR US-20100154647-A1 OR US-20100129512-A1 OR US-20100101428-A1 OR US-20100077928-A1 OR US-20100064899-A1 OR US-20100043646-A1 OR US-20100043645-A1 OR US-20100043644-A1 OR US-20100037779-A1 OR US-20090280219-A1 OR US-20090255410-A1 OR US-20090205503-A1 OR US-20090158938-A1 OR US-20090126577-A1 OR US-20090017177-A1 OR US-20090007796-A1 OR US-20090007794-A1 OR US-20080317931-A1 OR US-20080245236-A1 OR US-20080216666-A1 OR US-20080105131-A1 OR US-	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/07/07 05:07 PM

		20070186784-A1 OR US-20070084352-A1 OR US-20070068395-A1 OR US-20100303964-A1 OR US-20070224319-A1 OR US-20060110507-A1 OR US-20060019000-A1 OR US-20120258210-A1 OR US-20140287105-A1 OR US-20140020565-A1 OR US-20100147156-A1 OR US-20140026761-A1 OR US-20150108011-A1 OR US-20070144355-A1 OR US-20150196159-A1 OR US-20140072676-A1 OR US-20050051478-A1 OR US-20190233200-A1 OR US-20190225414-A1 OR US-20190225413-A1 OR US-20190202629-A1 OR US-20190177079-A1 OR US-20190177078-A1 OR US-20190167031-A1 OR US-20140287099-A1 OR US-20190100376-A1 OR US-20190084758-A1 OR US-20190077588-A1 OR US-20160009486-A1 OR US-20150314955-A1 OR US-20190047771-A1 OR US-20190055084-A1 OR US-20190055083-A1 OR US-20190047782-A1 OR US-20190016527-A1 OR US-20130340626-A1 OR US-20130017303-A1 OR US-20190002192-A1 OR US-20180370720-A1 OR US-20180346239-A1 OR US-20180332995-A1 OR US-20180325309-A1 OR US-20180325301-A1 OR US-20180319582-A1					

		OR US-20180305194-A1 OR US-20150017293-A1 OR US-20180303275-A1 OR US-20180297776-A1 OR US-20180297775-A1 OR US-20180297309-A1 OR US-20180290825-A1 OR US-20180290824-A1 OR US-20180273286-A1 OR US-20180257856-A1 OR US-20180237217-A1 OR US-20180220840-A1 OR US-20170143158-A1 OR US-20180215533-A1 OR US-20180206667-A1 OR US-20180201436-A1 OR US-20150246741-A1 OR US-20180178973-A1 OR US-20180178972-A1 OR US-20180162634-A1 OR US-20180148250-A1 OR US-20160137402-A1 OR US-20180134485-A1 OR US-20160198732-A1 OR US-20150158666-A1 OR US-20180125288-A1 OR US-20180116446-A1 OR US-20150360854-A1 OR US-20180084941-A1 OR US-20140272018-A1 OR US-20180044104-A1 OR US-20180037402-A1 OR US-20180029790-A1 OR US-20180016092-A1 OR US-20180002104-A1 OR US-20170362020-A1 OR US-20150246768-A1 OR US-20170355515-A1 OR US-20170334624-A1 OR US-20170334623-A1 OR US-20170327308-A1 OR US-20170326617-A1 OR US-20170320658-A1 OR US-					

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		20110020497-A1 OR US-20100307930-A1 OR US-20100297299-A1 OR US-20100206177-A1 OR US-20100180774-A1 OR US-20100178392-A1 OR US-20060196364-A1 OR US-20100154644-A1 OR US-20100108541-A1 OR US-20050150390-A1 OR US-20100062127-A1 OR US-20100047418-A1 OR US-20100005973-A1 OR US-20090320693-A1 OR US-20090320692-A1 OR US-20090263545-A1 OR US-20090235827-A1 OR US-20090211458-A1 OR US-20090110775-A1 OR US-20080257165-A1 OR US-20050115415-A1 OR US-20070181003-A1 OR US-20070148290-A1 OR US-20070062375-A1 OR US-20060236871-A1 OR US-20060174769-A1 OR US-20060065127-A1 OR US-20030172813-A1 OR US-20020078831-A1 OR US-20190208950-A1 OR US-20110168029-A1 OR US-20120285330-A1 OR US-20060107841-A1 OR US-20020023543-A1 OR US-20120118880-A1 OR US-20110274802-A1 OR US-20110197771-A1 OR US-20110185910-A1 OR US-20110100229-A1 OR US-20090223373-A1 OR US-20040250686-A1 OR US-20020152895-A1 OR US-20020144604-A1 OR US-20020144603-A1					

		OR US-20020144602-A1 OR US-20150230652-A1 OR US-20150027318-A1 OR US-20210261280-A1 OR US-20210253334-A1 OR US-20200253413-A1 OR US-20200231370-A1 OR US-20200189772-A1 OR US-20170043943-A1 OR US-20200017288-A1 OR US-20190047783-A1 OR US-20180362198-A1 OR US-20180242776-A1 OR US-20170361961-A1 OR US-20170360239-A1 OR US-20170360057-A1 OR US-20160311610-A1 OR US-20160311609-A1 OR US-20160280453-A1 OR US-20120090475-A1 OR US-20160145038-A1 OR US-20150158609-A1 OR US-20110117248-A1 OR US-20210331864-A1 OR US-20200121115-A1 OR US-20200047984-A1 OR US-20190328170-A1 OR US-20190313835-A1 OR US-20130129870-A1 OR US-20150201790-A1 OR US-20170355514-A1 OR US-20170319001-A1 OR US-20170295988-A1 OR US-20160157666-A1 OR US-20120100259-A1 OR US-20150238044-A1 OR US-20110259204-A1 OR US-20150068405-A1 OR US-20150056352-A1 OR US-20150001100-A1 OR US-20140318381-A1 OR US-20140305315-A1 OR US-20140186498-A1 OR US-					

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		OR US-20100126354-A1 OR US-20040005384-A1 OR US-20020088807-A1 OR US-20080026121-A1 OR US-20050266122-A1 OR US-20050150391-A1 OR US-20110005399-A1 OR US-20130055903-A1 OR US-20120295234-A1 OR US-20150056340-A1 OR US-20150056331-A1 OR US-20150010680-A9 OR US-20140302204-A1 OR US-20130327223-A1 OR US-20130230627-A1 OR US-20130209618-A1 OR US-20130136828-A1 OR US-20130129872-A1 OR US-20190359418-A1 OR US-20170020329-A1 OR US-20160340110-A1 OR US-20160332759-A1 OR US-20150175347-A1 OR US-20160251150-A1 OR US-20160242594-A1 OR US-20150239652-A1 OR US-20160075506-A1 OR US-20160037961-A1 OR US-20150329282-A1 OR US-20200231372-A1 OR US-20190382191-A1 OR US-20210147138-A1 OR US-20180354713-A1 OR US-20160302613-A1 OR US-20150072049-A1 OR US-20170135516-A1 OR US-20050129809-A1).did. AND PGPB.dbnm.) OR ((US-8304006-B2 OR US-8220382-B2 OR US-8202560-B2 OR US-8161868-B2 OR US-8161866-B2 OR US-8147887-B2 OR US-7993691-B2 OR US-					

		7946217-B2 OR US- 7930972-B2 OR US- 7856921-B2 OR US- 7854192-B2 OR US- 7836819-B2 OR US- 7815953-B2 OR US- 7703381-B2 OR US- 7624673-B2 OR US- 7604826-B2 OR US- 7279188-B2 OR US- 5897899-A OR US- 5826492-A OR US- 5762987-A OR US- 5649472-A OR US- 5402707-A OR US- 5398595-A OR US- 5327815-A OR US- 4846052-A OR US- 5325765-A OR US- 6079315-A OR US- 6182554-B1 OR US- 6644173-B2 OR US- 7490542-B2 OR US- 4136202-A OR US- 7552672-B2 OR US- 8640604-B2 OR US- 8322271-B2 OR US- 7856920-B2 OR US- 6606938-B2 OR US- 8846120-B2 OR US- 6672200-B2 OR US- 6666130-B2 OR US- 6142063-A OR US- 6082247-A OR US- 3615708-A OR US- 2968560-A OR US- 9486108-B1 OR US- 11001437-B2 OR US- 11001436-B2 OR US- 11001433-B2 OR US- 10144579-B2 OR US- 9764891-B1 OR US- 5472719-A OR US- 5242702-A OR US- 9232871-B2 OR US- 9463921-B2 OR US- 6832542-B2 OR US- 8720320-B1 OR US- 8794125-B1 OR US- 7063238-B2 OR US- 8561524-B2 OR US- 7836820-B2 OR US- 5656311-A OR US- 9402501-B1 OR US- 11166587-B2 OR US- 8927037-B2 OR US- 7681492-B2 OR US- 6189438-B1 OR US-					

		5473973-A OR US-4882982-A OR US-10994923-B2 OR US-9320385-B2 OR US-7444925-B2 OR US-8087347-B2 OR US-8695484-B2 OR US-11254491-B2 OR US-10870531-B2 OR US-8424447-B2 OR US-5460078-A OR US-4867993-A OR US-9428328-B2 OR US-9415931-B2 OR US-9409704-B2 OR US-9392902-B2 OR US-8512886-B2 OR US-8039029-B2 OR US-8491948-B2 OR US-9434525-B2 OR US-9277837-B2 OR US-10960453-B2 OR US-D889970-S OR US-D889265-S OR US-10273076-B2 OR US-11198557-B2 OR US-10926946-B2 OR US-10835074-B2 OR US-10730691-B2 OR US-10143330-B2 OR US-9783361-B2 OR US-9540167-B2 OR US-9072402-B2 OR US-7028604-B2 OR US-9248955-B2 OR US-7883733-B2 OR US-9144341-B2).did. AND USPT.dbnm.) OR ((WO-02081337-A1 OR WO-2010076698-A1 OR JP-4836776-B2 OR CA-2765371-A1 OR CA-2819140-A1 OR EP-2520202-A1 OR CA-2811153-A1 OR EP-2647317-A1 OR CA-2521063-A1 OR FR-2993869-A1 OR WO-2008113779-A2 OR EP-1864917-A1 OR WO-2012011053-A1 OR WO-2008125256-A1 OR WO-2014041419-A1 OR WO-2014033339-A1 OR EP-1992575-A1 OR EP-1500357-A1 OR WO-2009050540-A1						

		OR EP-2374733-A1 OR EP-2345602-A1 OR EP-1364605-A1 OR WO-2015136433-A1 OR EP-2612579-A1 OR WO-2012076135-A1 OR EP-2409608-A1 OR WO-2013079814-A1 OR KR-200450676-Y1 OR CA-2526785-A1 OR EP-1775234-A1 OR WO-2006045537-A1 OR WO-2007114685-A1 OR WO-2008132571-A1 OR WO-2008117329-A1 OR WO-03059778-A2 OR WO-2004064582-A2 OR CH-711427-A2 OR EP-3181484-A1 OR WO-2015117892-A1 OR GB-2520492-A OR EP-2966006-A1 OR GB-2530062-A OR CA-2701826-C OR EP-2868598-A1 OR EP-2298671-A1 OR GB-2528289-A OR CA-2878097-A1 OR CA-2927665-A1 OR DE-102010044251-A1 OR DE-102012110446-A1 OR DE-1207866-B OR GB-1402799-A OR WO-2010085824-A1).did. AND FPRS.dbnm.) OR ((EP-1775234-A1 OR WO-2006030461-A1 OR JP-2000355375-A OR US-20050084569-A1 OR GB-2531687-A OR GB-2530680-A OR GB-2530062-A OR WO-2015177591-A2 OR WO-2015128799-A1 OR ES-2538740-A1 OR EP-2886490-A1 OR WO-2014191044-A1 OR WO-2014188285-A1 OR DE-102012223291-A1 OR WO-2014061045-A1 OR FR-2993869-A1 OR EP-2647317-A1 OR ES-2398277-A1 OR WO-2012150542-A1 OR WO-2012123106-					

		A1 OR WO-2012110323-A1 OR WO-2012100836-A1 OR WO-2012100976-A1 OR WO-2013135937-A2 OR WO-2012072509-A1 OR WO-2012042487-A1 OR WO-2012034819-A1 OR FR-2962893-A1 OR WO-2011159162-A1 OR WO-2011159163-A1 OR WO-2013060918-A1 OR EP-2374733-A1 OR WO-2010137953-A1 OR WO-2010118543-A1 OR WO-2009103592-A1 OR WO-2009084059-A1 OR WO-2009050540-A1 OR WO-2008148834-A1 OR EP-1992575-A1 OR WO-2008132571-A1 OR WO-2008125256-A1 OR WO-2008113779-A2 OR WO-02081337-A1 OR WO-2015136433-A1 OR US-20150374165-A1 OR WO-2010137947-A1 OR EP-1500357-A1 OR US-20140072675-A1 OR WO-2011000725-A1 OR WO-2011000723-A2 OR US-20170027374-A1 OR WO-2015091301-A1 OR WO-2015055849-A1 OR DE-102010044251-A1 OR WO-2011141532-A1 OR EP-2345351-A1 OR EP-2345352-A1 OR WO-2011000724-A1 OR WO-2014001563-A1 OR WO-2014001564-A1 OR GB-2569622-A OR GB-2569624-A OR US-20180354713-A1 OR WO-2012004133-A1 OR DE-102010027485-A1 OR JP-2001250161-A OR JP-2003235733-					

		A OR WO-2015075584-A1 OR WO-2014184651-A1 OR EP-2284101-A1 OR WO-2015104171-A1 OR WO-2010066705-A1 OR EP-1295554-A1).did. AND DWPI.dbnm.) OR ((US-2968560-A).did. AND USOC.dbnm.) OR ((EP-1775234-A1 OR WO-2008132571-A1 OR WO-2008125256-A1 OR WO-2007114685-A1 OR WO-2006045537-A1 OR EP-1500357-A1 OR DE-3432339-A1 OR WO-2010066705-A1).did. AND EPAB.dbnm.) OR ((JP-2000355375-A OR JP-2012005818-A OR JP-2005211659-A OR JP-01310612-A OR JP-02289207-A).did. AND JPAB.dbnm.)					
L574	36	99/286,289R,295,302R,307,323.ccls. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(USPAT)	ADJ	ON	ON	2022/07/11 10:36 AM
L575	20	B65D85/8061.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(USPAT)	ADJ	ON	ON	2022/07/11 10:43 AM
L576	35	B65D85/8058.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(USPAT)	ADJ	ON	ON	2022/07/11 10:55 AM
L577	27	A47J31/3628.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode)	(USPAT)	ADJ	ON	ON	2022/07/11 10:56 AM

		AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)					
L578	26	A47J31/3638.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(USPAT)	ADJ	ON	ON	2022/07/11 10:57 AM
L579	134	A47J31/407.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(USPAT)	ADJ	ON	ON	2022/07/11 10:58 AM
L580	8	("6698333" | "7210401" | "7578230" | "7640845" | "8459179" | "8919240" | "9198533" | "20020048621").pn. OR ("10076208").urpn. AND (PGPB | USPT | USOC).dbnm.	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2022/07/11 11:11 AM
L581	48	B65D85/8043.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(USPAT)	ADJ	ON	ON	2022/07/11 11:13 AM
L582	20	B65D2203/06.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(USPAT)	ADJ	ON	ON	2022/07/11 11:17 AM
L583	76	("4207989" | "4215797" | "4557414" | "4969965" | "4977772" | "5242630" | "5284435" | "5405675" | "5651235" | "5685189" | "5722319" | "5840189" | "5887470" | "6217811" | "6440530" | "6540497" | "6739500" | "6761848" | "6981177" | "7121420" | "7140812" | "7235197" | "7510675" | "7832188"	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2022/07/11 11:17 AM

		| "8012521" | "8220704" | "8282382" | "8322177" | "8459087" | "8535743" | "8613879" | "20030185947" | "20030235660" | "20040010998" | "20040012109" | "20040058129" | "20040146602" | "20040185152" | "20040185154" | "20040185155" | "20040185156" | "20040262255" | "20050035011" | "20050123724" | "20050151300" | "20050209076" | "20050247713" | "20070039433" | "20070062396" | "20070241473" | "20080057312" | "20080072536" | "20080118720" | "20090041626" | "20090109518" | "20090134547" | "20090165876" | "20090166562" | "20100001014" | "20100078480" | "20100116775" | "20100200449" | "20100213193" | "20100287893" | "20110024310" | "20110028293" | "20120045554" | "20120064293" | "20120225171" | "20120305584" | "20130062364" | "20130071589" | "20130139190" | "20130202826" | "20130333575" | "20150041470").pn. OR ("11142379").urpn. AND (PGPB | USPT | USOC).dbnm.					
L584	40	B65D2203/10.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner)	(USPAT)	ADJ	ON	ON	2022/07/11 11:22 AM

		AND (seal OR (O adj3 ring) OR gasket)					
L585	0	"17547363"	(USPAT)	ADJ	ON	ON	2022/07/11 01:07 PM
L586	3	"17547363"	(US-PGPUB; USPAT)	ADJ	ON	ON	2022/07/11 01:08 PM
L587	101	99/286,289R,295,302R, 307,323.ccls. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2022/07/11 01:12 PM
L588	67	B65D85/8061.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2022/07/11 01:12 PM
L589	100	B65D85/8058.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2022/07/11 01:13 PM
L590	76	A47J31/3628.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2022/07/11 01:14 PM
L591	68	A47J31/3638.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2022/07/11 01:17 PM
L592	371	A47J31/407.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2022/07/11 01:17 PM

L593	256	A47J31/4492.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2022/07/11 01:35 PM
L594	134	B65D85/8043.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2022/07/11 01:45 PM
L595	50	B65D65/466.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2022/07/11 01:46 PM
L596	62	B65D2203/06.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2022/07/11 01:48 PM
L597	102	B65D2203/10.cpc. AND (capsule OR cartridge OR pod) AND (identif$4 OR RFID OR barcode) AND (sensor OR detector OR scanner) AND (seal OR (O adj3 ring) OR gasket)	(US-PGPUB; USPAT; USOCR)	ADJ	ON	ON	2022/07/11 01:49 PM

PE2E SEARCH - Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
N141	33	"99".clas. and ((capsule) and (piercing)).clm.	(USPAT)	OR	OFF	OFF	2018/10/17 01:30 PM
N142	74	"99".clas. and ((capsule or cartridge) and (piercing)).clm.	(USPAT)	OR	OFF	OFF	2018/10/17 01:58 PM
N145	33	99/286,289R,295,302R, 307,323.ccls. and ((capsule) and (piercing)).clm.	(USPAT)	AND	ON	ON	2018/10/19 10:49 AM

N146	0	"13326291"	(USPAT)	AND	ON	ON	2018/10/19 11:13 AM
N344	124	"99".clas. and ((coffee) and (chamber or receptacle) and (spring)).clm.	(USPAT)	OR	OFF	OFF	2021/12/13 01:57 PM
N346	138	"99".clas. and ((coffee) and (chamber or receptacle or holder) and (spring)).clm.	(USPAT)	OR	OFF	OFF	2021/12/22 09:44 AM
N347	46	"4882982"	(USPAT)	OR	OFF	OFF	2021/12/22 10:11 AM
N348	0	"16900462"	(USPAT)	OR	OFF	OFF	2021/12/22 10:45 AM

Filed via EFS @ USPTO.gov on May 25, 2022
Practitioner's Docket No. 1859.029USC12

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Marc Krüger	Art Unit: 3761
Application No.: 17/547,363	Examiner: Chou, Jimmy
Filed: December 10, 2021	Conf. No.: 6426

For: PORTION CAPSULE HAVING AN IDENTIFIER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Applicant submits this statement in accordance with its duty of disclosure under 37 C.F.R. §§ 1.56, 1.97, and 1.98. The submission made herewith is in no way intended as an admission that the cited items constitute material prior art or otherwise would render the claims unpatentable in any way. The submission also is in no way intended to substitute for the Examiner's own independent investigation.

Copies of foreign patent documents and non-patent literature, together with a listing on form PTO/SB/08a are submitted herewith.

This Information Disclosure Statement is being submitted after the mailing of a first Office Action and before a Notice of Allowance. A fee of $260.00 is believed to be due; however, if any additional fee is due with the filing of this paper, please charge the amount to Deposit Account 50-1097.

Date: May 25, 2022

/Paul J. Palinski/

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29 W. Lawrence Street - Suite 210
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	3761
	Examiner Name	Chou, Jimmy /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

U.S. PATENTS					
Examiner Initials*	Cite No.	Patent Number	Kind Code	Issue Date	Name of Patentee or Applicant of cited Document
	1.	D734,665	S	07/21/2015	Cahen et al.
	2.	3,744,026		07/03/1973	Wolff
	3.	6,079,315	A	06/27/2000	Beaulieu et al.
	4.	7,412,921	B2	08/19/2008	Hu et al.
	5.	9,756,974	B2	09/12/2017	Rivera
U.S. PATENT APPLICATION PUBLICATIONS					
Examiner Initials*	Cite No.	Publication Number	Kind Code	Publication Date	Name of Patentee or Applicant of cited Document
	1.	2002/0144603	A1	10/10/2002	Taylor
	2.	2010/0078480	A1	04/01/2010	Aker
	3.	2010/0129512	A1	05/27/2010	Accursi
	4.	2013/0014648	A1	01/17/2013	Rognon et al.
	5.	2013/0236609	A1	09/12/2013	Magniet et al.
	6.	2014/0242239	A1	08/28/2014	Boggavarapu
	7.	2015/0017293	A1	01/15/2015	Carr et al.
	8.	2015/0047509	A1	02/19/2015	Trombetta et al.
	9.	2015/0225169	A1	08/13/2015	Jarisch
	10.	2015/0368033	A1	12/24/2015	Krug et al.
	11.	2016/0130076	A1	05/12/2016	Jarisch
	12.	2016/0174757	A1	06/23/2016	Rivera
	13.	2017/0071395	A1	03/16/2017	Krüger et al.
	14.	2017/0295988	A1	10/19/2017	Chung
	15.	2018/0325309	A1	11/15/2018	Short et al.
	16.	2019/0055084	A1	02/21/2019	D'Urso

FOREIGN PATENT DOCUMENTS							
Examiner Initial*	Cite No.	Foreign Document Number	Country Code	Kind Code	Publication Date	Name of Patentee or Applicant of cited Document	T[5]
	1.	2780866	EP	B1	09/24/2014	Jarisch et al.	
	2.	S6415233	JP	A	01/19/1989	Shioyama	Abs.
	3.	2014/191044	WO	A1	12/04/2014	Doglioni	

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.C/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	3761
	Examiner Name	Chou, Jimmy
	Attorney Docket Number	1859.029USC12

NON-PATENT LITERATURE DOCUMENTS			
Examiner Initial*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1.	Nespreso Vertuo Plus User Manual, accessed on April 22, 2022, from: https://www.nespresso.com/shared_res/manuals/vertuoline/www_VERTUOPLUS_C_NESPRESSO_Z1(EN_FR_ES).pdf, and under Document Properties in Adobe includes a 10/6/2016 Created Date and a 10/6/2016 Modified Date.	
	2.	Final Order On Claim Construction, dated March 10, 2022, in Case No. 2:21-cv-03402-GW (AGRx)	
	3.	Non-Final Office Action in US 17/670,629, dated April 15, 2022 (Atty. Docket No. 1859.029USC13)	
	4.	Non-Final Office Action in US 17/670,765, dated April 15, 2022 (Atty. Docket No. 1859.029USC14)	
	5.	Petitioner's Request For Rehearing Of The PTAB's Denial of Inter Partes Review of U.S. Patent No. 10,858,176, filed on February 17, 2022.	
	6.	Petitioner's Request For Rehearing Of The PTAB's Denial of Inter Partes Review of U.S. Patent No. 10,858,177, filed on February 17, 2022.	
	7.	Petitioner's Request For Rehearing Of The PTAB's Denial of Inter Partes Review of U.S. Patent No. 10,870,531, filed on February 17, 2022.	
	8.	Redacted Memorandum Of Points And Authorities In Support Of Nespresso USA, INC.'s Motion For Summary Judgement of Noninfringement, dated April 01, 2022, in Case No. 2:21-cv-03402-GW (AGRx)	
	9.	Redacted Nespresso USA, INC.'S Separate Statement Of Uncontroverted Facts And Conclusions Of Law In Support Of Its Motion For Summary Judgement Of Noninfringement, dated April 01, 2022, in Case No. 2:21-cv-03402-GW (AGRx)	
	10.	Redacted Declaration of Christian Jarisch, dated March 30, 2022, and filed in Case No. 2:21-cv-03402-GW (AGRx) on April 01, 2022.	
	11.	Opposition Appeal Against EP 3023362, dated December 20, 2021, and appended documents.	
	12.	Exhibit 1045 (English Translation of DE 10 2011 010 534.4) filed by Nespresso USA in IPR2021-01223	
	13.	Exhibit 1046 (English Translation of DE 10 2010 031 988.0) filed by Nespresso USA in IPR2021-01223	
	14.	Exhibit 1047 (English Translation of DE 10 2010 044 251.8) filed by Nespresso USA in IPR2021-01223	
	15.	Third Party Observations against EP 19 165 220.5 (3 533 726), filed by Société des Produits Nestle S.A., August 26, 2021	
	16.	Opposition against EP 3 521 209, filed by Société des Produits Nestle	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	3761
	Examiner Name	Chou, Jimmy /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

		S.A., January 22, 2020	

EXAMINER SIGNATURE			
Examiner Signature	/JIMMY CHOU/	Date Considered	07/11/2022
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.C/

Bibliographic Data

Application No: 17/547,363

Foreign Priority claimed: (•) Yes ( ) No

35 USC 119 (a-d) conditions met: [✓] Yes [ ] No [ ] Met After Allowance

Verified and Acknowledged: /JIMMY CHOU/ (Examiner's Signature) JC (Initials)

Title: PORTION CAPSULE HAVING AN IDENTIFIER

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
12/10/2021	099	3761	1859.029USC12
RULE			

APPLICANTS

K-FEE SYSTEM GMBH, Bergisch Gladbach, GERMANY

INVENTORS

Marc Krüger, Bergisch Gladbach, GERMANY

CONTINUING DATA

This application is a CON of 15646980 07/11/2017

15646980 is a DIV of 15211823 07/15/2016ABN

15211823 is a DIV of 13744623 01/18/2013ABN

13744623 is a CON of PCT/EP2011/003677 07/22/2011

FOREIGN APPLICATIONS

GERMANY DE10 2010 031 988.0 07/22/2010

GERMANY DE10 2010 044 251.8 09/02/2010

GERMANY DE10 2011 010 534.4 02/07/2011

IF REQUIRED, FOREIGN LICENSE GRANTED**

12/21/2021

STATE OR COUNTRY

GERMANY

ADDRESS

The Dobrusin Law Firm P.C.
29 W. Lawrence Street
Suite 210
Pontiac, MI 48342
UNITED STATES

FILING FEE RECEIVED

$6,160

Filed via EFS @ USPTO.gov on September 8, 2022
Practitioner's Docket No. 1859.029USC12 / KRU0022-WO-US-T13

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Marc Krüger	Art Unit: 3761
Application No.: 17547363	Examiner: Chou, Jimmy
Filed: December 10, 2021	Conf. No.: 6426

For: Portion Capsule Having An Identifier

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97(E)(2)

Applicant submits this statement in accordance with its duty of disclosure under 37 C.F.R. §§ 1.56, 1.97, and 1.98. The submission made herewith is in no way intended as an admission that the cited items constitute material prior art or otherwise would render the claims unpatentable in any way. The submission also is in no way intended to substitute for the Examiner's own independent investigation.

Nothing in this Submission or in any other Submission should be regarded as a disclaimer of claim scope. No statement by Applicant or related companies in any foreign proceeding should be regarded as a disclaimer or other surrender of claim scope in this proceeding.

Because the various foreign proceedings referred to in this and previous Submission involve different claims and context than those pending in this application, nothing cited in this Submission should constitute an acquiescence or adoption of any position advanced in foreign proceedings.

Copies of foreign patent documents and non-patent literature, together with a listing on form PTO/SB/08a are submitted herewith.

E(2) Certification: No item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of the information disclosure statement.

Summary Of Foreign Proceedings

Applicant has been forthcoming in advising the various USPTO Examiners examining the patent

applications in this family that Applicant and an Adverse Party[1] are involved in foreign adversarial proceedings in which the Adverse Party is relying on positions that, upon inquiry, are believed to be consistent with those made in previously cited Information Disclosure Statements, including European opposition proceedings and as to which we update the Office to advise that the Adverse Party filed an appeal from the decision of the European Patent Office Opposition Decision that upheld the European patent.

The Undersigned has also been advised that pending in France and Switzerland are nullity proceedings attacking the validity of the opposed patents in those countries. The Adverse Party has also filed an opposition to a Japanese patent. As understood by the Undersigned, the Adverse party has advanced arguments and grounds in the French, Swiss, and Japanese proceedings that are similar to the prior arguments, papers, and oppositions by that Party, which have been cited to the USPTO in prior Information Disclosure Statements (See e.g., Submission dated February 14, 2022 and May 25, 2022). There are also non-infringement proceedings in Europe that are being defended by the Adverse Party based on similar positions taken in the United States that the accused products do not have a barcode as that term was construed.

Accompanying this Submission at Cite No. 14 is a filing by Nestle Nespresso SA dated June 13, 2022 referring to a contingent counterclaim in Switzerland. In that Submission, there is reference to additional potential prior art on pages 16 and 44-47 of the English translation (capsules for the classic Nespresso System Special Edition). As understood, Nestle Nespresso did not allege that the lines on those capsules perform any function in relation to a beverage making machine.

To the extent that the Examiner desires further information on any of the adversarial proceedings, the Examiner is kindly requested to inform the Undersigned.

Foreign Vindication Proceedings

An Adverse Party has filed proceedings in Germany and Switzerland in which, as understood by the undersigned, allege the Asserted Patents were not conceived by the named inventor, Marc Krüger, and instead were derived from others, including without limitation by individuals at Nespresso's affiliates and/or individuals at Eugster/Frismag AG. To the extent that the Examiner desires further information on any of the adversarial proceedings, the Examiner is kindly requested to inform the Undersigned.

Claim Construction Order

[1] As the Office will be able to glean from the submissions, the Adverse Party is one or more companies having Nespresso and/or Nestle in its name.

It will be observed from the Claim Construction Order cited in a previous Information Disclosure Statement that certain aspects of foreign proceedings are being relied upon by the Adverse Party in the Capsule Litigation. For purposes of the present examination, Applicant desires that prosecution be conducted providing the broadest reasonable meaning of the claim terms without limiting those claim terms to any features allegedly distinguished in foreign proceedings, and Applicant makes no reliance on any arguments made by representatives of Applicant in any such foreign proceedings. To the extent that the Examiner desires further information, the Examiner is kindly requested to inform the Undersigned.

Preliminary Invalidity Contentions

Preliminary Invalidity Contentions have been filed by the Adverse Party against Applicant's commonly-owned US Patent 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx). The Preliminary Invalidity Contentions allege invalidity of US Patent 11,254,491 under 35 U.S.C. § 102, 103, and 112. The Exhibits and Claim Charts referred to in the Preliminary Invalidity Contentions are included herewith. Moreover, pages 2 and 19-28, for example, relate to issues addressed in the Interview dated June 28, 2022 and as discussed in the Interview Summary and Applicant's response to the Office Acton filed on July 15, 2022.

Request For Patent Cancellation of Korean Patent No 10-2318476, mailed June 20, 2022 (hereafter "Request")

A Request has been filed in the Korean Intellectual Property Office by the Adverse party to Cancel Korean Patent No 10-2318476. Upon inquiry, it is understood that the proceeding advances arguments and grounds that are consistent with the prior arguments, papers, and oppositions, which have been cited to the Office in prior Information Disclosure Statements. Request appears to rely on references including: WO 2005/079638 A1, US 2010/0078480 A1, JP 2003-235733, WO 2005/044067 A1, US 2002/0048621 A1, KR 200435370, WO 01/99047 A1, US 6,645,537 B2, EP 1849718 A1, WO 2010/041179 A1, US 2006/0233921 A1. To the extent that the Examiner desires further information on this proceeding, the Examiner is kindly requested to inform the Undersigned.

Notification Of Reasons for Revocation Of Japanese Patent No. 694164, dated June 22, 2022 (hereafter "Notification")

A Notification has been issued by the Japanese Patent Office against Japanese Patent No. 6941640. Upon inquiry, it is understood that the proceeding advances arguments and grounds that are consistent with the prior arguments, papers, and oppositions, which have been cited to the Office in prior

Information Disclosure Statements. The JP Notification relies on JP 2013-526316, which is understood to be an equivalent of WO2011141532A and US 2013/0064937 A1; WO 02/28241 A; US 2010/0078480; WO 2010/026053 A1; EP 1722398 A1; EP 0455337 A1; US 5,285,041; WO 01/99047 A; WO 01/60712; and JP 2013-530798. To the extent that the Examiner desires further information on this proceeding, the Examiner is kindly requested to inform the Undersigned.

Date: September 08, 2022

/Paul J. Palinski/

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Customer No. 25215

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17547363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	3761
	Examiner Name	Chou, Jimmy
	Attorney Docket Number	1859.029USC12

U.S. PATENTS					
Examiner Initials*	Cite No.	Patent Number	Kind Code	Issue Date	Name of Patentee or Applicant of cited Document
	1.	726,793		04/28/1903	Bezzera
	2.	3,387,553		10/24/1965	Tavera
	3.	3,437,253		04/08/1969	Davis et al.
	4.	5,261,558		11/16/1993	Claydon
	5.	6,142,063		11/07/2000	Beaulieu et al.
	6.	7,461,584		12/09/2008	Blanc et al.

U.S. PATENT APPLICATION PUBLICATIONS					
Examiner Initials*	Cite No.	Publication Number	Kind Code	Publication Date	Name of Patentee or Applicant of cited Document
	1.	2002/0078831	A1	06/27/2002	Cai
	2.	2004/0112222	A1	06/17/2004	Fischer
	3.	2006/0233921	A1	10/19/2006	Mock et al.
	4.	2006/0230941	A1	10/19/2006	Ryser et al.
	5.	2008/0105131	A1	05/08/2008	Castellani
	6.	2009/0205747	A1	08/20/2009	Lillard, Jr.
	7.	2011/0265659	A1	11/03/2011	Giua
	8.	2012/0269933	A1	10/25/2012	Rapparini
	9.	2013/0099597	A1	04/25/2013	Perentes

FOREIGN PATENT DOCUMENTS							
Examiner Initial*	Cite No.	Foreign Document Number	Country Code	Kind Code	Publication Date	Name of Patentee or Applicant of cited Document	T[5]
	1.	2145759	EP	A1	01/20/2010	Geerts et al.	
	2.	2001/060712	WO	A1	08/23/2001	Sweeney et al.	
	3.	2010/034663	WO	A1	04/01/2010	Ozanne et al.	
	4.	2010/099806	WO	A1	09/10/2010	Rossi	

NON-PATENT LITERATURE DOCUMENTS			
Examiner Initial*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1.	Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17547363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	3761
	Examiner Name	Chou, Jimmy
	Attorney Docket Number	1859.029USC12

	2.	Appendix A - Obviousness Chart for U.S. Patent No. 11,254,491 referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	3.	Exhibit A-1 Invalidity of U.S. Patent No. 11,254,491 in view of Denisart, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	4.	Exhibit A-2 Invalidity of U.S. Patent No. 11,254,491 in view of Giua, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	5.	Exhibit A-3 Invalidity of U.S. Patent No. 11,254,491 in view of Jarisch, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	6.	Exhibit A-4 Invalidity of U.S. Patent No. 11,254,491 in view of Jarisch 929, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	7.	Exhibit A-5 Invalidity of U.S. Patent No. 11,254,491 in view of Mahlich, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	8.	Exhibit A-6 Invalidity of U.S. Patent No. 11,254,491 in view of Panesar, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	9.	Exhibit A-7 Invalidity of U.S. Patent No. 11,254,491 in view of Rossi, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	10.	Exhibit A-8 Invalidity of U.S. Patent No. 11,254,491 in view of Ruchonnet, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	11.	Exhibit A-9 Invalidity of U.S. Patent No. 11,254,491 in view of Yoakim, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	12.	Espresso Coffee, The Science of Quality, Second Edition, Edited By Andrew Illy and Rinantonio Viani, referred to in Nespresso's	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17547363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	3761
	Examiner Name	Chou, Jimmy
	Attorney Docket Number	1859.029USC12

		Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	13.	11 - Packaging and the Shelf Like of Coffee, ISBN 9781420078442, Food Packaging and Shelf Life: A Practical Guide (2009), referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	14.	Nestle Nespresso SA reply dated June 13, 2022 to Defendant K-fee System GmbH contingent counterclaim	X
	15.	Applicant statements included in the IDS Transmittal Letter filed on September 08, 2022 relating to: Summary of Foreign Proceedings, Foreign Vindication Proceedings, Claim Construction Order, Preliminary Invalidity Contentions, Request For Patent Cancellation of Korean Patent No 10-2318476, Notification Of Reasons for Revocation Of Japanese Patent No. 694164	
	16.	Notice of References cited by the USPTO Examiner in US Application No. 17/844,372 (Atty Docket No. 1859.029USC15), dated August 11, 2022.	

EXAMINER SIGNATURE			
Examiner Signature		Date Considered	
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

Electronic Acknowledgement Receipt

EFS ID:	46571750
Application Number:	17547363
International Application Number:	
Confirmation Number:	6426
Title of Invention:	PORTION CAPSULE HAVING AN IDENTIFIER
First Named Inventor/Applicant Name:	Marc Krüger
Customer Number:	25215
Filer:	Paul J. Palinski/BECKY BALLARD
Filer Authorized By:	Paul J. Palinski
Attorney Docket Number:	1859.029USC12
Receipt Date:	08-SEP-2022
Filing Date:	10-DEC-2021
Time Stamp:	08:36:28
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	Supplemental_IDS_1859_029USC12.pdf	190961 cdd5abf7bae095d0aecc320535edd7477755a257	no	7

Warnings:

Information:					
This is not an USPTO supplied IDS fillable form					
2	Foreign Reference	EP2145759A1.pdf	444631 0220eb8fd1de4cc0239cf91487ea71a625d36b55	no	8
Warnings:					
Information:					
3	Foreign Reference	WO0160712A1.pdf	1417682 e48d3c414181da1abc512c3e9afbb380cb5dfe90	no	20
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Information:					
4	Foreign Reference	WO2010034663A1.pdf	765619 72c0a09de4f655e1b9249fe32797481 7d72c5e73	no	14
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5	Foreign Reference	WO2010099806A1.pdf	1248118 3d1bba8eebb7ad909d48dc70b99b6b757e745f38	no	21
Warnings:					
Information:					
6	Non Patent Literature	1_NespressosPreliminaryInvalidityContentions.pdf	318942 14526d84869afe01d1506e90cc62c23e02f5a9ab	no	32
Warnings:					
Information:					
7	Non Patent Literature	2_Appendix_A_491_PatentObviousnessChart.pdf	3094247 c53bac45e43a7185f402ad5a809205199b6f9d4f	no	213
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Information:					
8	Non Patent Literature	3_Exhibit_A_1_491PatentDenisart.pdf	562197 08584e351d86c607acf776c10ab0e4802014eb13	no	116
Warnings:					
Information:					

9	Non Patent Literature	4_Exhibit_A_2_491_PatentGiua.pdf	279632 1a4ac666b56217ace71bb1c7736c20cd6dea7696	no	34
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Information:					
10	Non Patent Literature	5_Exhibit_A_3_491_PatentJarisch.pdf	406215 e4b69754a75d893d52d17d0178e744bdf2bfe372	no	41
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Information:					
11	Non Patent Literature	6_Exhibit_A_4_491_PatentJarisch929.pdf	345409 8b35d0f608b886ce78d4c3bb55d8b0e2c4fce8fc	no	42
Warnings:					
Information:					
12	Non Patent Literature	7_Exhibit_A_5_491_PatentMahlich.pdf	336170 1eaa4eadb0f4c1768fbe85327615576f6ac7c85b	no	51
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Information:					
13	Non Patent Literature	8_Exhibit_A_6_491_PatentPanesar.pdf	389455 68bfdc73eb2dd83cbb84cd62824221a3ff4ee54a	no	41
Warnings:					
Information:					
14	Non Patent Literature	9_Exhibit_A_7_491_PatentRossi.pdf	304070 332f4c8cf02ed5a19cfda43a2591cf1d38acd187	no	69
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Information:					
15	Non Patent Literature	10_Exhibit_A_8_491_PatentRuchonnet.pdf	528214 3371a8dee38bfddee1181093bf205c651a678248	no	58
Warnings:					
Information:					

16	Non Patent Literature	11_Exhibit_A_9_491_PatentYoakim.pdf	738313 79a4886d77506c8611f359dbdb94962d0c775464	no	54
Warnings:					
Information:					
17	Non Patent Literature	12_EspressoCoffee_TheScienceofQuality.pdf	859203 119cf0bfc54886518d3c89d44a661d2572808efd	no	8
Warnings:					
Information:					
18	Non Patent Literature	13_11PackagingandtheShelfLifeofCoffee.pdf	5803422 25c4c0fafbc0890fb4a51b27d03eacdf25594cdc	no	16
Warnings:					
Information:					
19	Non Patent Literature	14_NestleSwissResponseJune132022.pdf	17502201 33e28aa7198353091af5889c000158bfa096bcc5	no	91
Warnings:					
Information:					
20	Non Patent Literature	NoticeOfReferences.pdf	2322274 d8fd428d395607b7146f6bf24246e7cbddf686e3	no	45
Warnings:					
Information:					
			Total Files Size (in bytes):	37856975	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Filed via EFS @ USPTO.gov on September 8, 2022
Attorney Docket No.: 1859.029USC12 (KRU0022-WO-US-T13)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Marc KRÜGER	Group Art Unit: 3761
Serial No.: 17/547,363	Examiner: Chou, Jimmy
Filed: December 10, 2021	Confirmation No: 6426

For: PORTION CAPSULE HAVING AN IDENTIFIER

Attorney Docket No.: 1859.029USC12 (KRU0022-WO-US-T13)

AMENDMENT AFTER ALLOWANCE

In response to the Notice of Allowance mailed July 19, 2022, please amend the claims of the above-identified application as follows and consider the following remarks. No new matter has been added.

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AMENDMENTS TO CLAIMS

1) – 9) (Cancelled)

10) (Currently Amended) A beverage system comprising:

A) a single-serve capsule comprising:

i) a base element with a cavity, in which a beverage material is provided, the base element including a wall that is symmetrical about a central longitudinal axis thereof and having a closed, rounded bottom portion, the base element is free of a filter inside of the cavity;

ii) a flange extending outwardly from the base element, the flange having a top side and an opposing bottom side;

iii) a cover fastened to the top side of the flange, the cover is bowed outwardly in a central region of the cover relative to a peripheral region of the cover, the cover includes a region configured to be pierced at a location that is offset from the central longitudinal axis;

iv) a barrier layer to prevent moisture or aroma from escaping out of the single-serve capsule; and

v) an individualization identifier, which includes an optically detectable repeat pattern, provided on the bottom side of the flange;

B) a beverage machine comprising:

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i) a capsule receptacle having a wall structure into which the single-serve capsule is received, the capsule receptacle defined by a base portion and an annular portion laterally extending outwardly from the base portion in a direction that is transverse to a longitudinal axis of the capsule receptacle;

ii) a chamfered mandrel that pierces the cover at the location that is offset from the central longitudinal axis;

iii) an optical sensor/detector positioned outside of the base portion of the wall structure of the capsule receptacle and below the annular portion, which directs a beam through a portion of the wall structure to read the individualization identifier on the single-serve capsule;

iv) a pump that supplies water into the single-serve capsule only after the individualization identifier is read by the sensor/detector;

v) a groove that is laterally offset from the chamfered mandrel; and

vi) a seal that is at least partially seated in the groove and configured to bear against a top side of the cover in a region between the peripheral region of the cover and the region of the cover that is pierced by the chamfered mandrel.

11) (Previously Presented) The beverage system according to claim 10, wherein the pump is rendered inoperable if there is a determination that the single-serve capsule is not compatible with the beverage machine.

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12) (Currently Amended) The beverage system according to claim 11, wherein the pump supplies the water into the single-serve capsule only after the individualization identifier is compared to a stored reference.

13) (Previously Presented) The beverage system according to claim 11, wherein the beverage machine comprises a waste container for the single-serve capsule to fall into.

14) (Previously Presented) The beverage system according to claim 13, wherein the beverage machine comprises a pair of holding arms for guiding the single-serve capsule.

15) (Previously Presented) The beverage system according to claim 12, wherein the base element comprises an exterior wall that includes a plurality of indentations arranged about the central longitudinal axis.

16) (Previously Presented) The beverage system according to claim 15, wherein the cavity is defined by an inside wall that includes a ledge at an upper region thereof, the ledge projects from the inside wall towards the central longitudinal axis.

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17) (Currently Amended) The beverage system according to claim 15, wherein the individualization identifier is located on the exterior wall of the base element.

18) (Currently Amended) The beverage system according to claim 16, wherein the individualization identifier is located on the exterior wall of the base element.

19) (Previously Presented) The beverage system according to claim 18, wherein the base element is made of metal, a biodegradable material, or plastic.

20) (Previously Presented) The beverage system according to claim 18, wherein the base element is deep drawn.

21) (Previously Presented) A beverage system comprising:

A) a single-serve capsule comprising:

i) a base element with a cavity, in which a beverage material is provided, the base element including a wall that is symmetrical about a central longitudinal axis thereof and having a closed, rounded bottom portion, the base element having an exterior wall that includes a plurality of indentations arranged about the central longitudinal axis, the base element is free of a filter inside of the cavity;

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ii) a flange extending outwardly from the base element, the flange having a top side and an opposing bottom side;

iii) a cover fastened to the top side of the flange, the cover is bowed outwardly in a central region of the cover relative to a peripheral region of the cover, the cover includes a region configured to be pierced at a location that is offset from the central longitudinal axis;

iv) a barrier layer to prevent moisture or aroma from escaping out of the single-serve capsule; and

v) an individualization identifier, which includes an optically detectable repeat pattern, provided on the bottom side of the flange;

B) a beverage machine comprising:

i) a capsule receptacle having a wall structure into which the single-serve capsule is received, the capsule receptacle defined by a base portion and an annular portion laterally extending outwardly from the base portion in a direction that is transverse to a longitudinal axis of the capsule receptacle,

ii) a chamfered mandrel that pierces the cover at the location that is offset from the central longitudinal axis;

iii) an optical sensor/detector positioned outside of the base portion of the wall structure of the capsule receptacle and below the annular portion, which directs a beam through a portion of the wall structure to read the identifier on the single-serve capsule,

iv) a pump that supplies water into the single-serve capsule only after the individualization identifier is read by the sensor/detector;

v) a groove that is laterally offset from the chamfered mandrel; and

vi) a seal that is at least partially seated in the groove and configured to bear against a top side of the cover in a region between the peripheral region of the cover and the region of the cover that is pierced by the chamfered mandrel.

22) (Currently Amended) The beverage system according to claim 21, wherein the cavity is defined by an inside wall that includes a ledge at an upper region thereof, the ledge projects from the inside wall towards the central longitudinal axis~~, and wherein the cavity is free of a filter~~.

23) (Currently Amended) The beverage system according to claim 22, wherein the pump supplies the water into the single-serve capsule only after the individualization identifier is compared to a stored reference, and the individualization identifier is located on the exterior wall of the base element.

24) (Previously Presented) The beverage system according to claim 23, wherein the beverage machine comprises a waste container for the single-serve capsule to fall into and a pair of holding arms for guiding the single-serve capsule.

25) (Previously Presented) The beverage system according to claim 24, wherein the base element is made of metal, a biodegradable material, or plastic.

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Nespresso USA, Inc. Ex. 1002
Page 546 of 598

26) (Previously Presented) The beverage system according to claim 25, wherein the base element is deep drawn.

27) (Previously Presented) The beverage system according to claim 22, wherein the base element and/or the cover are made of aluminum.

28) (Currently Amended) The beverage system according to claim 22, wherein the base element has an exterior wall region with an electrically conductive section, and the individualization identifier is located on the exterior wall region.

29) (Currently Amended) The beverage system according to claim 28, wherein the individualization identifier has a plurality of matte and reflective zones, and the base element and the cover are made of the same material.

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Nespresso USA, Inc. Ex. 1002
Page 547 of 598

REMARKS

Claim Amendments

By way of the foregoing amendments and the markings to show changes, Applicant has amended Claim 22 to remove a limitation related to the cavity being free of a filter in view of the limitations included in claim 21, from which claim 22 depends. Applicant has also amended several of the dependent claims to add the term "individualization" to be consistent with the independent claim from which they depend. No new matter has been added and Applicant makes no disclaimer or concession regarding these amendments. The foregoing amendments are taken in the interest of expediting prosecution and there is no intention of surrendering any range of equivalents to which Applicant would otherwise be entitled in view of the prior art. Further, by the present amendment, it does not follow that the amended claims have become so perfect in their description that no one could devise an equivalent. After amendment, as before, limitations in the ability to describe the present invention in language in the patent claims naturally prevent the Applicant from capturing every nuance of the invention or describing with complete precision the range of its novelty or every possible equivalent. Accordingly, the foregoing amendments are made specifically in the interest of expediting prosecution and there is no intention of surrendering any range of equivalents to which Applicant would otherwise be entitled.

CONCLUSIONS

In view of Applicant's amendments and remarks, the Examiner's rejections are believed to be rendered moot. Accordingly, Applicant submits that the present application is in condition for allowance and requests that the Examiner pass the case to issue at the earliest convenience. Should the Examiner have any questions or wish to further discuss this application, Applicant requests that the Examiner contact the undersigned at (248) 292-2920. If for some reason Applicant has not requested a sufficient extension and/or has not paid a sufficient fee for this response and/or for the extension necessary to prevent the abandonment of this application, please consider this as a request for an extension for the required time period and/or authorization to charge our Deposit Account No. 50-1097 for any fee which may be due.

Date: September 08, 2022

Customer No. 25215

Respectfully submitted,
/Paul J. Palinski/
Paul J. Palinski, Reg. No. 71,080
Attorney for Applicant
The Dobrusin Law Firm, P.C.
29 W. Lawrence Street - Suite 210
Pontiac, MI 48342
(248) 292-2920

IPR2024-00239
Nespresso USA, Inc. Ex. 1002
Page 548 of 598

Electronic Patent Application Fee Transmittal

Application Number:	17547363
Filing Date:	10-Dec-2021
Title of Invention:	PORTION CAPSULE HAVING AN IDENTIFIER
First Named Inventor/Applicant Name:	Marc Krüger
Filer:	Paul J. Palinski/BECKY BALLARD
Attorney Docket Number:	1859.029USC12

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
UTILITY APPL ISSUE FEE	1501	1	1200	1200

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**1200**

Electronic Acknowledgement Receipt

EFS ID:	46574542
Application Number:	17547363
International Application Number:	
Confirmation Number:	6426
Title of Invention:	PORTION CAPSULE HAVING AN IDENTIFIER
First Named Inventor/Applicant Name:	Marc Krüger
Customer Number:	25215
Filer:	Paul J. Palinski/BECKY BALLARD
Filer Authorized By:	Paul J. Palinski
Attorney Docket Number:	1859.029USC12
Receipt Date:	08-SEP-2022
Filing Date:	10-DEC-2021
Time Stamp:	12:35:55
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$1200
RAM confirmation Number	E202298C36241643
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	IssueFee_1859_029USC12.pdf	122352 95390c7342e1a1a68e24d612726243628ef55b53	no	1
Warnings:					
Information:					
2		Response_1859_029USC12.pdf	156459 b93331805712f9983ed1d57550dc9c4deb0933d1	yes	9

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment after Notice of Allowance (Rule 312)	1	1
	Claims	2	8
	Applicant Arguments/Remarks Made in an Amendment	9	9

Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	38037 44283a0fcbd0f2d4658bccc78a933e954b639a76	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	316848		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

25215 7590 07/19/2022

The Dobrusin Law Firm P.C.
29 W. Lawrence Street
Suite 210
Pontiac, MI 48342

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

Becky Ballard	(Typed or printed name)
/Becky Ballard/	(Signature)
September 8, 2022	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/547,363	12/10/2021	Marc Krüger	1859.029USC12	6426

TITLE OF INVENTION: PORTION CAPSULE HAVING AN IDENTIFIER

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$1200	$0.00	$0.00	$1200	10/19/2022

EXAMINER	ART UNIT	CLASS-SUBCLASS
CHOU, JIMMY	3761	099-295000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/AIA/122 or PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 The Dobrusin Law Firm, P.C.
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: K-FEE SYSTEM GMBH

(B) RESIDENCE: (CITY and STATE OR COUNTRY): Bergisch Gladbach, Germany

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ☒ Corporation or other private group entity ❑ Government

4a. Fees submitted: ☒ Issue Fee ❑ Publication Fee (if required) ❑ Advance Order - # of Copies _____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

☒ Electronic Payment via EFS-Web ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29

❑ Applicant asserting small entity status. See 37 CFR 1.27

❑ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature /Paul J. Palinski/ Date September 8, 2022

Typed or printed name Paul J. Palinski Registration No. 71,080

IPR2024-00239
Nespresso USA, Inc. Ex. 1002
Page 554 of 598

Electronic Patent Application Fee Transmittal

Application Number:	17547363
Filing Date:	10-Dec-2021
Title of Invention:	PORTION CAPSULE HAVING AN IDENTIFIER
First Named Inventor/Applicant Name:	Marc Krüger
Filer:	Paul J. Palinski/BECKY BALLARD
Attorney Docket Number:	1859.029USC12

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	1806	1	260	260
		Total in USD ($)		**260**

Electronic Acknowledgement Receipt

EFS ID:	46674806
Application Number:	17547363
International Application Number:	
Confirmation Number:	6426
Title of Invention:	PORTION CAPSULE HAVING AN IDENTIFIER
First Named Inventor/Applicant Name:	Marc Krüger
Customer Number:	25215
Filer:	Paul J. Palinski/BECKY BALLARD
Filer Authorized By:	Paul J. Palinski
Attorney Docket Number:	1859.029USC12
Receipt Date:	22-SEP-2022
Filing Date:	10-DEC-2021
Time Stamp:	18:49:18
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$260
RAM confirmation Number	E20229LI49411126
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Fee Worksheet (SB06)	fee-info.pdf	38152 8bdbae8daf01863337b97b531e067bda92289b8f	no	2

Warnings:	
Information:	
Total Files Size (in bytes):	38152

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New International Application Filed with the USPTO as a Receiving Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/547,363	12/10/2021	Marc Krüger	1859.029USC12	6426

25215 7590 09/30/2022

The Dobrusin Law Firm P.C.
29 W. Lawrence Street
Suite 210
Pontiac, MI 48342

EXAMINER	
CHOU, JIMMY	

ART UNIT	PAPER NUMBER
3761	

NOTIFICATION DATE	DELIVERY MODE
09/30/2022	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

dobrusin_PAIR@firsttofile.com
patmail@patentco.com
rmasquelier@patentco.com

Corrected ***Notice of Allowability***	**Application No.** 17/547,363	**Applicant(s)** Krüger, Marc	
	Examiner JIMMY CHOU	**Art Unit** 3761	**AIA (FITF) Status** No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☑ This communication is responsive to 09/08/2022.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are 10-29 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☑ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☑ All b) ☐ Some* c) ☐ None of the:

   1. ☑ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.
5. ☐ Examiner's Amendment/Comment
6. ☐ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/JIMMY CHOU/ Primary Examiner, Art Unit 3761	/HELENA KOSANOVIC/ Supervisory Patent Examiner, Art Unit 3761

Response to Rule 312 Communication	Application No.	Applicant(s)	
	17/547,363	Krüger, Marc	
	Examiner	Art Unit	AIA (FITF) Status
	JIMMY CHOU	3761	No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

1. ☑ The amendment filed on 08 September 2022 under 37 CFR 1.312 has been considered, and has been:

a) ☑ entered.

b) ☐ entered as directed to matters of form not affecting the scope of the invention.

c) ☐ disapproved because the amendment was filed after the payment of the issue fee.

Any amendment filed after the date the issue fee is paid must be accompanied by a petition under 37 CFR 1.313(c)(1) and the required fee to withdraw the application from issue.

d) ☐ disapproved. See explanation below.

e) ☐ entered in part. See explanation below.

f) ☐ not entered because the supplemental or corrected Application Data sheet (ADS)

☐ was not accompanied by a petition to accept an unintentionally delayed claim under 37 CFR 1.55 or 27 CFR 1.78;

☐ did not identify the information being changed in accordance with 37 CFR 1.76(c)(2);

☐ was not properly signed in accordance with 37 CFR 1.76(e) (or 37 CFR 1.33(b) for applications filed prior to September 16, 2012).

/JIMMY CHOU/ Primary Examiner, Art Unit 3761	/HELENA KOSANOVIC/ Supervisory Patent Examiner, Art Unit 3761

IPR2024-00239
Nespresso USA, Inc. Ex. 1002
Page 561 of 598

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/547,363	12/10/2021	Marc Krüger	1859.029USC12	6426

25215 7590 10/26/2022

The Dobrusin Law Firm P.C.
29 W. Lawrence Street
Suite 210
Pontiac, MI 48342

EXAMINER	
CHOU, JIMMY	

ART UNIT	PAPER NUMBER
3761	

NOTIFICATION DATE	DELIVERY MODE
10/26/2022	ELECTRONIC

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dobrusin_PAIR@firsttofile.com
patmail@patentco.com
rmasquelier@patentco.com

Corrected ***Notice of Allowability***	**Application No.** 17/547,363	**Applicant(s)** Krüger, Marc	
	Examiner JIMMY CHOU	**Art Unit** 3761	**AIA (FITF) Status** No

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   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are 10-29 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

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   Certified copies:

   a) ☑ All b) ☐ Some* c) ☐ None of the:

   1. ☑ Certified copies of the priority documents have been received.
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   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

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6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

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5. ☐ Examiner's Amendment/Comment
6. ☐ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/JIMMY CHOU/
Primary Examiner, Art Unit 3761

Filed via EFS @ USPTO.gov on September 8, 2022
Practitioner's Docket No. 1859.029USC12 / KRU0022-WO-US-T13

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Marc Krüger	Art Unit: 3761
Application No.: 17547363	Examiner: Chou, Jimmy
Filed: December 10, 2021	Conf. No.: 6426

For: Portion Capsule Having An Identifier

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97(E)(2)

Applicant submits this statement in accordance with its duty of disclosure under 37 C.F.R. §§ 1.56, 1.97, and 1.98. The submission made herewith is in no way intended as an admission that the cited items constitute material prior art or otherwise would render the claims unpatentable in any way. The submission also is in no way intended to substitute for the Examiner's own independent investigation.

Nothing in this Submission or in any other Submission should be regarded as a disclaimer of claim scope. No statement by Applicant or related companies in any foreign proceeding should be regarded as a disclaimer or other surrender of claim scope in this proceeding.

Because the various foreign proceedings referred to in this and previous Submission involve different claims and context than those pending in this application, nothing cited in this Submission should constitute an acquiescence or adoption of any position advanced in foreign proceedings.

Copies of foreign patent documents and non-patent literature, together with a listing on form PTO/SB/08a are submitted herewith.

E(2) Certification: No item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of the information disclosure statement.

Summary Of Foreign Proceedings

Applicant has been forthcoming in advising the various USPTO Examiners examining the patent

applications in this family that Applicant and an Adverse Party[1] are involved in foreign adversarial proceedings in which the Adverse Party is relying on positions that, upon inquiry, are believed to be consistent with those made in previously cited Information Disclosure Statements, including European opposition proceedings and as to which we update the Office to advise that the Adverse Party filed an appeal from the decision of the European Patent Office Opposition Decision that upheld the European patent.

The Undersigned has also been advised that pending in France and Switzerland are nullity proceedings attacking the validity of the opposed patents in those countries. The Adverse Party has also filed an opposition to a Japanese patent. As understood by the Undersigned, the Adverse party has advanced arguments and grounds in the French, Swiss, and Japanese proceedings that are similar to the prior arguments, papers, and oppositions by that Party, which have been cited to the USPTO in prior Information Disclosure Statements (See e.g., Submission dated February 14, 2022 and May 25, 2022). There are also non-infringement proceedings in Europe that are being defended by the Adverse Party based on similar positions taken in the United States that the accused products do not have a barcode as that term was construed.

Accompanying this Submission at Cite No. 14 is a filing by Nestle Nespresso SA dated June 13, 2022 referring to a contingent counterclaim in Switzerland. In that Submission, there is reference to additional potential prior art on pages 16 and 44-47 of the English translation (capsules for the classic Nespresso System Special Edition). As understood, Nestle Nespresso did not allege that the lines on those capsules perform any function in relation to a beverage making machine.

To the extent that the Examiner desires further information on any of the adversarial proceedings, the Examiner is kindly requested to inform the Undersigned.

Foreign Vindication Proceedings

An Adverse Party has filed proceedings in Germany and Switzerland in which, as understood by the undersigned, allege the Asserted Patents were not conceived by the named inventor, Marc Krüger, and instead were derived from others, including without limitation by individuals at Nespresso's affiliates and/or individuals at Eugster/Frismag AG. To the extent that the Examiner desires further information on any of the adversarial proceedings, the Examiner is kindly requested to inform the Undersigned.

Claim Construction Order

[1] As the Office will be able to glean from the submissions, the Adverse Party is one or more companies having Nespresso and/or Nestle in its name.

It will be observed from the Claim Construction Order cited in a previous Information Disclosure Statement that certain aspects of foreign proceedings are being relied upon by the Adverse Party in the Capsule Litigation. For purposes of the present examination, Applicant desires that prosecution be conducted providing the broadest reasonable meaning of the claim terms without limiting those claim terms to any features allegedly distinguished in foreign proceedings, and Applicant makes no reliance on any arguments made by representatives of Applicant in any such foreign proceedings. To the extent that the Examiner desires further information, the Examiner is kindly requested to inform the Undersigned.

Preliminary Invalidity Contentions

Preliminary Invalidity Contentions have been filed by the Adverse Party against Applicant's commonly-owned US Patent 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx). The Preliminary Invalidity Contentions allege invalidity of US Patent 11,254,491 under 35 U.S.C. § 102, 103, and 112. The Exhibits and Claim Charts referred to in the Preliminary Invalidity Contentions are included herewith. Moreover, pages 2 and 19-28, for example, relate to issues addressed in the Interview dated June 28, 2022 and as discussed in the Interview Summary and Applicant's response to the Office Acton filed on July 15, 2022.

Request For Patent Cancellation of Korean Patent No 10-2318476, mailed June 20, 2022 (hereafter "Request")

A Request has been filed in the Korean Intellectual Property Office by the Adverse party to Cancel Korean Patent No 10-2318476. Upon inquiry, it is understood that the proceeding advances arguments and grounds that are consistent with the prior arguments, papers, and oppositions, which have been cited to the Office in prior Information Disclosure Statements. Request appears to rely on references including: WO 2005/079638 A1, US 2010/0078480 A1, JP 2003-235733, WO 2005/044067 A1, US 2002/0048621 A1, KR 200435370, WO 01/99047 A1, US 6,645,537 B2, EP 1849718 A1, WO 2010/041179 A1, US 2006/0233921 A1. To the extent that the Examiner desires further information on this proceeding, the Examiner is kindly requested to inform the Undersigned.

Notification Of Reasons for Revocation Of Japanese Patent No. 694164, dated June 22, 2022 (hereafter "Notification")

A Notification has been issued by the Japanese Patent Office against Japanese Patent No. 6941640. Upon inquiry, it is understood that the proceeding advances arguments and grounds that are consistent with the prior arguments, papers, and oppositions, which have been cited to the Office in prior

Information Disclosure Statements. The JP Notification relies on JP 2013-526316, which is understood to be an equivalent of WO2011141532A and US 2013/0064937 A1; WO 02/28241 A; US 2010/0078480; WO 2010/026053 A1; EP 1722398 A1; EP 0455337 A1; US 5,285,041; WO 01/99047 A; WO 01/60712; and JP 2013-530798. To the extent that the Examiner desires further information on this proceeding, the Examiner is kindly requested to inform the Undersigned.

Date: September 08, 2022

/Paul J. Palinski/

Paul J. Palinski

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Customer No. 25215

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17547363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	3761
	Examiner Name	Chou, Jimmy
	Attorney Docket Number	1859.029USC12

U.S. PATENTS					
Examiner Initials*	Cite No.	Patent Number	Kind Code	Issue Date	Name of Patentee or Applicant of cited Document
	1.	726,793		04/28/1903	Bezzera
	2.	3,387,553		10/24/1965	Tavera
	3.	3,437,253		04/08/1969	Davis et al.
	4.	5,261,558		11/16/1993	Claydon
	5.	6,142,063		11/07/2000	Beaulieu et al.
	6.	7,461,584		12/09/2008	Blanc et al.

U.S. PATENT APPLICATION PUBLICATIONS					
Examiner Initials*	Cite No.	Publication Number	Kind Code	Publication Date	Name of Patentee or Applicant of cited Document
	1.	2002/0078831	A1	06/27/2002	Cai
	2.	2004/0112222	A1	06/17/2004	Fischer
	3.	2006/0233921	A1	10/19/2006	Mock et al.
	4.	2006/0230941	A1	10/19/2006	Ryser et al.
	5.	2008/0105131	A1	05/08/2008	Castellani
	6.	2009/0205747	A1	08/20/2009	Lillard, Jr.
	7.	2011/0265659	A1	11/03/2011	Giua
	8.	2012/0269933	A1	10/25/2012	Rapparini
	9.	2013/0099597	A1	04/25/2013	Perentes

FOREIGN PATENT DOCUMENTS							
Examiner Initial*	Cite No.	Foreign Document Number	Country Code	Kind Code	Publication Date	Name of Patentee or Applicant of cited Document	T[5]
	1.	2145759	EP	A1	01/20/2010	Geerts et al.	
	2.	2001/060712	WO	A1	08/23/2001	Sweeney et al.	
	3.	2010/034663	WO	A1	04/01/2010	Ozanne et al.	
	4.	2010/099806	WO	A1	09/10/2010	Rossi	

NON-PATENT LITERATURE DOCUMENTS			
Examiner Initial*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1.	Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.C/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17547363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	3761
	Examiner Name	Chou, Jimmy
	Attorney Docket Number	1859.029USC12

	2.	Appendix A - Obviousness Chart for U.S. Patent No. 11,254,491 referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	3.	Exhibit A-1 Invalidity of U.S. Patent No. 11,254,491 in view of Denisart, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	4.	Exhibit A-2 Invalidity of U.S. Patent No. 11,254,491 in view of Giua, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	5.	Exhibit A-3 Invalidity of U.S. Patent No. 11,254,491 in view of Jarisch, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	6.	Exhibit A-4 Invalidity of U.S. Patent No. 11,254,491 in view of Jarisch 929, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	7.	Exhibit A-5 Invalidity of U.S. Patent No. 11,254,491 in view of Mahlich, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	8.	Exhibit A-6 Invalidity of U.S. Patent No. 11,254,491 in view of Panesar, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	9.	Exhibit A-7 Invalidity of U.S. Patent No. 11,254,491 in view of Rossi, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	10.	Exhibit A-8 Invalidity of U.S. Patent No. 11,254,491 in view of Ruchonnet, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	11.	Exhibit A-9 Invalidity of U.S. Patent No. 11,254,491 in view of Yoakim, referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	12.	Espresso Coffee, The Science of Quality, Second Edition, Edited By Andrew Illy and Rinantonio Viani, referred to in Nespresso's	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17547363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	3761
	Examiner Name	Chou, Jimmy
	Attorney Docket Number	1859.029USC12

		Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	13.	11 - Packaging and the Shelf Like of Coffee, ISBN 9781420078442, Food Packaging and Shelf Life: A Practical Guide (2009), referred to in Nespresso's Preliminary Invalidity Contentions dated July 06, 2022, against U.S. Patent No. 11,254,491, in Case No. 2:22-cv-00525-GW (AGRx).	
	14.	Nestle Nespresso SA reply dated June 13, 2022 to Defendant K-fee System GmbH contingent counterclaim	X
	15.	Applicant statements included in the IDS Transmittal Letter filed on September 08, 2022 relating to: Summary of Foreign Proceedings, Foreign Vindication Proceedings, Claim Construction Order, Preliminary Invalidity Contentions, Request For Patent Cancellation of Korean Patent No 10-2318476, Notification Of Reasons for Revocation Of Japanese Patent No. 694164	
	16.	Notice of References cited by the USPTO Examiner in US Application No. 17/844,372 (Atty Docket No. 1859.029USC15), dated August 11, 2022.	

EXAMINER SIGNATURE			
Examiner Signature	/JIMMY CHOU/	Date Considered	10/21/2022
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	TBA
	Examiner Name	TBA /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

	39.	5,725,261	A	03/10/1998	Rahn
	40.	5,840,189	A	11/24/1998	Sylvan et al.
	41.	5,888,549	A	03/30/1999	Buchholz et al.
	42.	5,895,672	A	04/20/1999	Cooper
	43.	5,897,899	A	04/27/1999	Fond
	44.	5,917,165	A	06/29/1999	Platt et al.
	45.	5,941,055	A	08/24/1999	Coates
	46.	5,948,455	A	09/07/1999	Schaeffer et al
	47.	5,980,743	A	11/09/1999	Bairischer
	48.	5,994,677	A	11/30/1999	Akerlind
	49.	6,025,000		02/15/2000	Fond et al.
	50.	6,153,026	A	11/28/2000	Michotte
	51.	6,199,780	B1	03/13/2001	Görlitz
	52.	6,202,929	A	03/20/2001	Verschuur et al.
	53.	6,213,326	B1	04/10/2001	Denner et al.
	54.	6,299,926	B1	10/09/2001	Balakrishnan et al.
	55.	6,440,256	B1	08/27/2002	Gordon et al.
	56.	6,451,332	B1	09/17/2002	Tanaka et al.
	57.	6,527,181	B1	03/04/2003	Kleeberg et al.
	58.	6,589,577	B2	07/08/2003	Lazaris et al.
	59.	6,598,800	A1	07/29/2003	Schmit et al.
	60.	6,607,762	B2	08/19/2003	Lazaris et al.
	61.	6,627,244	B2	09/30/2003	Omura
	62.	6,645,537	B2	11/11/2003	Sweeney et al.
	63.	6,655,260	B2	12/02/2003	Lazaris
	64.	6,817,538	B2	11/16/2004	Afzali-Ardakani et al.
	65.	6,861,086	B2	03/01/2005	Buckingham et al.
	66.	6,948,420	B2	09/27/2005	Kirschner et al.
	67.	6,994,879	B2	02/07/2006	Cirigliano et al.
	68.	7,408,094	B2	08/05/2008	Little et al.
	69.	7,444,925	B2	~~02/07/2006~~ 11-2008	~~Cirigli~~ Mahlich
	70.	7,464,518	B2	12/16/2008	Ansinn
	71.	7,543,527	B2	06/09/2009	Schmed
	72.	7,552,672	B2	06/30/2009	Schmed
	73.	7,595,870	B2	09/29/2009	Ringlien
	74.	7,673,558	B2	03/09/2010	Panesar et al.
	75.	7,685,930	B2	03/30/2010	Mandralis et al.
	76.	7,815,953	B2	10/19/2010	Mastropasqua et al.
	77.	7,856,920	B2	12/28/2010	Schmed et al.
	78.	7,935,646	B2	05/03/2011	Viazmensky et al.

Change(s) applied to document, /J.G./ 7/26/2022

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
	Filing Date	December 10, 2021
	First Named Inventor	Marc Krüger
	Art Unit	TBA
	Examiner Name	TBA /JIMMY CHOU/
	Attorney Docket Number	1859.029USC12

U.S. PATENTS					
Examiner Initials*	Cite No.	Patent Number	Kind Code	Issue Date	Name of Patentee or Applicant of cited Document
	1.	2,778,739		01/22/1957	Rodth
	2.	3,183,096		05/11/1965	Hiscock
	3.	3,501,896	A	03/24/1970	Stoeser et al.
	4.	3,521,207		07/21/1970	Britton et al.
	5.	3,631,793		06/23/1969	Bednartz
	6.	3,640,727		02/08/1972	Heusinkveld
	7.	4,136,202		01/23/1979	Favre
	8.	4,389,925		06/28/1983	Piana
	9.	4,534,985		08/13/1985	Gasau
	10.	4,540,595		09/10/1985	Acitelli et al.
	11.	4,644,151	A	05/12/1987	Piet
	12.	4,676,482	A1	11/04/1987	Marvin et al.
	13.	4,742,645		05/10/1988	Johnston
	14.	4,846,052		07/11/1989	Farve et al.
	15.	4,859,337		08/22/1989	Woltermann
	16.	4,860,645	A	08/29/1989	Van Der Lijn et al.
	17.	4,867,993		09/19/1989	Nordskog
	18.	4,976,179		12/11/1990	Lacrouts-Cazenave
	19.	5,012,629		05/07/1991	Rehman et al.
	20.	5,028,769	A	07/02/1991	Claypool et al.
	21.	5,108,768	A	04/28/1992	So
	22.	5,194,553	A	03/16/1993	Freeburne et al.
	23.	5,242,702	A	09/07/1993	Fond
	24.	5,243,164	A	09/07/1993	Erickson et al.
	25.	5,251,758	A	10/12/1993	Kolacek
	26.	5,285,041	A	02/08/1994	Wright
Change(s) applied to document, /J.G./ 7/26/2022	27.	5,325,765	A 07-1994	~~07/16/1996~~	~~Takashima~~ Sylvan et al.
	28.	5,402,707	A	04/04/1995	Fond et al.
	29.	5,460,078	A	10/24/1995	Weller
	30.	5,496,573	A	03/05/1996	Tsuji et al.
	31.	5,501,945	A	03/26/1996	Kanakkanatt
	32.	5,535,765	A	07/16/1996	Takashima
	33.	5,601,716	A	02/11/1997	Heinrich et al.
	34.	5,637,850	A	06/10/1997	Honda
	35.	5,656,311	A	08/12/1997	Fond
	36.	5,656,316		08/12/1997	Fond et al.
	37.	5,656,318	A	08/12/1997	Fond et al.
	38.	5,677,522	A	10/14/1997	Rice et al.

IPR2024-00239
Nespresso USA, Inc. Ex. 1002

UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/547,363	11/29/2022	11511933	1859.029USC12	6426

25215 7590 11/09/2022

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ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Patents Stakeholder Experience (OPSE), Stakeholder Support Division (SSD) at (571)-272-4200.

INVENTOR(s) (Please see PAIR WEB site http://pair.uspto.gov for additional inventors):

Marc Krüger, Bergisch Gladbach, GERMANY;

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

K-FEE SYSTEM GMBH, Bergisch Gladbach, GERMANY;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

PTO/SB/30EFS (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	17547363	Filing Date	2021-12-10	Docket Number (if applicable)	1859.029USC12	Art Unit	3761
First Named Inventor	Mark Krüger			Examiner Name	Chou, Jimmy		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

☐ Other _____

☒ Enclosed

☐ Amendment/Reply

☒ Information Disclosure Statement (IDS)

☐ Affidavit(s)/ Declaration(s)

☒ Other QPIDS Request

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____
(Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

☒ **The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**
The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 501097

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☒ Patent Practitioner Signature

☐ Applicant Signature

PTO/SB/30EFS (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Signature of Registered U.S. Patent Practitioner			
Signature	/Paul J. Palinski/	Date (YYYY-MM-DD)	2022-11-23
Name	Paul J. Palinski	Registration Number	71080

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	17547363
Filing Date:	10-Dec-2021
Title of Invention:	PORTION CAPSULE HAVING AN IDENTIFIER
First Named Inventor/Applicant Name:	Marc Krüger
Filer:	Paul J. Palinski/BECKY BALLARD
Attorney Docket Number:	1859.029USC12

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
PETITION FEE- 37 CFR 1.17(H) (GROUP III)	1464	1	140	140
RCE- 1ST REQUEST	1801	1	1360	1360
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**1500**

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

Decision Date : November 23, 2022

In re Application of :

Marc Krüger

DECISION ON PETITION

UNDER CFR 1.313(c)(2)

Application No : 17547363

Filed : 10-Dec-2021

Attorney Docket No : 1859.029USC12

This is an electronic decision on the petition under 37 CFR 1.313(c)(2), filed November 23, 2022to withdraw the above-identified application from issue after payment of the issue fee.

The petition is **GRANTED.**

The above-identified application is withdrawn from issue for consideration of a submission under 37 CFR 1.114 (request for continued examination). See 37 CFR 1.313(c)(2).

Petitioner is advised that the issue fee paid in this application cannot be refunded. If, however, this application is again allowed, petitioner may request that it be applied towards the issue fee required by the new Notice of Allowance.

Telephone inquiries concerning this decision should be directed to the Patent Electronic Business Center (EBC) at 866-217-9197.

This application file is being referred to Technology Center AU 3761 for processing of the request for continuing examination under 37 CFR 1.114 .

Office of Petitions

Electronic Acknowledgement Receipt

EFS ID:	47082363
Application Number:	17547363
International Application Number:	
Confirmation Number:	6426
Title of Invention:	PORTION CAPSULE HAVING AN IDENTIFIER
First Named Inventor/Applicant Name:	Marc Krüger
Customer Number:	25215
Filer:	Paul J. Palinski/BECKY BALLARD
Filer Authorized By:	Paul J. Palinski
Attorney Docket Number:	1859.029USC12
Receipt Date:	23-NOV-2022
Filing Date:	10-DEC-2021
Time Stamp:	12:28:33
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$1500
RAM confirmation Number	E2022AMC28282478
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	ePetition Request Form	petition-request.pdf	40024 f4bb6b36abbc5cffd59da4e586e947363f1af01a	no	2
Warnings:					
Information:					
2	Quick Path Information Disclosure Statement	Supplemental_IDS_1859_029USC12.pdf	116153 cc607c850e7a8e9c54ca4eaa96f2be8a65578718	no	5
Warnings:					
Information:					
3	Other reference-Patent/Application/ Search Documents	1_PetitionForInterPartes.pdf	5490546 06f2c7cedb156e892197a142a9de3ad4da2caf5c	no	105
Warnings:					
Information:					
4	Other reference-Patent/Application/ Search Documents	2_DeclarationOfMichaelJobinfiled.pdf	13011933 f7fd66015197b4a0596df9bfcab793e6ccc3e7bf	no	239
Warnings:					
Information:					
5	Other reference-Patent/Application/ Search Documents	3_EnglishMachineTranslationStatement20221031.pdf	611299 04b2dd459d72144f6326f1a92e0ff5aa3c62774d	no	3
Warnings:					
Information:					
6	Other reference-Patent/Application/ Search Documents	4_NestleStatementDatedOctober20_2022.pdf	682764 19cef500a5a0f5127689081723c57f1e551eca54	no	28
Warnings:					
Information:					

7	Quick Path Information Disclosure Statement	Quips_1859_029USC12.pdf	194292 804b8959dbe783577dea43c9a53cd2933e47e8b2	no	2
Warnings:					
Information:					
8	Request for Continued Examination (RCE)	RCE_1859_029USC12.pdf	85767 439513eeb6710bf18d87e7b137b90e61f38a1907	no	3
Warnings:					
This is not a USPTO supplied RCE SB30 form.					
Information:					
9	Fee Worksheet (SB06)	fee-info.pdf	40330 f235b2ef7a6049e8ca5591ed31b50030122959d6	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	20273108		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Doc Code: PET.AUTO Document Description: Petition automatically granted by EFS-Web	PTO/SB/140 U.S. Patent and Trademark Office Department of Commerce

Electronic Petition Request	**PETITION TO WITHDRAW AN APPLICATION FROM ISSUE AFTER PAYMENT OF THE ISSUE FEE UNDER 37 CFR 1.313(c)**
Application Number	17547363
Filing Date	10-Dec-2021
First Named Inventor	Marc Krüger
Art Unit	3761
Examiner Name	JIMMY CHOU
Attorney Docket Number	1859.029USC12
Title	PORTION CAPSULE HAVING AN IDENTIFIER

An application may be withdrawn from issue for further action upon petition by the applicant. To request that the Office withdraw an application from issue, applicant must file a petition under this section including the fee set forth in § 1.17(h) and a showing of good and sufficient reasons why withdrawal of the application from issue is necessary.

APPLICANT HEREBY PETITIONS TO WITHDRAW THIS APPLICATION FROM ISSUE UNDER 37 CFR 1.313(c).

A grantable petition requires the following items:
(1) Petition fee; and
(2) One of the following reasons:
(a) Unpatentability of one or more claims, which must be accompanied by an unequivocal statement that one or more claims are unpatentable, an amendment to such claim or claims, and an explanation as to how the amendment causes such claim or claims to be patentable;
(b) Consideration of a request for continued examination in compliance with § 1.114 (for a utility or plant application only); or
(c) Express abandonment of the application. Such express abandonment may be in favor of a continuing application, but not a CPA under 37 CFR 1.53(d).

Petition Fee

○	Small Entity
○	Micro Entity
◉	Regular Undiscounted

Reason for withdrawal from issue

◯ One or more claims are unpatentable ◉ Consideration of a request for continued examination (RCE) (List of Required Documents and Fees) ◯ Applicant hereby expressly abandons the instant application (any attorney/agent signing for this reason must have power of attorney pursuant to 37 CFR 1.32(b)).
RCE request,submission, and fee. ☐ I certify, in accordance with 37 CFR 1.4(d)(4) that : The RCE request ,submission, and fee have already been filed in the above-identified application on ☒ Are attached.
THIS PORTION MUST BE COMPLETED BY THE SIGNATORY OR SIGNATORIES I certify, in accordance with 37 CFR 1.4(d)(4) that I am: ◉ An attorney or agent registered to practice before the Patent and Trademark Office who has been given power of attorney in this application. ◯ An attorney or agent registered to practice before the Patent and Trademark Office, acting in a representative capacity. ◯ A sole inventor ◯ A joint inventor; I certify that I am authorized to sign this submission on behalf of all of the inventors as evidenced by the power of attorney in the application ◯ A joint inventor; all of whom are signing this e-petition

Signature	/Paul J. Palinski/
Name	Paul J. Palinski
Registration Number	71080

Filed Via EFS @ USPTO.gov on November 23, 2022
Docket No. 1859.029USC12 / KRU0022-WO-US-T13

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Marc Krüger	Art Unit: 3761
Application No.: 17/547,363	Examiner: Chou, Jimmy
Filed: 12/10/2021	Conf. No.: 6426

For: Portion Capsule Having An Identifier

Practitioner's Docket No. 1859.029USC12 / KRU0022-WO-US-T13

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

UNDER 37 C.F.R. §1.97(E)(2)

Applicant submits this statement in accordance with its duty of disclosure under 37 C.F.R. §§ 1.56, 1.97, and 1.98. The submission made herewith is in no way intended as an admission that the cited items constitute material prior art or otherwise would render the claims unpatentable in any way.

The submission and remarks/statements contained herein also is in no way intended to substitute for the Examiner's own independent investigation. Nothing in this Submission or in any other Submission should be regarded as a disclaimer of claim scope. No remark/statement by Applicant or Applicant's related companies in this or any foreign proceeding should be regarded as a disclaimer or other surrender of claim scope in this proceeding.

E(2) Certification: No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of the information disclosure statement.

Applicant Statement on the Petition For Inter Partes Review of US 11,254,491

A Petition For Inter Partes Review ("IPR Petition") was filed by Petitioner Nespresso USA, Inc. against Applicant's commonly owned US Patent No. 11,254,491. A copy of the IPR Petition is submitted herewith as NPL Cite No. 1. As noted on page 82 of the IPR Petition, "Nestlé USA,

IPR2024-00239
Nespresso USA, Inc. Ex. 1002
Page 585 of 598

Inc., Nestlé Nespresso SA, and Société Des Produits Nestlé SA are real parties-in-interest with Petitioner" Nespresso USA, Inc.

I. Alleged Lack of Entitlement to the Priority Date

In the IPR Petition, Petitioner again raises a lack of entitlement to the priority date, a topic that Petitioner has previously raised in three (3) prior IPR Petition filings against Applicant's other patents in this patent family, which the USPTO PTAB declined to institute and also denied Petitioner's rehearing requests. The Examiner is kindly encouraged to review the 3 previous IPR Petition filings, which Applicant has made available in previous IDS submissions, the PTAB decisions denying institution of Petitioner's 3 previous IPR filings, and the PTAB subsequent rehearing denials, all of which can be easily accessed from the USPTO PTAB website under the following AIA Review Numbers:

- IPR2021-01221
- IPR2021-01222
- IPR2021-01223

The topic of priority entitlement has also been discussed and addressed numerous times by Applicant in detail and on the record in multiple communications with the USPTO in multiple patent applications in this patent family. For example, Applicant's discussions with the USPTO regarding priority can be found in at least the following applications in this patent family:

- US 16/538,752 (now US Patent No. 10,858,176): See Applicant remarks filed on July 27, 2020.
- US 16/860,441 (now US Patent No. 10,870,531): See Applicant remarks filed on October 13, 2020.
- US 17/670,629 (now US Patent No. 11,465,829): See Interview Summary Dated July 05, 2022; Applicant remarks filed on July 15, 2022; and the Examiner's comment included in the Notice of Allowance dated August 12, 2022.
- US 17/670,765 (now US Patent No. 11,465,830): See Interview Summary Dated July 05, 2022; Applicant remarks filed on July 15, 2022; and the Examiner's comment included in the Notice of Allowance dated August 11, 2022.

- US 17/547,363: See Interview Summary Dated June 17, 2022; Applicant remarks filed on July 01, 2022; and the Examiner's comment included in the Notice of Allowance dated July 19, 2022.

II. Petition Grounds

The newly filed IPR Petition relies on two (2) grounds, which are summarized on page 30 of the IPR Petition. The grounds rely on a combination of references including: Yoakim (US2010/0239734A1), Jarisch (US2013/0064929A1), Rossi (WO2010/099806A1), and Castellani (US2008/0105131). Petitioner acknowledges on Page 19 of the IPR Petition that these references "were all cited, directly or indirectly, in a series of IDSs" by Applicant.

Petitioner also cites more than 3 pages of references and documents in Petitioner's Exhibit List on pages x-xiii of the IPR Petition, many of which have also already been before the Office in various IDS submission and previous IPR filings. Nonetheless, Applicant respectfully requests the Examiner review the references and documents in Petitioner's Exhibit List.

A. The Jarisch Reference (US2013/0064929A1)

The IPR Petition relies on the Jarisch Reference (US2013/0064929A1) in both grounds. Because Applicant believes it is entitled to at least the September 2010 priority date, the Jarisch reference is not prior art. However, Applicant notes that the Jarisch reference was considered by several different USPTO Examiners in various art units examining Applicant's other co-pending Applications, which ultimately issued as numerous US Patents (See References Cited in US Patent Nos. US10,858,176; US10,858,177; US10,870,531; US10,994,923; US11,465,829; US11,465,830; 11,230,430). The Jarisch reference has also been presented to the Office in Applicant's other pending US Applications currently undergoing examination (See US 15646980 and US 17844372). The Jarisch reference was also presented in Petitioner's 3 prior IPR Filings.

B. The Rossi Reference (WO 2010/099806)

Petitioner alleges in the IPR Petition that the Rossi reference WO 2010/099806 contains disclosure of the patentable subject matter that was identified by the US Examiner in 17/383,951 (See non-final office action dated 11-29-2021; i.e., a pump controlled to supply water into the single-serve capsule only upon detection of the identifier by the sensor/detector and a

determination by the beverage machine that the single-serve capsule is suitable for use with the beverage machine.). Applicant notes that the Rossi reference was relied upon by a USPTO Examiner in an office action in another application in this patent family - US 16/538,752, now US Patent No. 10,858,176 (See Non-Final Office Action dated November 08, 2019). Applicant respectfully requests the Examiner undertake an independent review of the Rossi reference and consider the Rossi teachings, as interpreted in the IPR Petition. Applicant makes no statement or disclaimer on the Rossi teachings or how it is interpreted by Petition in the IPR Petition. Lastly, Applicant requests the Examiner monitor the status of IPR2022-01574.

To the extent that the Examiner desires any further information on any of the documents or remarks included in this IDS, the Examiner is kindly requested to inform the Undersigned, who can be reached via direct dial telephone at 248-309-3045.

Date: November 23, 2022

/Paul J. Palinski/

Paul J. Palinski
Reg. No. 71,080
Attorney for Applicant
The Dobrusin Law Firm, P.C.
29 W. Lawrence Street - Suite 210
Pontiac, MI 48342
(248) 292-2920

Customer No. 25215

IPR2024-00239
Nespresso USA, Inc. Ex. 1002
Page 588 of 598

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
	Filing Date	12/10/2021
	First Named Inventor	Marc Krüger
	Art Unit	3761
	Examiner Name	Chou, Jimmy
	Attorney Docket Number	1859.029USC12

NON-PATENT LITERATURE DOCUMENTS			
Examiner Initial*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1.	Petition For Inter Partes Review of U.S. Patent No. 11,254,491 (IPR2022-01574), including the references included in Petitioner's Exhibit List.	
	2.	Declaration of Michael Jobin filed with the Petition For Inter Partes Review of U.S. Patent No. 11,254,491 (IPR2022-01574).	
	3.	English Machine Translation of the Statement filed by Nestlé Nespresso SA on October 31, 2022 in the pending foreign proceeding in Switzerland.	X
	4.	English Machine Translation of the Statement filed by Société des Produits Nestlé S.A.on October 20, 2022 in the Federal Patent Court in Switzerland.	X
	5.	Applicant statements included in the IDS Transmittal Letter filed on November 23, 2022 (i.e., "Applicant Statement on the Petition For Inter Partes Review of US 11,254,491")	

EXAMINER SIGNATURE			
Examiner Signature		Date Considered	
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

PTO/SB/09 (09-18)

CERTIFICATION AND REQUEST FOR CONSIDERATION OF AN INFORMATION DISCLOSURE STATEMENT FILED AFTER PAYMENT OF THE ISSUE FEE UNDER THE QPIDS PROGRAM

Non-Provisional Application Number: 17/547,363	Filing Date: December 10, 2021
First Named Inventor: Marc Krüger	Title of Invention: PORTION CAPSULE HAVING AN IDENTIFIER

THE UNDERSIGNED HEREBY CERTIFIES AND REQUESTS THE FOLLOWING FOR THE ABOVE-IDENTIFIED APPLICATION.

1. Consideration is requested of the information disclosure statement (IDS) submitted herewith, which is being filed after payment of the issue fee.
2. Check the box next to the appropriate selection:

   ☐ Each item of information contained in the IDS was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the IDS. See 37 CFR 1.97(e)(1).

   OR

   ☑ No item of information contained in the IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the IDS was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the IDS. See 37 CFR 1.97(e)(2).

   OR

   ☐ See attached certification statement in compliance with 37 CFR 1.97(e).
3. Please charge the IDS fee set forth in 37 CFR 1.17(p) to Deposit Account No. 50-1097.
4. A Petition to Withdraw from Issue After Payment of the Issue Fee (37 CFR 1.313(c)(2)), including the petition fee set forth in 37 CFR 1.17(h), is submitted herewith as a **Web-based ePetition**. **WARNING:** Do not submit the petition as a follow-on paper via EFS-Web. Submit the petition as a Web-based ePetition by signing on to EFS-Web as a registered user, selecting the radio button next to "Existing application/patent," and then selecting the radio button next to "ePetition (for automatic processing and immediate grant, if all petitions requirements are met)." Failure to use the Web-based ePetition interface will result in automatic entry of the RCE.
5. A request for continued examination (RCE) under 37 CFR 1.114 and the RCE fee under 37 CFR 1.17(e) are submitted herewith.
6. The RCE will be treated as a "conditional" RCE. In the event the examiner determines that any item of information contained in the IDS necessitates the reopening of prosecution in the application, the undersigned understands that (i) the RCE will be processed and treated as an RCE under 37 CFR 1.114 and therefore (ii) the IDS fee under 37 CFR 1.17(p) will be returned in accordance with 37 CFR 1.97(b)(4). In the event that no item of information in the IDS necessitates reopening prosecution, the undersigned understands that the RCE will not be processed and the RCE fee under 37 CFR 1.17(e) will be returned.
7. This certification and request is being filed as a **Web-based ePetition** and is not accompanied by an amendment to the application. Inclusion of an amendment will result in automatic entry of the RCE.

Signature /Paul J. Palinski/	Date November 23, 2022
Name (Print/Typed) Paul J. Palinski	Practitioner Registration Number (If applicable) 71,080

Note: *Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required in accordance with 37 CFR 1.33 and 11.18. Please see 37 CFR 1.4(d) for the form of the signature. If necessary, submit multiple forms for more than one signature, see below.**

☑ *Total of 1 forms are submitted.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.



United States Patent and Trademark Office

Office of the Chief Financial Officer

Document Code:WFEE

User :Karen Vestal

Sale Accounting Date:11/25/2022

Sale Item Reference Number	Effective Date
17547363	11/23/2022

Document Number	Fee Code	Fee Code Description	Amount Paid	Payment Method
I2022AO948500986	1806	SUBMISSION- INFORMATION DISCLOSURE STMT	$260.00	Deposit Account

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UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/547,363	12/10/2021	Marc Krüger	1859.029USC12	6426

25215 7590 11/30/2022

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EXAMINER	
CHOU, JIMMY	

ART UNIT	PAPER NUMBER
3761	

NOTIFICATION DATE	DELIVERY MODE
11/30/2022	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

dobrusin_PAIR@firsttofile.com
patmail@patentco.com
rmasquelier@patentco.com

Corrected ***Notice of Allowability***	**Application No.** 17/547,363	**Applicant(s)** Krüger, Marc	
	Examiner JIMMY CHOU	**Art Unit** 3761	**AIA (FITF) Status** No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☑ This communication is responsive to 11/23/2022.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are 10-29 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☑ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☑ All b) ☐ Some* c) ☐ None of the:

   1. ☑ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.
5. ☐ Examiner's Amendment/Comment
6. ☐ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/JIMMY CHOU/
Primary Examiner, Art Unit 3761

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	17/547,363
	Filing Date	12/10/2021
	First Named Inventor	Marc Krüger
	Art Unit	3761
	Examiner Name	Chou, Jimmy
	Attorney Docket Number	1859.029USC12

NON-PATENT LITERATURE DOCUMENTS			
Examiner Initial*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1.	Petition For Inter Partes Review of U.S. Patent No. 11,254,491 (IPR2022-01574), including the references included in Petitioner's Exhibit List.	
	2.	Declaration of Michael Jobin filed with the Petition For Inter Partes Review of U.S. Patent No. 11,254,491 (IPR2022-01574).	
	3.	English Machine Translation of the Statement filed by Nestlé Nespresso SA on October 31, 2022 in the pending foreign proceeding in Switzerland.	X
	4.	English Machine Translation of the Statement filed by Société des Produits Nestlé S.A.on October 20, 2022 in the Federal Patent Court in Switzerland.	X
	5.	Applicant statements included in the IDS Transmittal Letter filed on November 23, 2022 (i.e., "Applicant Statement on the Petition For Inter Partes Review of US 11,254,491")	

EXAMINER SIGNATURE			
Examiner Signature	/JIMMY CHOU/	Date Considered	11/28/2022
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

United States Patent and Trademark Office

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Document Code:WFEE

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Refund Accounting Date:12/06/2022

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Sale Adjustment Accounting Date:12/06/2022

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/547,363	01/03/2023	11542094	1859.029USC12	6426

25215 7590 12/14/2022

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ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Patents Stakeholder Experience (OPSE), Stakeholder Support Division (SSD) at (571)-272-4200.

INVENTOR(s) (Please see PAIR WEB site http://pair.uspto.gov for additional inventors):

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APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

K-FEE SYSTEM GMBH, Bergisch Gladbach, GERMANY;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.