

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

EXTRACTIONTEK SALES LLC,
Petitioner,

v.

GENE POOL TECHNOLOGIES, INC.,
Patent Owner.

IPR2022-00625
Patent 9,587,203 B2

Before JEFFREY N. FREDMAN, CYNTHIA M. HARDMAN, and
JAMIE T. WISZ, *Administrative Patent Judges*.

HARDMAN, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Petitioner ExtractionTek Sales LLC requests *inter partes* review of claims 1–20 of U.S. Patent No. 9,587,203 B2 (“the ’203 patent,” Ex. 1001). Paper 1 (“Pet.”). Patent Owner Gene Pool Technologies, Inc. filed a Preliminary Response. Paper 12 (“Prelim. Resp.”).

Considering the arguments and evidence of record, we determine that the Petition demonstrates “a reasonable likelihood that petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). Thus, we institute an *inter partes* review.

The following preliminary findings of fact and conclusions of law are made solely for determining whether to institute review. Any final decision will be based on the full trial record.

A. *Real Parties in Interest*

The parties identify themselves as the real parties in interest. Pet. 2;¹ Paper 8, 1.

B. *Related Matters*

Petitioner states that the ’203 patent is among several patents asserted in *Gene Pool Technologies, Inc. v. ANM, Inc.*, Case No. 1:21-cv-01154-CL (D. Oregon). Pet. 2. According to Petitioner, this case was transferred to the United States District Court for the Central District of California and captioned *Gene Pool Technologies, Inc. v. ANM, Inc.*, Case No. 2:21-cv-08756-JWH-SHK, and was then consolidated into *Gene Pool Technologies,*

¹ Petitioner states that it has “two trade names: ExtractionTek Solutions and ExtractionTek Stainless.” Pet. 2.

Inc. v. Coastal Harvest, LLC, Case No. 5:21-cv-01328-JWH-SHK (C.D. California) (the “California Action”). *Id.* at 2–3.

Patent Owner identifies the California Action and *Gene Pool Technologies, Inc. v. ANM, Inc.*, 2:21-cv-08756 (C.D. California) as related matters. Paper 8, 1.

Patent Owner identifies related U.S. Patent Nos. 9,682,333, 9,926,513, 10,595,555, and 10,974,165. *Id.* at 2.

Although not identified by either party, we note that Petitioner filed IPR2022-00832 against Patent Owner’s U.S. Patent No. 9,145,532, which is related to the ’203 patent.² Petitioner also filed IPR2022-01011 against Patent Owner’s U.S. Patent No. 9,144,751 B2.

C. The ’203 Patent (Ex. 1001)

The ’203 patent, titled “Methods for Extracting Solute from a Source Material,” relates to “systems for extracting solute from source materials.” Ex. 1001, code (54), 1:14–15. According to the Specification, “many existing systems are configured to extract solute from a single container of source material,” and are thus “unable to simultaneously extract solute from materials stored in a plurality of distinct containers,” leading to a “bottleneck.” *Id.* at 1:20–26. The Specification also states that “many conventional extraction systems do not allow extraction to be performed in a single, closed loop process that reclaims solvent and re-introduces the reclaimed solvent in subsequent cycles of the system,” and that manual reclaiming and reuse of solvent is inefficient. *Id.* at 1:32–38. The

² We remind the parties of their continuing obligation to update their Mandatory Notices. *See* 37 C.F.R. § 42.8(a)(3).

Specification states that “there exists a need for cooling reclaimed solvent to a liquid state prior to collecting the solvent” because “[l]iquid solvent may be more efficiently stored” than gaseous solvent. *Id.* at 1:51–54.

Figure 1 of the '203 patent is reproduced below.

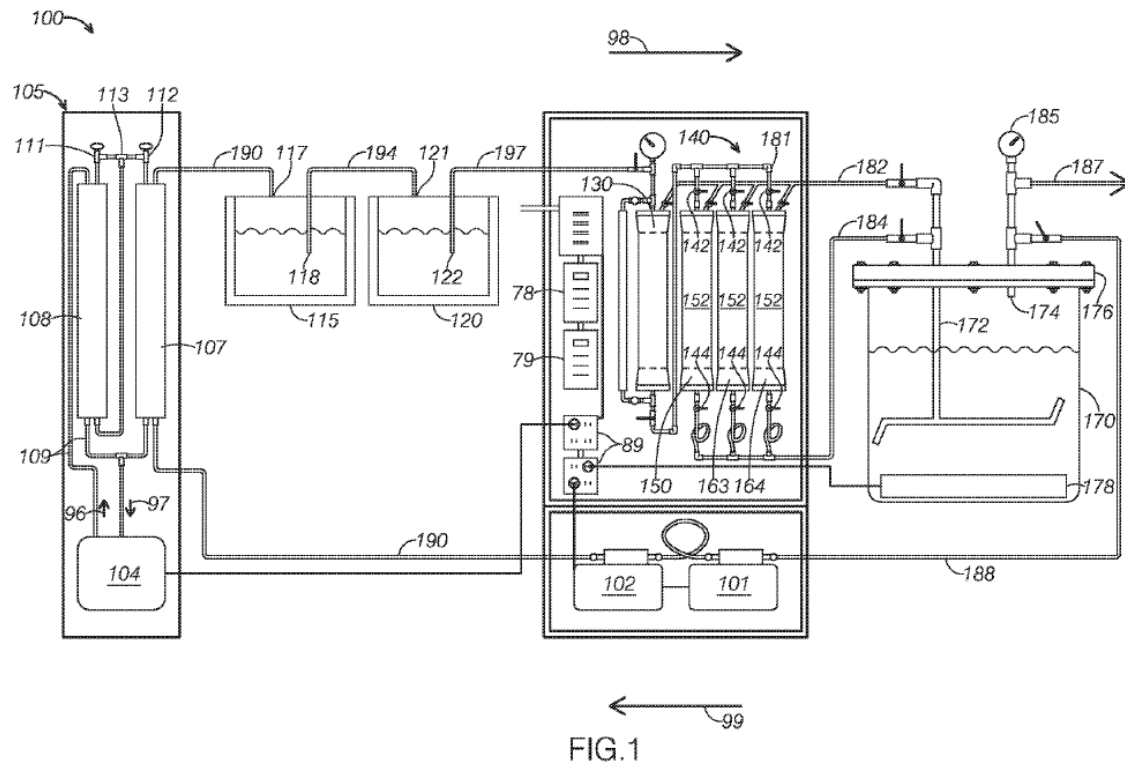


Figure 1, reproduced above, depicts a system for extracting solvent from a source material. *Id.* at 2:19–20. The system includes solvent source container 120, solvent compressor 130, detachable canister system 140, extract container 170, first pump 101, second pump 102, condensing system 105, and solvent collection container 115. *Id.* at 3:5–11.

The Specification explains that “[s]ource container output 122 is configured to direct solvent contained in solvent source container 120 to

solvent compressor 130 via a solvent source line 197.”³ *Id.* at 3:64–66. The Specification states that “solvent source line 197 may include an internal filter,” which “may be used to remove impurities in solvent prior to introducing the solvent to detachable canister system 140.” *Id.* at 4:2–5. The Specification explains that “[s]olvent compressor 130 may be used to compress solvent to an extraction pressure, the extraction pressure selected to maintain solvent in a liquid state even when exposed to an elevated extraction temperature.” *Id.* at 4:55–59.

According to the Specification, “detachable canister system 140 allows a user to refill a selected canister as one or more of the other canisters remain closed and to continue extracting solute from contained source material.” *Id.* at 5:23–28. Additionally, “solvent compressor 130 is configured to communicate with each detachable canister individually.” *Id.* As a result, “when one canister is attached and extracting, solvent compressor 130 may charge solvent for a second canister.” *Id.* at 6:23–25.

The Specification describes an example in which butane is used to extract essential oils from lavender plants contained within a canister to produce an extract solution. *Id.* at 3:18–25. The extract mixture is heated “to a distilling temperature to produce an evaporated portion of the solvent in extract container 170” and “[t]he distilling temperature to which extract container 170 is heated is greater than the boiling point of butane and less than typical essential oil boiling points.” *Id.* at 8:30–36. Condensing system 105 is configured to cool post-extraction solvent before the solvent reaches

³ Throughout this Decision, we omit bolding of reference numbers in quotes from the challenged patent and prior art references.

solvent collection container 115, which is in fluid communication with solvent source container 120. *Id.* at 3:51–54.

D. The Challenged Claims

Petitioner challenges all 20 claims of the '203 patent. Claims 1, 15, and 18 are independent. Claim 1, reproduced below with bracketed letter and number designations added, is illustrative:

1. A method for extracting solute from a source material, the method comprising:
 - [1(a)] depositing the source material having a solute in a canister;
 - [1(b)] introducing a solvent into the canister;
 - [1(c)] exposing the source material to the solvent to create an extract mixture having the solute in solution with the solvent;
 - [1(d)] fluidly communicating the extract mixture to one or more extract containers, the one or more extract containers being in fluid communication with the canister;
 - [1(e)] separating the solute from the extract mixture to define a recycled solvent by heating the one or more extract containers to evaporate the recycled solvent;
 - [1(f)] collecting the recycled solvent in a solvent collection container in fluid communication with the one or more extract containers; and
 - [1(g)] cooling the recycled solvent within the solvent collection container.

Ex. 1001, 21:63–22:14.⁴

Independent claims 15 and 18 contain features similar to independent claim 1, with a few differences. For example, claim 15 recites “cooling the evaporated solvent to a temperature below the boiling point of the solvent to

⁴ For ease of reference, we adopt the letter and number designations Petitioner uses in the Petition. *See* Pet. 22 n.1.

define a recycled liquid solvent.” *Id.* at 23:17–19. Claim 18 recites “wherein the one or more extract containers comprise a first extract container and a second extract container.” *Id.* at 24:16–17.

The challenged dependent claims add additional features. For example, claims 2–6 depend directly or indirectly from claim 1 and relate to coupling or uncoupling the canister and extract container(s). *Id.* at 22:15–40. Claims 19 and 20 depend directly or indirectly from independent claim 18 and recite similar limitations. *Id.* at 24:21–37.

Claim 7 depends from claim 1 and requires the heating step to comprise heating the one or more extract containers to a temperature greater than a boiling point of the solvent and less than a boiling point of the solute. *Id.* at 22:41–47. Claim 8 depends from claim 7 and requires that the collection of recycled solvent comprise displacing the recycled solvent, in vapor form, via a pump from the one or more extract containers to the solvent collection container. *Id.* at 22:48–52.

Claims 9–12 depend directly or indirectly from claim 1 and relate to a cooling mechanism coupled to the solvent storage container or maintaining the solvent below its boiling point. *Id.* at 22:53–67. Claims 16–17 depend directly or indirectly from independent claim 15 and recite similar limitations. *Id.* at 23:27–36.

Claim 13 depends from claim 1 and requires that the source material is a plant material and the solute is an essential oil. *Id.* at 23:1–3. Claim 14 depends from claim 1 and recites that the solvent is butane. *Id.* at 23:4–5.

E. The Asserted Grounds of Unpatentability

Petitioner asserts that claims 1–20 are unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1, 7, 9–13, 15–17	§ 102	Britt ⁵
2–6, 8, 14, 18–20	§ 103	Britt, Buese, ⁶ Main ⁷
1–13, 18–20	§ 103	Hebert, ⁸ Buese, Main
15–17	§ 103	Hebert, Britt

Pet. 5–6. Petitioner support its contentions with the Declaration of Fritz Chess. Ex. 1003.

II. ANALYSIS

A. Discretionary Denial Under § 314(a)

The parties dispute whether the Board should discretionarily deny the Petition under 35 U.S.C. § 314(a) in view of the California Action. Prelim. Resp. 18–37; Pet. 55–57. Although Petitioner is not a party to the California Action (Pet. 56), Patent Owner asserts that Petitioner “is the supplier of certain of the accused products” and is coordinating with the litigation defendants concerning the litigation and/or the Petition. Prelim. Resp. 21.

Institution of an *inter partes* review is discretionary. *See* 35 U.S.C. § 314(a); *SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1356 (2018). When

⁵ Britt, U.S. Patent Pub. 2006/0041154 A1, published February 23, 2006 (“Britt,” Ex. 1006).

⁶ Buese et al., U.S. Patent No. 9,242,189 B2, issued January 26, 2016 (“Buese,” Ex. 1007).

⁷ Main, U.S. Patent No. 2,457,251, issued December 28, 1948 (“Main,” Ex. 1008).

⁸ Hebert et al., U.S. Patent No. 5,516,923, issued May 14, 1996 (“Hebert,” Ex. 1009).

determining whether to exercise discretion to deny institution in view of a parallel litigation, we consider the following factors:

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board's exercise of discretion, including the merits.

Apple Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11 at 6 (PTAB Mar. 20, 2020) (precedential) ("*Fintiv*"); *see also* Memorandum, Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (USPTO June 21, 2022).⁹

We address the *Fintiv* factors below and discuss our reasons for not exercising discretion to deny institution based on § 314(a).

1. Likelihood of a Stay

Patent Owner indicates that after Petitioner filed the Petition, a defendant in the California Action filed a motion to stay that action based on the filing of the Petition. Prelim. Resp. 24–25. Our review of the docket in the California Action indicates that after Patent Owner filed its Preliminary

⁹ Available at https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf.

Response, Judge Holcomb¹⁰ denied the motion to stay without prejudice. *See* Ex. 3001 at 8 (docket item 65). The defendant has since filed a renewed motion to stay, which remains pending. *See id.* (docket item 66).

We will not speculate on whether Judge Holcomb will grant the pending motion to stay. Accordingly, this factor is neutral.¹¹ *See, e.g., Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 14 (PTAB Dec. 1, 2020) (precedential as to § II.A).

2. *Proximity of Trial Date to Projected Statutory Deadline*

To date, Judge Holcomb has not set a trial date in the California Action. Pet. 56; Prelim. Resp. 28. Although the litigants have proposed trial dates (*see* Prelim. Resp. 28–29), we will not speculate about what trial date Judge Holcomb will set and its proximity to our projected statutory deadline to issue a final written decision in this proceeding. Thus, this factor weighs against discretionary denial. *See, e.g., London Luxury LLC v. E & E Co., Ltd.*, PGR2021-000083, Paper 10 at 10 (PTAB Nov. 15, 2021).

3. *Investment in the Parallel Proceeding*

Petitioner characterizes the investment in the California Action as “minimal,” while Patent Owner characterizes it as “substantial.” Pet. 56; Prelim. Resp. 31. Even assuming, as Patent Owner asserts, the parties have

¹⁰ The California Action is pending before Judge John W. Holcomb. *See* Prelim. Resp. 20.

¹¹ We decline Patent Owner’s invitation for the Board “to adopt a rule whereby a delay in seeking a stay – either to seek favorable orders in the district court or due to a concern that a stay would be denied – should be found to weigh against institution.” Prelim. Resp. 28. On this record, we will not speculate about the motives of the defendant in the California Action regarding the timing of filing of its motions to stay.

exchanged infringement and invalidity contentions (Prelim. Resp. 30–31), and acknowledging that Judge Holcomb has provided the parties with a tentative claim construction order in advance of the May 19, 2022 claim construction hearing (*see* Ex. 2006), the record indicates that substantial work remains to be completed. For example, Judge Holcomb ordered supplemental claim construction briefing, such that claim construction remains incomplete and no claim construction order has issued. *See* Ex. 2006 (ordering supplemental briefing). Additionally, fact discovery remains open, dispositive motions are not yet due, and expert discovery and pre-trial preparation must be completed. *See* Ex. 2004, 8 (proposals for case deadlines including fact and expert discovery, dispositive motions, and trial preparation activities). Because much work remains to be done in the California Action, this factor weighs against discretionary denial. *See, e.g., Sotera Wireless, Inc.*, Paper 12 at 16–17.

4. *Overlap of Issues*

Patent Owner asserts that “Petitioner asserts the same prior art references against the same claims using substantially the same arguments as those presented in the co-pending litigation.” Prelim. Resp. 33. Patent Owner, however, does not direct us to evidence substantiating the alleged overlap. Moreover, even assuming overlap, given the lack of trial date, on this record it is not clear that there would be duplication of effort or inefficiencies. Accordingly, this factor is neutral.

5. *Identity of Parties*

Petitioner is not party to the California Action. Pet. 56; Prelim. Resp. 34. Patent Owner asserts, however, that “Petitioner is absolutely involved in the co-pending litigation,” as “established by (1) the extensive

communication between Petitioner and Defendants (Ex. 2002 at Pages 12-17.); (2) the claim of common interest privilege to withhold those communications from discovery (*id.*); (3) the pre-existing contractual relationship (supplier/customer) between Petitioner and Defendants; [and] (4) the identity of prior art references asserted in the Petition and those asserted by Defendants in their invalidity contentions.” Prelim. Resp. 34–35; *see also id.* at 21–22, 26, 33, 34–36. Patent Owner also asserts that “Defendants are a real party in interest to this proceeding,” and while “that showing is not necessary for this factor to weigh against institution, it ought to be viewed as sufficient to establish that the parties are closely related such that this factor should weight against institution.” *Id.* at 36.

There is no dispute that Petitioner is *not* a party to the California Action. Pet. 56; Prelim. Resp. 34. However, even where the petitioner is not a defendant in the parallel litigation, the Board may exercise its authority to deny institution to avoid duplicative efforts. *See Fintiv*, Paper 11 at 14. Here, we need not decide whether Petitioner and the defendants in the California Action are coordinating with respect to the litigation and/or this Petition because, even assuming such coordination, as discussed above we are unable to ascertain the extent of overlap and thus duplication of efforts between this proceeding and the California Action. We note, however, that on this record, the potential for duplication of efforts appears to be low, given that no trial date has been set in the California Action and that to date, investment in the litigation has not been substantial. Accordingly, this factor weighs against discretionary denial or is at most neutral.

6. *Other Circumstances, Including the Merits*

The parties dispute whether the merits favor institution or discretionary denial. Pet. 57; Prelim. Resp. 36–37. We find that Petitioner’s anticipation ground—which stands unrebutted on the current record—is strong, and Petitioner’s obviousness challenges meet the standard for institution. On balance, this factor weighs against discretionary denial.

7. *Holistic Assessment of Factors*

In view of the *Fintiv* factors as presented in this case, and taking “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review” (*Fintiv*, Paper 11 at 6), we decline to exercise our discretion to deny *inter partes* review.

B. *Level of Ordinary Skill in the Art*

We consider the grounds of unpatentability in view of the understanding of a person of ordinary skill in the art as of the effective filing date of the challenged claims. Petitioner contends that one of ordinary skill in the art would typically have either:

- (1) a bachelor’s degree in mechanical engineering, chemical engineering, petroleum engineering, or an equivalent field; and some academic or industry experience working with, designing, or studying methods of extracting solute from a source material or similar devices; or
- (2) at least four years of industry experience working with, designing, or studying methods of extracting solute from a source material or similar devices.

Pet. 17 (citing Ex. 1003 ¶ 11). For purposes of the Preliminary Response, “Patent Owner does not dispute Petitioner’s definition.” Prelim. Resp. 2.

Because Petitioner’s proposed level of ordinary skill in the art is undisputed and consistent with the cited prior art, we adopt it for purposes of this Decision.

C. Claim Construction

In an *inter partes* review, we interpret a claim “using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b).” 37 C.F.R. § 42.100(b). Under this standard, we construe the claim “in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” *Id.*

Petitioner asserts that “the claim terms should be construed according to their ordinary and customary meaning,” but also notes that certain terms “warrant clarification.” Pet. 18. Patent Owner “requests that the Board adopt the ordinary and customary meaning of the claim terms as understood by one of ordinary skill in the art.” Prelim. Resp. 3. Patent Owner does not address Petitioner’s “clarifications” or offer any other proposed constructions.

For purposes of this Decision, we provide preliminary constructions for the terms “canister,” “extract container,” and “solvent collection container.” At this stage we need not construe two additional terms Petitioner addresses (i.e., “essential oil” and “boiling point”), or any other term. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

Any final written decision entered in this case may include final claim constructions that differ from the preliminary understanding of the claims set forth below, or from any discussion of claim scope provided in our analysis below. Any final claim constructions will be based on the full trial record.

1. *“canister”*

Petitioner contends that the claimed “canister” “serves as a repository of a source material,” and “[w]ithin the canister, the source material is exposed to a solvent to create an extract mixture.” Pet. 18 (citing Ex. 1001, 2:1–3). We adopt this understanding of the term “canister,” because it is supported by the cited portion of the Specification.

2. *“extract container”*

Petitioner contends that the claimed “extract container” “serve[s] as a repository for the extract mixture created in the ‘canister’, wherein the extract container is configured to evaporate the solvent to separate the solvent from the extract solution.” Pet. 18–19 (citing Ex. 1001, 3:30–39). We adopt this understanding of the term “extract container,” because it is supported by the cited portion of the Specification. *See also* Ex. 1001, 3:44–45 (noting that the extract container is configured to separate the solvent from the extracted solute).

3. *“solvent collection container”*

Petitioner contends that the claimed “solvent collection container” “serve[s] as a repository for post-process solvent separated from the extract solution in the ‘extract container(s)’, wherefrom the solvent is reused in following extraction processes.” Pet. 19 (citing Ex. 1001, 3:40–50, 4:30–40). We adopt this understanding of the term “solvent collection

container(s),” because it too is supported by the cited portions of the Specification.

D. Alleged Anticipation

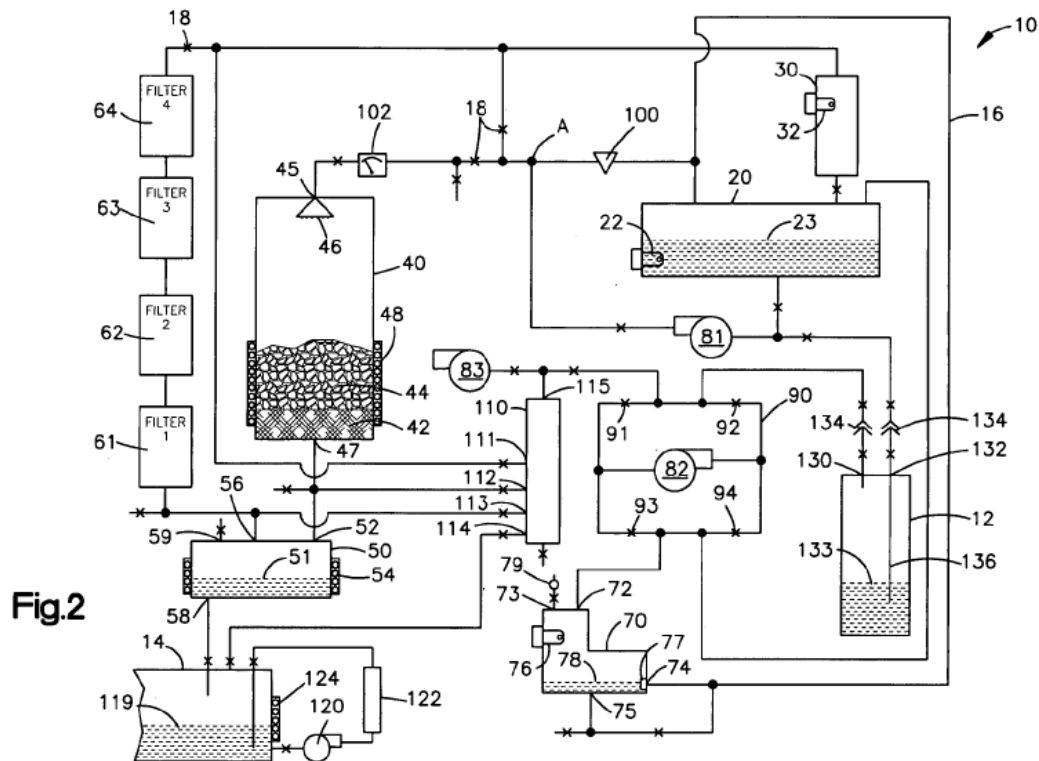
Petitioner asserts that Britt anticipates claims 1, 7, 9–13, and 15–17 under 35 U.S.C. § 102. Pet. 20. For the reasons discussed below, on this record, we determine that Petitioner has shown a reasonable likelihood of establishing that Britt anticipates claims 1, 7, 9–13, and 15–17.

1. Legal Standards

To show anticipation under 35 U.S.C. § 102, each and every claim element, arranged as in the claim, must be found in a single prior art reference. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359 (Fed. Cir. 2008). To find anticipation, however, the prior art need not use the same words as the claims. *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009). Moreover, in evaluating an alleged anticipatory prior art reference, it is permissible to consider not only the literal teachings of the reference, but also the inferences a person of ordinary skill in the art would draw from the reference. *Eli Lilly and Co. v. Los Angeles Biomedical Res. Inst.*, 849 F.3d 1073, 1074–75 (Fed. Cir. 2017).

2. Overview of Britt (Ex. 1006)

Britt, titled “Oil Extraction Method,” “relates to methods for extracting oils from oil bearing materials.” Ex. 1006, code (54), ¶ 2. We reproduce Britt’s Figure 2 below.



Britt's Figure 2, reproduced above, is a schematic diagram of an oil extraction system, which can be used to extract oil from plant materials. *Id.* ¶¶ 5–6, 10. During system operation, plant materials such as rose petals 44 are placed in extraction tank 40. *Id.* ¶¶ 13, 23. Solvent 23 is pumped from reservoir 20 through the rose petals to extract rose oil and yield a mixture of solvent and oil. *Id.* ¶¶ 12, 13. Distillation tank 50 receives the solvent/oil mixture from extraction tank 40. *Id.* ¶ 14. The mixture is heated “to a temperature that is high enough to evaporate the solvent, but low enough to avoid decomposing or evaporating the oil.” *Id.* ¶¶ 28, 14. Evaporated solvent vapor flows out of distillation tank 50, leaving the oil in distillation tank 50. *Id.* ¶¶ 15, 28. The solvent continues through filter tanks 61–64 to remove particles, water, and acid, and then flows through chiller 30 back to the reservoir 20. *Id.* ¶¶ 15, 28. Chiller 30 has a cooling coil 22 for

condensing solvent vapor into a liquid and maintaining the solvent in the liquid phase. *Id.* ¶ 12.

3. *Analysis*

On this record, Petitioner comes forward with argument and evidence that shows a reasonable likelihood that Britt anticipates claims 1, 7, 9–13, and 15–17. *See* Pet. 20–26. For example, with respect to claim 1, Petitioner asserts that Britt discloses the preamble (“[a] method for extracting solute from a source material, the method comprising:”) because it discloses “methods for extracting oils from oil bearing materials.”¹² Pet. 22 (quoting Ex. 1006 ¶ 2). Regarding limitation 1(a) (“depositing the source material having a solute in a canister”), Petitioner cites Britt’s disclosure of a first step wherein a “user opens the extraction tank 40 ... places a load of rose petals ... and closes the extraction tank 40.” *Id.* (quoting Ex. 1006 ¶ 23); *see also id.* at 21 (arguing that Britt’s “extraction tank” is analogous to claim 1’s “canister”).

For limitation 1(b) (“introducing a solvent into the canister”), Petitioner cites Britt’s disclosure of pumping solvent into extraction tank 40. *Id.* at 22 (citing Ex. 1006 ¶ 13). Regarding limitation 1(c) (“exposing the source material to the solvent to create an extract mixture having the solute in solution with the solvent”), Petitioner cites Britt’s teaching that “[t]he

¹² Generally, a preamble does not limit a claim. *See Allen Eng’g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1346 (Fed. Cir. 2002). The parties do not address whether the preamble is limiting. We need not decide whether it is limiting because Petitioner sufficiently demonstrates for purposes of institution that Britt discloses the preamble.

solvent then flows through the petals 44, extracting oil from the petals 44 to yield a mixture of the solvent and the oil.” *Id.* (quoting Ex. 1006 ¶ 13).

For limitation 1(d) (“fluidly communicating the extract mixture to one or more extract containers, the one or more extract containers being in fluid communication with the canister”), Petitioner cites Britt’s teaching that “distillation tank 50 receives the solvent/oil mixture 51 through its inlet 52 from the extraction tank 40.” *Id.* (quoting Ex. 1006 ¶ 14; citing *id.* at Figs. 1–10); *see also id.* at 21 (arguing that Britt’s “distillation tank” is analogous to claim 1’s “extract container”).

Regarding limitation 1(e) (“separating the solute from the extract mixture to define a recycled solvent by heating the one or more extract containers to evaporate the recycled solvent”), Petitioner points to Britt’s disclosure of heating the distillation tank “to a temperature that is high enough to evaporate the solvent, but low enough to avoid decomposing or evaporating the oil.” *Id.* at 22 (quoting Ex. 1006 ¶ 28).

For limitation 1(f) (“collecting the recycled solvent in a solvent collection container in fluid communication with the one or more extract containers”), Petitioner asserts that in Britt’s system, “[t]he solvent is ‘recovered’ in that it is separated from the oil and and returned to the reservoir 20.” *Id.* at 22–23 (quoting Ex. 1006 ¶ 33); *see also id.* at 21 (arguing that Britt’s “reservoir” is analogous to claim 1’s “solvent collection container”).

Finally, regarding limitation 1(g) (“cooling the recycled solvent within the solvent collection container”), Petitioner cites Britt’s teaching that “[t]he reservoir and chiller 20 and 30 are cooled by activating their cooling coils 22 and 32.” *Id.* at 23 (citing Ex. 1006 ¶ 25).

Based on the arguments and evidence of record, Petitioner has demonstrated a reasonable likelihood that Britt teaches each and every limitation of challenged claim 1, and therefore anticipates claim 1. We have reviewed the arguments and evidence of record and similarly find that Petitioner has demonstrated a reasonable likelihood that Britt teaches each and every limitation of challenged claims 7, 9–13, and 15–17, and therefore anticipates those claims. *See* Pet. 23–26.

Patent Owner does not specifically dispute that Britt anticipates claims 1, 7, 9–13, and 15–17, but rather makes a number of arguments concerning the adequacy of the Chess Declaration and Petitioner’s arguments overall. Prelim. Resp. 5–12. Although Patent Owner’s arguments are not specific to Petitioner’s anticipation grounds, we address them here.

First, Patent Owner argues that all four of Petitioner’s unpatentability grounds “lack sufficient detail and clarity.” *Id.* at 5. Patent Owner contends, for example, that Petitioner’s claim charts “provide no more than a fragment of text from a prior art reference with no context or explanation of how the disclosure aligns with the claim language.” *Id.* at 6. Patent Owner also contends that for some claim limitations, Petitioner’s claim charts cross-reference other claim limitations “without regard for distinctions in claim language.” *Id.* at 7. On this record, we find Patent Owner’s arguments unavailing. We find Petitioner’s arguments are sufficiently detailed and clear to enable us to understand the arguments and render this Decision on institution.

Second, Patent Owner argues that “most of the Chess Declaration is copied verbatim from the Petition itself,” and “[b]y merely parroting the

attorney argument container [sic] in the Petition, Mr. Chess has not provided factual support for the testimony provided therein.” *Id.* at 8, 9; *see also* Ex. 2001 (Patent Owner’s annotated version of the Chess Declaration that highlights language copied directly from the Petition). Contrary to Patent Owner’s suggestions, the Chess Declaration does disclose “underlying facts or data on which the opinion is based” and identify “objective evidence to explain the petitioner’s arguments,” e.g., by citing excerpts of the prior art references that teach or suggest particular claim limitations. Prelim. Resp. 9, 10. Although there may be questionable value in having a declarant merely parrot information from a petition without providing additional analysis or support, we find that Petitioner’s and Mr. Chess’s contentions are sufficiently detailed and supported to warrant institution. Patent Owner is free to further explore the sufficiency of Mr. Chess’s testimony during trial, including via cross examination.

Finally, Patent Owner argues that Petitioner equates terminology in the challenged claims with components of prior art systems, but “neither Petitioner nor Mr. Chess adequately explains why a person of ordinary skill in the art would understand the disclosures relating to components of prior art systems as teaching or suggesting the claimed limitations.” *Id.* at 12. This argument is unavailing on this record. As Patent Owner recognizes, “‘the [prior art] reference need not satisfy an *ipsissimis verbis* test,’ i.e., identity of terminology is not required to teach a claim limitation, *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009).” *Id.* As discussed above (*see supra* Section II.C (Claim Construction)), the Specification adequately supports Petitioner’s contentions that within the claimed “canister,” source material is exposed to a solvent to create an extract mixture; within the

claimed “extract container,” solvent is evaporated to separate the solvent from the extract solution; and within the claimed “solvent collection container,” recycled solvent is stored for reuse. Although it would have been a simple matter to identify vessels in the asserted prior art references that perform the same functions even without confirmation from Mr. Chess, Mr. Chess’s Declaration in fact equates the claimed vessels with the analogous vessels in the prior art references. *See, e.g.,* Ex. 1003 ¶ 71 (entry for claim limitation 1(a) correlates Britt’s extraction tank 40 and the claimed “canister”; entry for claim limitation 1(d) correlates Britt’s distillation tank 50 and the claimed “extract container(s)”; entry for claim limitation 1(f) correlates Britt’s reservoir 20 with the claimed “solvent collection container”). Accordingly, we disagree with Patent Owner that Petitioner’s equating of limitations in the challenged claims with words in the prior art patents is circular, unsupported, or lacking expert support.

For the reasons above, on this record, we determine that Petitioner has shown a reasonable likelihood of establishing that Britt anticipates claims 1, 7, 9–13, and 15–17.

E. Alleged Obviousness

As discussed above in Section II.D.3, we determine that Petitioner has shown a reasonable likelihood of establishing that at least one of the challenged claims is anticipated by Britt. On that basis, we institute *inter partes* review of all challenged claims. *See SAS Institute Inc. v. Iancu*, 138 S. Ct. 1348, 1358 (2018); 37 C.F.R. § 42.108(a). To provide the parties guidance, below we address Petitioner’s arguments that: (1) claims 2–6, 8, 14, and 18–20 are unpatentable as obvious over Britt, Buese, and Main (Pet. 26–36); (2) claims 1–13 and 18–20 are unpatentable as obvious over

Hebert, Buese, and Main (*id.* at 37–51); and (3) claims 15–17 are unpatentable as obvious over Hebert and Britt (*id.* at 51–55).

As will be discussed, on this record Petitioner has established a reasonable likelihood that at least one of the challenged claims would have been obvious over the asserted prior art combinations.

1. *Legal Standards*

A claim is unpatentable as obvious “if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains.” 35 U.S.C. § 103; *see also KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved based on underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) any objective indicia of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). An obviousness determination requires a reason to combine “accompanied by a reasonable expectation of achieving what is claimed in the patent-at-issue.” *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367 (Fed. Cir. 2016).

2. *Overview of Asserted Prior Art References*

a) *Buese (Ex. 1007)*

Buese, titled “Continuous Extractor, Concentrator and Dryer,” relates “to a continuous immersion extraction system.” Ex. 1007, code (54), 2:18–19. Buese describes a unit that allows “the recycling of the extraction solvent, and the drying of the extracted plant material while all are fully

contained within the unit.” *Id.* at 1:35–40. “The unit employs a plurality of extraction chambers such that one extraction chamber is removed and replaced without halting the extraction process in other extraction chambers.” *Id.* at 1:41–44. Buese describes the use of connectors, such as quick release connectors, for its system. *Id.* at 4:48–51.

Buese explains that “[t]he temperature at which the solvent is introduced into the extraction chambers can be controlled by employing a heater, chiller, or other heat exchanger in the solvent reservoir or the conduits situated prior to flow into the extraction chambers.” *Id.* at 5:10–14. Buese discloses that butane can be used as a solvent. *Id.* at 7:7–65.

b) Main (Ex. 1008)

Main, titled “Quick Connect Self-Sealing Coupling,” describes a quick connect coupling sleeve that advantageously enables quick coupling or uncoupling by rotating the sleeve a fractional turn relative to another part. Ex. 1008, 1:28–33, 3:15–22. The coupling is self-sealing, i.e., “the moving valve parts are effectively sealed against leakage of the operating fluid.” *Id.* at 1:5–9.

c) Hebert (Ex. 1009)

Hebert, titled “Extracting Oil from Oil Bearing Plant Parts,” “relates to a method for extracting oil from oil-bearing plant parts.” Ex. 1009, code (54), 1:16–18. Hebert’s Figure 1 is reproduced below.

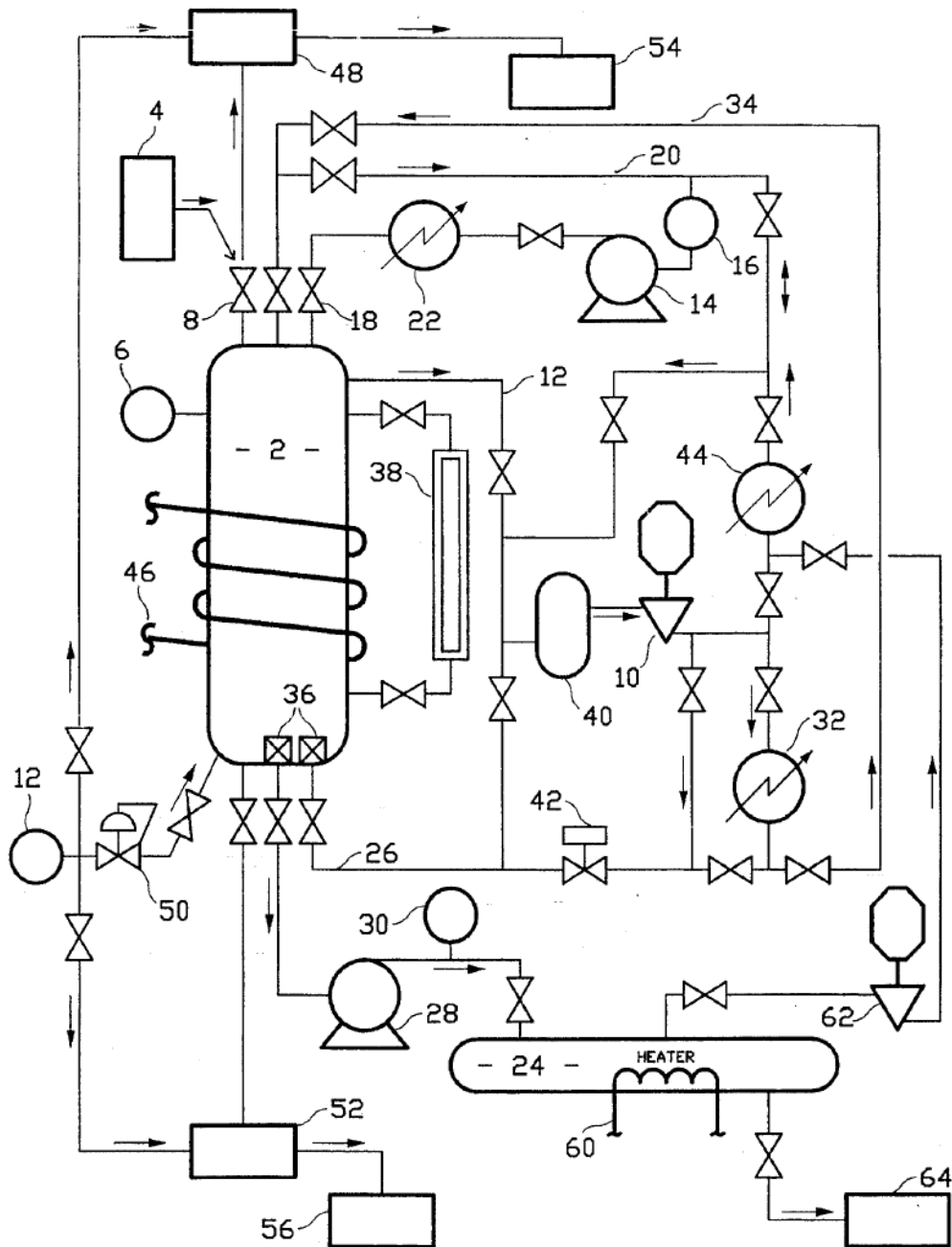


FIGURE 1

Hebert Figure 1, reproduced above, is a schematic illustration of a system for extracting oil from an oil-bearing plant material. *Id.* at 3:49–53. The system includes reactor vessel 2, which is “designed to receive an oil bearing

plant material, for example, rice bran.” *Id.* at 3:62–67. Liquid solvent, such as propane, is pumped by pump 14 from tank 16 into reactor 2. *Id.* at 4:25–28. The liquid solvent contacts the rice bran for a time sufficient to dissolve a substantial portion of the rice’s oil. *Id.* at 2:62–64. The liquid solvent and oil combination is transferred from reactor 2 to separator 24. *Id.* at 4:59–62. In separator 24, the solvent and oil combination is heated to vaporize the solvent, and the solvent vapor is drawn from separator 24 by compressor 62. *Id.* at 7:34–38. The solvent vapor is then liquified by condenser 44 and sent to storage tank 16. *Id.* at 7:38–39.

3. *Analysis*

In its three obviousness grounds, Petitioner, supported by Mr. Chess, asserts that the cited prior art combinations teach or suggest each limitation of certain challenged claims, and that a person of ordinary skill in the art would have had a reason to combine the cited prior art to reach the claimed subject matter. Pet. 26–55; Ex. 1003 ¶¶ 35–84. At this stage of the proceeding, Patent Owner does not contest Petitioner’s assertions that the cited prior art combinations teach or suggest each limitation of the challenged claims. Rather, Patent Owner asserts that Petitioner’s proffered “motivations to combine . . . are generic, unsupported by facts, and legally insufficient.” Prelim. Resp. 13.

We have considered the arguments and evidence of record and find that Petitioner has demonstrated a reasonable likelihood of prevailing in showing that (1) at least one of claims 2–6, 8, 14, and 18–20 would have been obvious over Britt, Buese, and Main (Pet. 26–36); (2) at least one of claims 1–13 and 18–20 would have been obvious over Hebert, Buese, and Main (*id.* at 37–51); and (3) at least one of claims 15–17 would have been

obvious over Hebert and Britt (*id.* at 51–55). We focus our discussion on Patent Owner’s arguments regarding Petitioner’s proffered reasons to combine. Prelim. Resp. 13.

With regard to Ground 2 (arguing that claims 2–6, 8, 14, and 18–20 would have been obvious over Britt, Buese, and Main), Petitioner argues that Britt teaches each limitation of independent claims 1 and 15, but does not explicitly describe some limitations of independent claim 18 and the challenged dependent claims. Pet. 27. Petitioner asserts that “Buese with Main to show the state of the art, cures this deficiency and provides a rationale for a [person of ordinary skill in the art] to incorporate multiple, releasably coupled extract containers capable of sealing, as well as a pump to displace recycled solvent, with a reasonable expectation of success.” *Id.* at 27–28 (citing Ex. 1007, 1:35–44, 3:32–35, 4:55–59, 4:48–51; Ex. 1008, 1:28–33, 3:15–22; Ex. 1003 ¶ 73).

Against that backdrop, Petitioner makes arguments specific to each challenged claim. For example, for claim 2, which recites that “the canister is releasably coupled” to the extract containers, Petitioner points to Buese’s teaching that using a plurality of extraction chambers coupled to the separation chamber allows continuous extraction because a depleted extraction chamber can be replaced with a chamber containing fresh extractable material. *Id.* at 30–31 (citing Ex. 1007, Abstract, 2:65–3:1).

As another example, with respect to claim 4, which recites “selectively uncoupling the first extract container from the canister and sealing the first extract container for storage,” Petitioner points to Buese’s disclosure of using quick release connectors, and argues that one skilled in the art would have appreciated, e.g. based on Main’s teachings, that such

connectors permit quick connection and disconnection and are self-sealing. *Id.* at 31–32 (citing Ex. 1008, 1:28–33; Ex. 1003, XIV.4), 28 (citing Ex. 1007, 4:48–51; Ex. 1008, 1:28–33, 3:15–22; Ex. 1003 ¶ 74).

As another example, claim 8 recites “wherein collecting the recycled solvent comprises displacing, with a pump, the recycled solvent in vapor form from the one or more extract containers to the solvent collection container.” Ex. 1001, 22:48–52. Petitioner asserts that although Britt teaches against using a pump to displace the recycled solvent because it could compress and thus overheat the solvent, a person of ordinary skill in the art would have known that “pumping the solvent vapor through application of a vacuum does not compress the solvent” and would avoid overheating, in accordance with the intended purpose of Britt. Pet. 33–34 (citing Ex. 1003, XVI.8). Petitioner asserts that Buese teaches use of such a vacuum pump to condense vaporized solvent into a liquid that drains into the solvent reservoir, as claimed. *Id.* at 34 (citing Ex. 1007, 3:32–35; Ex. 1003, XVI.8).

For Ground 3 (arguing that claims 1–13 and 18–20 are unpatentable as obviousness over Hebert, Buese, and Main), Petitioner similarly asserts that although Hebert does not teach or suggest every limitation of the challenged claims, “Buese with Main to show the state of the art, cures this deficiency and provides a rationale for a [person of ordinary skill in the art] to incorporate multiple, releasably coupled extract containers capable of sealing, a pump to displace recycled solvent, as well as cooling the solvent via a cooling mechanism within the solvent collection container, with a reasonable expectation of success.” Pet. 38 (citing Ex. 1007, 1:35–44, 4:55–59, 5:10–13, 6:58–61, 7:66; Ex. 1008, 1:28–33, 3:15–22; Ex. 1003 ¶ 77).

Against that backdrop, Petitioner makes arguments specific to each challenged claim. For example, with respect to claim 1, limitations 1(f) and 1(g) respectively recite “collecting the recycled solvent in a solvent collection container in fluid communication with the one or more extract containers” and “cooling the recycled solvent within the solvent collection container.” Ex. 1001, 22:10–14. Petitioner argues that Hebert discloses condensing solvent vapor into a liquid and sending the liquid to a storage tank, and Buese discloses that the solvent storage tank (reservoir) can be chilled to control the temperature at which the solvent is subsequently introduced into the extraction chamber. Pet. 41–42 (citing Ex. 1009, 7:37–39; Ex. 1007, 5:10–13). Petitioner asserts that in view of these disclosures it would have been obvious to modify Hebert’s method to cool the recycled solvent within the solvent collection container as claimed. *Id.* at 41 (citing Ex. 1003, XV.1(g)). This argument is supported on this record because chilling the solvent storage tank as taught in Buese would maintain the recycled solvent in liquid form for reuse in Hebert’s system. *See, e.g.*, Ex. 1009, 4:25–28 (discussing pumping of liquid solvent from solvent storage tank 16 to reactor 2).

For Ground 4 (arguing that claims 15–17 are unpatentable as obvious over Hebert and Britt), Petitioner asserts that although Hebert does not teach or suggest every limitation of the challenged claims, “Britt cures this deficiency and provides a rationale for a [person of ordinary skill in the art] to incorporate cooling the solvent below the boiling point via a cooling mechanism within the solvent collection container, with a reasonable expectation of success.” Pet. 51 (citing Ex. 1006 ¶¶ 12, 32; Ex. 1003 ¶ 81).

Against that backdrop, Petitioner makes arguments specific to each challenged claim. For example, with respect to limitation 15(d) (“cooling the evaporated solvent to a temperature below the boiling point of the solvent to define a recycled liquid solvent”), Petitioner asserts that although Hebert does not explicitly state that the solvent is cooled to a temperature below its boiling point, Hebert discloses condensing the solvent vapor into a liquid, and that a person of ordinary skill in the art would have “appreciated that in order to condense a substance from a gaseous state into a liquid state, it must be cooled to a temperature equal to or less than the boiling point of the substance.” *Id.* at 53–54 (citing Ex. 1003, XVI.15(d)). With respect to limitation 15(f) (“maintaining a temperature of the recycled liquid solvent within the solvent collection container”), Petitioner asserts that Britt discloses that solvent is maintained and pumped at a temperature of “preferably below –10 degrees F.” *Id.* at 54 (citing Ex. 1006 ¶ 32). Petitioner asserts that a person of ordinary skill in the art would have modified Hebert in view of Britt to maintain the temperature of the recycled liquid solvent within the solvent container, resulting in the invention as claimed. *Id.* at 54 (citing Ex. 1002, Section XVI.15(f)). This argument is supported on this record because, as noted above, chilling the solvent storage tank as taught in Britt would maintain the recycled solvent in liquid form for reuse in Hebert’s system. *See, e.g.*, Ex. 1009, 4:25–28 (discussing pumping of liquid solvent from solvent storage tank 16 to reactor 2).

On this record, we determine that Petitioner has demonstrated a reasonable likelihood of showing that a person of ordinary skill in the art would have implemented the cited features of the prior art systems such as quick release connectors, vacuum pumps, and solvent cooling means, to gain

the known benefits of these features, resulting in the invention as claimed. *See, e.g., KSR*, 550 U.S. at 417 (“[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.”).

Patent Owner argues that “[t]he motivations to combine in the body of the Petition are generic, unsupported by facts, and legally insufficient to establish a motivation to combine references.” Prelim. Resp. 13. In particular, Patent Owner argues that Petitioner’s assertion that the involved references all “concern closed loop extraction systems” cannot establish a motivation to combine because “[d]emonstrating that a reference is analogous art or relevant to the field of endeavor of the challenged patent is not sufficient” to establish a reason to combine. *Id.* at 14. Patent Owner is correct that to establish a reason to combine, it is not sufficient to merely demonstrate that references are analogous art or are in the same field of endeavor. *See, e.g., Securus Techs., Inc. v. Global Tel*Link Corp.*, 701 F. App’x 971, 977 (Fed. Cir. 2017) (“a broad characterization of [prior art references] as both falling within the same alleged field . . . without more, is not enough for [a petitioner] to meet its burden of presenting a sufficient rationale to support an obviousness conclusion”). The arguments in the Petition and Chess Declaration, however, go beyond merely asserting that a person of ordinary skill in the art would have combined the references because they directed to the same subject matter.

For example, we understand the Petition to assert that in view of Main’s teaching that quick connectors allowed for quick connection and disconnection and had self-sealing capabilities, a person of ordinary skill in

the art would have had a reason to use such connectors in Britt's system. *See, e.g.*, Pet. 28 (citing Exhibit 1008, 1:28–33, 3:15–22; Ex. 1003 ¶ 74). As another example, we understand the Petition to assert that in view of Buese's teaching that selectively coupling and uncoupling vessels and using a redundancy of vessels allows for their removal and replacement without interrupting the extraction process, a person of ordinary skill in the art would have used such selective coupling/uncoupling in Britt's system. *See id.* at 30–31 (citing Exhibit 1007, Abstract, 2:65–3:1, 4:55–59; Ex. 1003, XIV.2, -2(a)). Accordingly, we do not read the Petition as merely standing on the relatedness of the prior art references.

Patent Owner next argues that "Petitioner's assertion that quick release connectors mentioned in Buese had '**capabilities** of quick connection and disconnection, specifically self-sealing capabilities' as disclosed in Main" is a "generic statement of what one would be capable of" and "cannot establish a motivation to combine." Prelim. Resp. 15. Patent Owner is again correct that "obviousness concerns whether a skilled artisan not only *could have made* but *would have been motivated to make* the combinations or modifications of prior art to arrive at the claimed invention." *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015). On this record, however, Patent Owner appears to misconstrue Petitioner's arguments. We do not read the Petition as stating that a person of ordinary skill had the capability of using quick connectors, as Patent Owner's argument implies. Rather, we read the Petition as stating that a person of ordinary skill in the art would have used quick connectors because they allowed for quick connection and disconnection and self-sealing. *See, e.g.*, Pet. 27–28; *see also id.* at 32 ("[T]he use of quick release connectors would result in the

automatic sealing of the first extract container, thus making the uncoupled first extract container suitable for storage.”).

Patent Owner asserts that Petitioner improperly focuses on “possible improvements or alternative approaches,” rather than “on an actual motivation to combine.” Prelim. Resp. 16. On this record, we find that Patent Owner reads the Petition too narrowly. We read the Petition as asserting that a person of ordinary skill in the art would have seen advantages to applying the techniques of the secondary references to improve the oil extraction systems of the primary references, which *KSR* teaches is a sufficient reason to combine teachings from more than one prior art reference. *See KSR*, 550 U.S. at 417 (“[A] court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.”); *see also Unwired Planet, LLC v. Google Inc.*, 841 F.3d 995, 1003–04 (Fed. Cir. 2016) (“[The prior art’s] teaching of the advantages of combining ordering techniques shows ‘there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.’”) (quoting *KSR*, 550 U.S. at 418).

Finally, Patent Owner asserts that the Petition does not explain “any problem or disadvantage with the unmodified systems of the prior that would suggest combining these systems with the teachings of other prior art.” Prelim. Resp. 17. The Federal Circuit, however, has held that “a challenger need not prove that there was a known problem with the prior art in order to demonstrate that there was a motivation to combine prior art references.” *Arctic Cat Inc. v. Polaris Indus., Inc.*, 795 F. App’x 827, 833 (Fed. Cir. 2019); *see also Unwired Planet, LLC*, 841 F.3d at 1002–03 (finding that patent challenger need not establish “a known problem with the

prior art system in order to articulate the required rational underpinning for the proposed combination”).

For the above reasons, on this record Petitioner has established a reasonable likelihood that at least one of the challenged claims would have been obvious over the asserted prior art combinations.

F. *Notices*

At this stage of the proceeding, the Board has not made a final determination regarding the patentability of any challenged claim. Thus, any conclusion reached in the foregoing analysis could change upon completion of the record.

The Board will deem forfeited any issue not raised in a timely response to the Petition, or as permitted in another manner during trial, even if asserted in the Preliminary Response or discussed in this Decision.

Nothing in this Decision authorizes Petitioner, in a manner not otherwise permitted by the Board’s rules, to supplement the information pertaining to any ground advanced in the Petition.

III. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is instituted based on all grounds asserted in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial commencing on the entry date of this Decision.

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