

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

JEISYS MEDICAL INC.,
Petitioner,

v.

SERENDIA, LLC,
Patent Owner.

IPR2024-00386
Patent 9,480,836 B2

Before CARL M. DeFRANCO, MICHAEL L. WOODS, and
SCOTT RAEVSKY, *Administrative Patent Judges*.

WOODS, *Administrative Patent Judge*.

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

I. INTRODUCTION

Jeisys Medical Inc. (“Jeisys” or “Petitioner”) and Ilooda Co., Ltd., (“Ilooda”) filed a Petition (Paper 1, “Pet.”) for *inter partes* review of claims 1–29 (the “Challenged Claims”) of U.S. Patent No. 9,480,836 B2 (Ex. 1001, “the ’836 patent”). Pet. 1. Ilooda settled its dispute with Patent Owner and we dismissed Ilooda as a party to this proceeding. See Paper 14. Accordingly, Jeisys is the sole petitioner.

Serendia, LLC, (“Patent Owner”) filed a Preliminary Response (Papers 11, 13).¹ With our authorization, Petitioner also filed a Reply (Paper 15, “Pet. Reply” or “Reply”) and Patent Owner filed a Sur-reply (Paper 16, “PO Sur-reply” or “Sur-reply”).

Under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a), we have authority to institute an *inter partes* review if “the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). After considering the Petition, the Preliminary Response, and the evidence of record, we determine the information presented shows a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of at least one of the Challenged Claims of the ’836 patent. Accordingly, we institute an *inter partes* review of claims 1–29 of the ’836 patent on the grounds asserted in the Petition.

¹ Patent Owner filed a confidential version of its preliminary response (Paper 13) and a public version of its preliminary response (Paper 11). Throughout this Decision, and unless otherwise noted, our reference to the “Preliminary Response” or “Prelim. Resp.” will be to the public version, Paper 11.

II. BACKGROUND

A. Real Parties-in-Interest

Petitioner identifies Ilooda Co., Ltd. And Jeisys Medical Inc. as the real-parties-in-interest. Pet. 3.

Patent Owner identifies itself as the sole real-party-in-interest. *See* Paper 6, 1.

B. Related Matters

The parties identify the following court proceedings relating to the '836 patent:

- *Certain Dermatological Treatment Devices and Components Thereof*, 337-TA-1356 (“ITC Investigation” or “ITC Proceeding”)
- *Serendia, LLC v. Cutera, Inc.*, No. 1:23-cv-00222 (D. Del.)
- *Serendia, LLC v. Cynosure, LLC*, No. 1:23-cv-00223 (D. Del.)
- *Serendia, LLC v. EndyMed Medical, Inc.*, No. 1:23-cv-00224 (D. Del.)
- *Serendia, LLC v. Lutronic Aesthetics, Inc.*, No. 1:23-cv-00225 (D. Del.) (dismissed)
- *Serendia, LLC v. Rohrer Aesthetics, Inc.*, No. 1:23-cv-00226 (D. Del.) (dismissed)
- *SynKloud Technologies, LLC, et al. v. Aesthetics Biomedical, Inc.*, No. 2:22-cv-15 (D. Ariz.) (dismissed)
- *SynKloud Technologies, LLC, et al. v. Sung Hwan E&B Co., LTD.*, No. 6:21-cv-811 (W.D. Tex.)

- *SynKloud Technologies, LLC, et al. v. Cartessa Aesthetics, LLC*, No. 2:21-cv-4423 (E.D. N.Y.) (dismissed)

Pet. 3–4; Paper 6, 1–2.

The parties further identify IPR2022-00594 (the “Prior Petition” or “Prior IPR”), which challenged the ’836 patent and which the Board denied institution of *inter partes* review. Paper 6, 2; Pet. 4; *see also* Prelim. Resp. 4.

C. Overview of the ’836 Patent

The ’836 patent is titled “Skin Treatment Apparatus and Method” (Ex. 1001, code (54)) and describes “skin treatment using electrical energy, especially with the primary purpose for skin treatment for aesthetics” (*id.* at code (57)).²

The ’836 patent further describes a “method and apparatus that provides electrical stimulation directly to a body region including the dermis via needles.” Ex. 1001, 2:37–41. The ’836 patent explains that the “method revitalizes and regenerates the body region including collagen by wounding the dermis.” *Id.* The ’836 patent states that “[e]xisting technology may create scars created in overheated or burned epidermis” and that an embodiment of the invention is “to prevent overheating or burning of epidermis.” *Id.* at 4:18–22. We reproduce Figure 5 of the ’836 patent, below:

² Throughout this Decision, our quotations from the ’836 patent and other U.S. patent documents omit bold emphasis from the reference numerals.

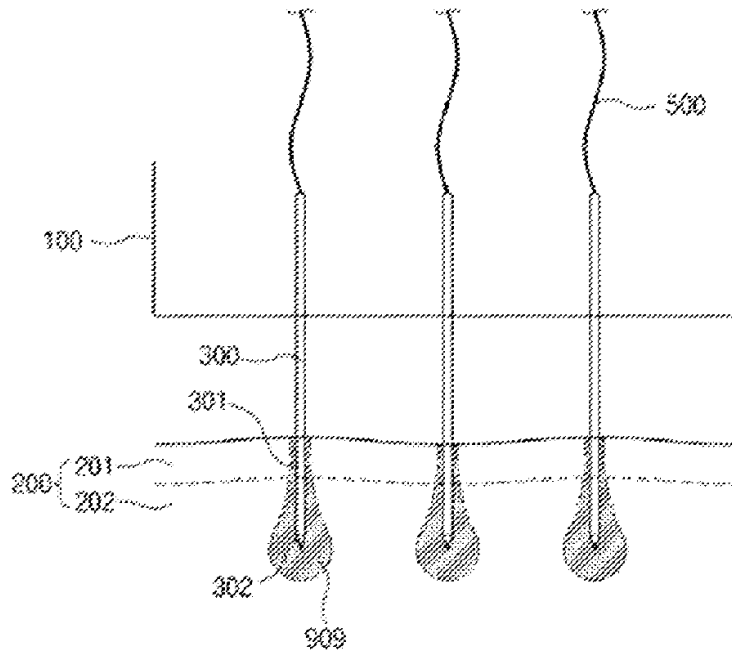


FIGURE 5

Figure 5 depicts “a simplified diagram of treatment architecture using non insulated needles according to an embodiment of” the ’836 patent. Ex. 1001, 4:41–43. In particular, Figure 5 depicts needles 300 with needle tips 302 for generating energy field 909. *See id.* at 7:27–32 (referencing Fig. 6); *see also id.* at 9:25–26.

The ’836 patent further discloses,

In an embodiment, the temperature is raised about the tip of each needle, not between needles. The method of the present invention may control electrical factors or distance between needles to control the energy field applied between needles. A method of the present invention may enable users to control the number of treatments in target areas by controlling the dissipated energy in needles.

Id. 3:30–36.

D. Challenged Claims

Petitioner challenges every claim, or claims 1–29, of the '836 patent. Pet. 1; Ex. 1001, 10:47–12:36. Of these claims, claims 1 and 14 are independent. *See* Ex. 1001, 10:47–12:36. We reproduce claim 1, below:

1. A skin treatment apparatus, comprising:
 - a plurality of electrodes, the electrodes being bipolar and configured to be insertable into skin to be treated; and
 - a radio frequency (RF) generation module, the RF generation module electrically coupled to the plurality of electrodes and configured to provide an Alternating Current (AC) RF signal to the plurality of electrodes configured to cause coagulation around each electrode rather than coagulating between the electrodes.

Id. at 10:47–55.

E. Asserted Grounds of Unpatentability

Petitioner asserts that the Challenged Claims are unpatentable based on the following grounds (Pet. 5–6):

Ground	Claims Challenged	35 U.S.C. § ³	Reference(s)/Basis
1	1, 2, 11–15, 23, 24, 26	103	Ganz ⁴
2	1, 2, 11–15, 23, 24, 26	103	Ganz, Livneh ⁵
3	2–10, 15–22, 25	103	Ganz, Hantash ⁶
4	2–10, 15–22, 25	103	Ganz, Livneh, Hantash
5	27–29	103	Ganz, Lee ⁷
6	27–29	103	Ganz, Livneh, Lee

Petitioner also relies on the declaration of Dany Bérubé, Ph.D. (Ex. 1003). *See, e.g.*, Pet. 9 (referencing Exhibit 1003).

In support of its Preliminary Response, Patent Owner relies on the declarations of Daniel W. van der Weide (Ex. 2030) and David J. Goldberg (Ex. 2031). *See, e.g.*, Prelim. Resp. 32 (referencing Exhibits 2030 and 2031).

³ The '836 patent was filed on June 14, 2012, and the pre-AIA version of 35 U.S.C. applies to this proceeding. *See* Ex. 1001, code (22).

III. DISCRETIONARY DENIAL UNDER *GENERAL PLASTIC*

The first issue is whether we should exercise our discretion to deny institution based on the Prior Petition.

A. Principles of Law

Under 35 U.S.C. § 314(a), the Director has discretion to deny institution of an *inter partes* review. *Cuozzo Speed Techs., LLC v. Lee*, 579 U.S. 261 (2016). The Director has delegated that authority to the Board. *See* 37 C.F.R. § 42.108(a).

In *General Plastic*, the Board articulated a non-exhaustive list of factors to be considered in determining whether to exercise discretion under § 314(a) to deny a petition that challenges the same patent as a previous petition. *General Plastic Indus. Co., Ltd. v. Cannon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 16 (PTAB Sept. 6, 2017) (precedential as to § II.B.4.i). Under the first *General Plastic* factor, the Board considers “whether the same petitioner previously filed a petition directed to the same claims of the same patent.” *Id.*

In *Valve*, the Board extended the inquiry of the first *General Plastic* factor to include not only the same petitioner, but also any petitioners bearing a “significant relationship” to an earlier petitioner. *Valve Corp. v. Elec. Scripting Prods., Inc.*, IPR2019-00062, Paper 11 at 9–10 (PTAB Apr. 2, 2019).

⁴ U.S. Pat. Pub. No. 2007/0208340, published Sept. 6, 2007 (Ex. 1005, “Ganz”).

⁵ WO 2008/005477, published Jan. 10, 2008 (Ex. 1006, “Livneh”).

⁶ WO 2007/064718, published June 7, 2007 (Ex. 1007, “Hantash”).

⁷ Korean Pat. No. 20-0441552, published Aug. 25, 2008 (Exs. 1008 (English translation), 1009 (original Korean document)). We refer to Exhibit 1008, the English-language translation of Lee, as “Lee” in this Decision.

In *Videndum*, the Director clarified that where “the first and second petitioners are neither the same party, nor possess a significant relationship under *Valve*, *General Plastic* factor one necessarily outweighs the other *General Plastic* factors.” *Videndum Prod. Sols., Inc v. Rotolight Ltd.*, IPR2023-01218, Paper 12 at 6 (Vidal Apr. 19, 2024). Therefore, the application of *General Plastic* to discretionarily deny a later petition in view of an earlier petition requires the earlier and later petitioners to either be the same party or possess a “significant relationship.” *See id.* at 6–7.

In *Valve*, the Board found a significant relationship to exist where the prior and current petitioners were accused of infringing the same patent based upon the same product for which they had an ongoing licensing relationship. *Valve*, Paper 11 at 9–10.

In *Ford*, the Director held that court-ordered case-management coordination between parties having different accused products does not establish a significant relationship absent “other relevant or extenuating facts or circumstances.” *Ford Motor Co. v. Neo Wireless LLC*, IPR2023-00763, Paper 28 at 10–11 (Vidal Mar. 22, 2024).

B. Factual Background

Beginning in 2021, Patent Owner began asserting the ’836 patent against several parties, including Cartessa Aesthetics, LLC (“Cartessa”) and Aesthetics Biomedical Incorporated (“ABM”). *See* Prelim. Resp. 3 (citations omitted).

On February 10, 2022, Cartessa and ABM filed the Prior Petition challenging all claims of the ’836 patent. *See Cartessa v. Serendia, LLC*, IPR2022-00594, Paper 1 (PTAB Feb. 10, 2022). On August 12, 2022, the

Board denied institution because ABM and Cartessa failed to show a reasonable likelihood of prevailing with respect to any of the challenged claims. *Id.*, Paper 9 at 2.

On March 3, 2023, Patent Owner filed a complaint with the International Trade Commission based on the alleged infringement of the '836 patent (referenced above as the "ITC Investigation" or "ITC Proceeding"). *See* Prelim. Resp. 4 (citation omitted); *see also supra* § II.B. The complaint named numerous parties as respondents, including Ilooda, Jeisys, Cartessa, and ABM. *See id.* (citation omitted).

On January 8, 2024, Ilooda and Jeisys filed the instant Petition requesting *inter partes* review of the '836 patent. Paper 1.

C. Parties' Arguments

Patent Owner references the Prior Petition and argues that we should exercise our discretion and deny institution under *General Plastic*. *See* Prelim. Resp. 7 (citations omitted).

Petitioner argues that the Board should not exercise its discretion to deny institution because the current Petitioner does not have a "significant relationship" with the prior petitioners (Cartessa and ABM). *See* Pet. Reply 1 (citations omitted).

Patent Owner argues that a "significant relationship" exists between the prior and current petitioners due to the parties' coordination as co-respondents in the ITC Investigation. *See* Prelim. Resp. 9. Patent Owner highlights the parties' coordination vis-à-vis a joint proposed procedural schedule, joint invalidity expert report, and joint invalidity defenses. *See id.* (citing Exs. 2004, 2012, 2016–19). Additionally, Patent Owner notes that the parties' joint invalidity expert in the ITC Proceeding, Dr. Jean

Woloszko, is the same expert that the current Petitioner relies on in this proceeding. *See id.* (citing Ex. 2004; Ex. 2012, 867:24–902:19). Patent Owner contends that this “level of coordination between the prior and current petitioners goes significantly beyond merely presenting initial invalidity contentions and a claim construction statement (as was the case in *Ford Motor Co. v. Neo Wireless*).” *Id.*

Patent Owner further contends that “additional relevant and extenuating facts and circumstances” evidence a significant relationship between the prior petitioners and the current petitioners. Prelim. Resp. 10. Patent Owner asserts that:

(1) the prior and current petitioners are in the same RF micro-needling manufacturing and distribution community (*id.* (citing Ex. 2020 ¶ 3.13; Ex. 2021 ¶ 3.17));

(2) the current petitioners’ notice of potential infringement of the ’836 patent before the Prior Petition was filed (*id.* (citing Exs. 2022, 2023, 2052)); and

(3) the current petitioners’ knowledge of each prior art reference relied on in the current Petition more than seven months prior to its filing, which Patent Owner characterizes as a “tactical delay” (*see id.* 10–11 (citing Ex. 2053)).

Patent Owner argues that the current petitioners’ “tactical delay, paired with the significant coordination between the prior and current Petitioners throughout the entirety of the parallel ITC proceedings demonstrates ‘relevant or extenuating facts or circumstances’ evidencing a ‘significant relationship’ between the prior and current Petitioners.” Prelim. Resp. 11 (quoting *Ford*, Paper 28 at 11).

Petitioner responds that Patent Owner’s reliance on the prior and current petitioners “having been two of 14 co-respondents in a parallel ITC investigation involving the ’836 patent” overlooks that the Prior Petition was

filed in response to Patent Owner’s district court complaint against the prior petitioners in August 2021, and that Patent Owner waited until March 2023 to file the ITC complaint against the current petitioners. Pet. Reply 1.

Petitioner further points out that the “joint submission in the ITC of a proposed procedural schedule and an invalidity expert report” *was required* by the rules of the proceeding, and thus, they cannot form the basis of a significant relationship. Pet. Reply 2 (first citing Ex. 1040; Ex. 1041 §§ 2, 3.1; *Ford*, Paper 28 at 3). Regarding the evidentiary hearing and the post-hearing briefing, Petitioner states that the prior petitioners had settled out of the ITC Proceeding and therefore did not participate in the corresponding invalidity presentations. Pet. Reply 2 n.1 (citing Ex. 1039, 820:13–20; Ex. 2012).

Petitioner additionally notes that, like the parties in *Ford*, the prior and current petitioners are competitors who sell different products, and because the prior and current petitioners “had no ‘interactions or agreements regarding implementation of the accused [technology] . . . into their respective accused products,’ the ‘other relevant or extenuating facts or circumstances’ identified in *Ford* are also absent here.” Pet. Reply 2 (quoting *Ford*, Paper 28 at 3).

Patent Owner argues that Petitioner’s reading of *Ford* is too narrow, and that while “being litigation co-defendants does not ‘necessarily’ create a significant relationship that would justify discretionary denial[,] . . . there are additional facts and circumstances [here] evidencing a ‘significant relationship.’” PO Sur-reply 1–3. Patent Owner further alleges that the current petitioners “use[d] the prior petitions (and Patent Owner’s disclosures in the parallel litigation), as a roadmap for this second Petition.” *Id.* at 3. Patent Owner also argues that the current petitioners “ignore[] the

other factors enumerated in the precedential opinion in *Valve* [] and its progeny.” *Id.* at 2 (citing *Valve*, Paper 11 at 2, 9; *Mitek Sys., Inc. v. United Servs. Auto. Ass’n*, IPR2020-00882, Paper 29 at 17 (PTAB Nov. 6, 2020); *Ericsson Inc. v. Uniloc 2017, LLC*, IPR2019-01550 (PTAB Mar. 17, 2020)).

D. Analysis

The Director’s recent *Videndum* decision provides that where no “significant relationship [exists] under *Valve*, *General Plastic* factor one necessarily outweighs the other *General Plastic* factors.” *See Videndum*, Paper 12 at 6. Moreover, the Director’s decision in *Ford* clarified that “court-ordered” coordination *alone* between parties having different accused products does not establish a significant relationship absent “other relevant or extenuating facts or circumstances” that might evidence a significant relationship, such as “interactions or agreements regarding the implementation of the accused [technology] into their respective accused products.” *Ford*, Paper 28 at 10–11.

We do not find a significant relationship exists between the prior and current petitioners so as to warrant discretionary denial under *General Plastic*. First, like the parties in *Ford*, the prior and current petitioners are competitors selling different products, and there is no evidence of agreements regarding the implementation of the claimed technology into their respective accused products. *See Ford*, Paper 28 at 10; *cf. Valve*, Paper 11 at 10 (“Valve represented that ‘HTC’s VIVE devices incorporate certain Valve technologies under a technology license from Valve,’ and that ‘Valve employees did provide HTC with technical assistance during the development of the accused VIVE devices.’”).

Second, and also like in *Ford*, the “Ground Rules” for the ITC Investigation *required* that “[p]arties with similar interests should coordinate and consolidate motion practice to the extent practicable” (Ex. 1041 § 2) and “must coordinate and consolidate depositions and all other discovery” (*id.* § 3.1). Indeed, we understand that all fourteen co-respondents in the ITC Investigation submitted the joint expert report of Dr. Jean Woloszko. *See* Ex. 2004, 1; *see also Ford*, Paper 28 at 3.

Third, we do not find the current Petitioner’s mere knowledge of litigation—either in the ITC or district court—against competitors in RF microneedling to establish a significant relationship with those competitors. *Cf. Ford*, Paper 17 at 3 (noting that where the patent at issue had been asserted against multiple competitors regarding their respective accused products, “merely engag[ing] in court-ordered pretrial coordination” is by itself insufficient to establish a “significant relationship” between the parties).

Fourth, we do not find the current Petitioner to have engaged in improper gamesmanship through “tactical delay.” As Petitioner explains, the Prior Petition was filed in response to a district court action filed by Patent Owner against the prior petitioners, but not Petitioner, while the current Petition was filed in response to an ITC Investigation initiated after the denial of the Prior Petition.

Patent Owner’s remaining arguments are directed to other factors in the *General Plastic* analysis and do not evidence a significant relationship between the prior and current Petitioners.

Accordingly, we do not exercise our discretion to deny institution under *General Plastic*.

IV. ANALYSIS

A. Level of Ordinary Skill in the Art

The parties agree that a person of ordinary skill in the relevant art (“POSITA”) would have had

- (1) 7–10 years of experience with developing and/or using treatment systems for delivery of electromagnetic radiation energy to skin or other tissues, and
- (2) a related graduate engineering degree or M.D. and may have worked as part of a multidisciplinary team and drawn upon not only his or her own skills, but also would have taken advantage of certain specialized skills of others on the team when solving a technical problem.

Ex. 1028, 14–15; *see also* Pet. 9 (citing Ex. 1028, 15; Ex. 1003 ¶¶ 50, 51); *see also* Prelim. Resp. 29.

For purposes of this Decision, we adopt the parties’ assessment of the level of ordinary skill in the art, as it is consistent with the prior art of record and the ’836 patent.

B. Claim Construction

In this *inter partes* review, we apply the same claim construction standard that would be used in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b). In applying this standard, we generally give claim terms their ordinary and customary meaning as would be understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *See id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (*en banc*).

Neither Petitioner nor Patent Owner expressly construe any term. *See* Pet. 9; *see also* Prelim. Resp. 30.

For purposes of this Decision, we need not and do not formally construe any claim 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)).

C. Principles of Law

Petitioner’s asserted grounds of unpatentability of the challenged claims are based on obviousness. *See* Pet. 5–6.

A patent claim is unpatentable as obvious if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *See 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, when presented, (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

We analyze the asserted grounds of unpatentability in accordance with these principles.

D. Ground 1: Alleged Obviousness over Ganz

Petitioner submits that claims 1, 2, 11–15, 23, 24, and 26 are unpatentable over Ganz in view of a POSITA’s knowledge. Pet. 5, 12.

1. *Ganz (Ex. 1005)*

Ganz is a U.S. Patent titled, “Device and Method for Treating Tissue.” Ex. 1005, code (54). Ganz’s disclosed invention relates to a device and method for treating one or more layers of tissue, such as by simultaneously imparting perforations into the layers. *Id.* ¶ 1. Ganz purports to disclose a device and method for treating skin to elicit a healing response for improving the appearance of the skin. *Id.*

We reproduce Figure 1 of Ganz, below:

Figure 1

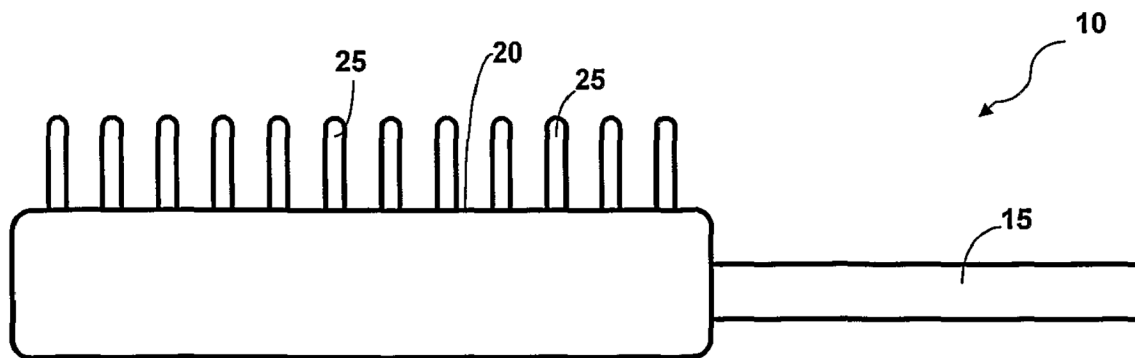


Figure 1, reproduced above, is a side view of the distal end of a treatment device in accordance with an embodiment of Ganz’s invention. Ex. 1005 ¶ 17. In particular, Figure 1 depicts treatment device 10 with treating surface 20 connected to shaft 15. *Id.* ¶ 44. When in use, treating surface 20 is stamped onto the surface of the skin, so that electrode pins create the desired perforation pattern on the tissue. *See id.* ¶¶ 44, 45.

We further reproduce Figure 6 of Ganz, below:

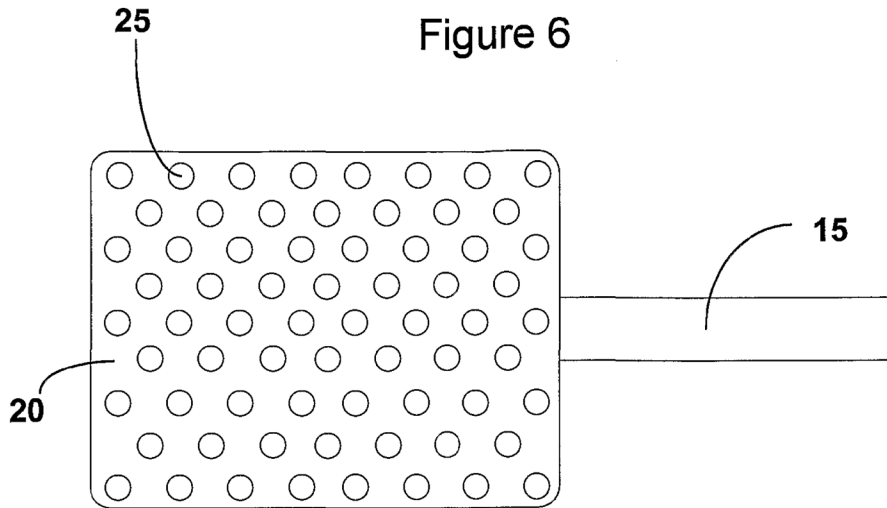


Figure 6, reproduced above, is a front view of the distal end of a treatment device showing an electrode pattern in accordance with another embodiment of Ganz's invention. *Id.* ¶ 22. This figure depicts electrodes 25 arranged in an orderly pattern on treating surface 20. *Id.* ¶ 50.

2. *Independent Claim 1*

We address each of the limitations of claim 1 as partitioned by Petitioner. *See* Pet. 21–34.

a. *Element 1(Preamble) “A skin treatment apparatus”*

Petitioner submits that Ganz discloses the preamble. Pet. 13 (citing Ex. 1003 ¶ 68). In support of this position, Petitioner references Figure 1 of Ganz and quotes Ganz's disclosure that its “invention relates to a device and method for treating one or more layers of the skin to elicit a healing response which produces a more desirable skin appearance.” *Id.* (quoting Ex. 1005 ¶ 1; citing Ex. 1003 ¶ 69; citing Ex. 1035 ¶ 28).

Patent Owner does not dispute Petitioner's position. *See generally* Prelim. Resp.

Without determining whether the preamble is limiting, Petitioner has shown a reasonable likelihood that Ganz discloses a “skin treatment apparatus.”

b. Element 1(a) “a plurality of electrodes, the electrodes being bipolar and configured to be insertable into skin to be treated”

Petitioner submits that Ganz discloses limitation 1(a). Pet. 13 (citing Ex. 1003 ¶ 71).

(i) “a plurality of electrodes”

Petitioner quotes Ganz’s disclosure that its device “comprises a treating surface configured to be positioned in contact with tissue adjacent one or more tissue planes and a *plurality of electrodes* extending outwardly from the treating surface and adapted for imparting simultaneous perforations into one or more tissue layers, wherein the electrodes are provided in a pattern to impart a corresponding pattern of perforations in the one or more tissue layers.” Pet. 14 (quoting Ex. 1005 ¶ 10) (emphasis added). Petitioner further references Figures 1 and 6 of Ganz and explains that these figures depict a “plurality of electrode pins 25 . . . are positioned about a portion of the treating surface.” *Id.* (quoting Ex. 1005 ¶ 44).

Patent Owner does not contest Petitioner’s showing for this limitation. *See generally* Prelim. Resp.

At this preliminary stage of the proceeding, based on the current briefing and evidence, Petitioner has shown a reasonable likelihood that Ganz discloses a “plurality of electrodes.”

(ii) “*the electrodes being bipolar*”

Petitioner submits that Ganz discloses this limitation, quoting Ganz’s disclosure that its “electrodes can be either monopolar or bipolar electrodes.” Pet. 15 (quoting Ex. 1005 ¶ 55; citing Ex. 1003 ¶ 77; citing Ex. 1035 ¶ 30). Petitioner further quotes Ganz’s disclosure that in “bipolar electrode arrangements, both the positive and negative electrodes serve as treating electrodes.” *Id.* (quoting Ex. 1005 ¶ 56). Petitioner also quotes Ganz’s disclosure that in “embodiments wherein the electrodes are provided as electrode pairs, biopolar [sic] electrodes are desirable, with one electrode in the pair being a positive electrode and the other electrode being a negative electrode.” *Id.* at 15–16 (quoting Ex. 1005 ¶ 56).

Patent Owner argues that “Petitioners fail to identify any disclosure in Ganz regarding any electrode ‘chang[ing] or alternat[ing] between being positive or negative as the current alternates between them.” Prelim. Resp. 46. Patent Owner also argues that “Petitioner’s [sic] fail to show that any embodiment discussing coagulation utilizes bipolar electrodes, rather than monopolar electrodes that Ganz also discloses.” *Id.* (citing Ex. 1005 ¶¶ 11, 13, 55; Ex. 2030 ¶ 81).

Patent Owner’s arguments are not persuasive.

On this record, Petitioner persuades us that Ganz discloses bipolar electrodes as claimed. *See, e.g.*, Ex. 1005 ¶ 11.

Patent Owner’s argument is premised on a position that the claim requires a particular type of bipolar electrode that is different from that disclosed in Ganz. *See* Prelim Resp. 47. In particular, Patent Owner’s argument appears premised on the claim excluding the “Intracel configuration,” which includes “alternating rows of commonly-polarized electrodes.” *See id.* at 48 (citing Pet. 17; Ex. 2030 ¶¶ 83, 84); *see also id.* at

22 (noting that during the ITC Investigation, “the ALJ construed the term ‘a plurality of electrodes, the electrodes being bipolar’ to exclude configurations where the electrodes are arranged as alternating rows of commonly polarized electrodes (i.e., the ‘Intracel’ configuration[]])” (citing Ex. 1028, 53).

Although Patent Owner references the “Intracel” configuration from the ITC Investigation (*see* Prelim. Resp. 22 (citing Ex. 1028, 53)), we do not construe the claim term “bipolar” in a manner that would exclude the bipolar electrodes disclosed in Ganz. *See supra* § IV.B. Patent Owner does not expressly advance a construction to support its position (*see, e.g.*, Prelim. Resp. 30) and the claim does not recite language that would appear to limit “bipolar” in a manner that excludes Ganz’s bipolar electrodes (*see* Ex. 1001, 10:47–55). While Patent Owner references the Claim Construction Order from the ITC Investigation (*see* Prelim. Resp. 22 (citing Ex. 1028, 39–62)), the claim term “electrodes being bipolar” was simply construed in the ITC Proceeding by its plain and ordinary meaning to mean that “electrodes change or alternate between being positive or negative as the current alternates between them” (*see* Ex. 1028, 40).

At this preliminary stage of the proceeding, based on the current briefing and evidence, including Ganz’s disclosure of “bipolar electrodes” (*see, e.g.*, Ex. 1005 ¶ 11), Petitioner has shown a reasonable likelihood that Ganz discloses that its “electrodes [are] bipolar.”

(iii) “configured to be insertable into skin to be treated”

Petitioner submits that Ganz discloses this limitation. Pet. 18 (citing Ex. 1003 ¶ 84; Ex. 1035 ¶ 28). Petitioner quotes Ganz’s disclosure that its “electrode pins are placed all the way into the tissue.” *Id.* at 19 (quoting Ex.

1005 ¶51; citing Ex. 1003 ¶ 85). Petitioner further cites to Ganz’s disclosure that its “electrode pins can . . . hav[e] longer lengths, so that the tips are placed even deeper into the tissue layers.” *Id.* (quoting Ex. 1005 ¶ 51).

Petitioner further points out that Ganz discloses that its “invention relates to a device and method for treating one or more layers of tissue, for example by simultaneously imparting perforations into the one or more layers.” *Id.* (quoting Ex. 1005 ¶ 1).

Patent Owner does not contest Petitioner’s showing for this limitation. *See generally* Prelim. Resp.

At this preliminary stage of the proceeding, based on the current briefing and evidence, Petitioner has shown a reasonable likelihood that Ganz discloses that its “plurality of electrodes . . . [are] configured to be insertable into skin to be treated.”

c. Element 1(b) “a radio frequency (RF) generation module, the RF generation module electrically coupled to the plurality of electrodes and configured to provide an Alternating Current (AC) RF signal to the plurality of electrodes”

Petitioner submits that Ganz discloses limitation 1(b). Pet. 20 (citing Ex. 1003 ¶ 88).

(i) “a radio frequency (RF) generation module, the RF generation module electrically coupled to the plurality of electrodes”

Petitioner contends that Ganz discloses this limitation, submitting that Ganz’s “energy source” corresponds to “a radio frequency (RF) generation module,” where the RF generation module is “electrically coupled to the plurality of electrodes.” Pet. 20 (citing Ex. 1003 ¶ 90; Ex. 1035 ¶ 31).

Petitioner explains that Ganz’s device “generates electrical signal(s) having

a radio frequency,” where the device is “electrically coupled to the plurality of electrodes.” *Id.* at 20–21 (citing Ex. 1003 ¶ 90; Ex. 1035 ¶ 31).

Ganz discloses that its device “includes an energy source coupled to the plurality of electrodes.” Ex. 1005 ¶ 11. Ganz further discloses that its energy source is “configured to deliver energy selected from the group consisting of radio frequency, non-ionizing ultraviolet radiation, or microwave radiation.” Ex. 1005 ¶ 11. Based in part on these teachings, Petitioner submits that

Ganz discloses an energy source, which corresponds to “a radio frequency (RF) generation module,” where the RF generation module is “electrically coupled to the plurality of electrodes,” i.e., “a device that generates electrical signal(s) having a radio frequency,” where the device is “electrically coupled to the plurality of electrodes.”

Pet. 21.

Patent Owner does not contest Petitioner’s showing for this limitation. *See generally* Prelim. Resp.

At this preliminary stage of the proceeding, based on the current briefing and evidence, Petitioner has shown a reasonable likelihood that Ganz discloses “a radio frequency (RF) generation module, the RF generation module electrically coupled to the plurality of electrodes.”

(ii) “*configured to provide an Alternating Current (AC) RF signal to the plurality of electrodes*”

Petitioner submits that Ganz discloses that its energy source, which corresponds to the claimed “radio frequency (RF) generation module,” is “configured to provide an Alternating Current (AC) RF signal to the plurality of electrodes.” Pet 22 (citing Ex. 1003 ¶ 93). Petitioner explains that this energy source is adapted to provide an electrical signal with

oscillating current, *with alternating polarities*, and has a radio frequency, measured in MHz, to the plurality of electrodes. *Id.* (citing Ex. 1003 ¶ 93).

Petitioner's declarant, Dr. Bérubé, testifies that "Ganz discloses that the energy source delivers RF energy to the bipolar electrodes." Ex. 1003 ¶ 94 (citing Ex. 1005 ¶ 11). The cited portion of Ganz discloses, "In preferred cases, the electrodes are RF electrodes and are configured for receiving RF energy. The electrodes can be provided as a plurality of electrode pairs or even as an array of electrodes. In some cases, the electrodes are monopolar electrodes whereas in other cases the electrodes are bipolar electrodes." Ex. 1005 ¶ 11. Ganz discloses that its "electrodes are configured as RF electrodes and RF energy is delivered to the electrodes." *Id.* ¶ 58. Ganz further discloses creating "[z]ones of coagulation . . . in areas of tissue *surrounding each perforation*" formed by the electrodes. *Id.* ¶ 48 (emphasis added); *see also* Ex. 1003 ¶ 94 (citing the same). Ganz also discloses that its "electrode pattern can . . . be selected to create a zone of *coagulative tissue surrounding each perforation*." Ex. 1005 ¶ 10 (emphasis added).

Based on Ganz's disclosure, Dr. Bérubé testifies that a skilled artisan "would understand that Ganz's energy source provides alternating current (AC) having a radio frequency" and that the artisan "would know that in the field of skin treatment using RF energy to heat the tissue, the energy is delivered by an alternating current (AC) that oscillates at the RF frequency." Ex. 1003 ¶ 95 (citations omitted).

Petitioner and Dr. Bérubé further cite to a book titled "Non-Surgical Skin Tightening and Lifting," specifically, a chapter titled "Radiofrequency Energy and Hybrid Devices." *See* Pet. 23 (citing Ex. 1015); *see also* Ex. 1003 ¶ 95 (citing the same). Quoting an excerpt from the book, Dr. Bérubé testifies that "[i]n skin surgery the technology has been used for

electrocoagulation . . . and skin rejuvenation” and that in this application, a “***RF generator produces an alternating current*** that creates an electric field through the skin.” Pet. 23 (quoting Ex. 1015, 21).

Based in part on this evidence, Petitioner argues and Dr. Bérubé testifies that

Ganz discloses that the energy source, which corresponds to the claimed “radio frequency (RF) generation module” is “configured to provide an Alternating Current (AC) RF signal to the plurality of electrodes,” i.e., the energy source is “adapted to” provide “an electrical signal with oscillating current (current alternating polarities), and having a radio frequency (measured in MHz)” to the plurality of electrodes.

Pet. 24; Ex. 1003 ¶ 99.

Patent Owner disputes Petitioner’s position, specifically arguing that Ganz fails to disclose “provid[ing] an Alternating Current (AC) RF signal to the plurality of electrodes.” Prelim. Resp. 39. Dr. van der Weide testifies that “there is no mention anywhere in Ganz of alternating (or oscillating) current.” Ex. 2030 ¶ 61. Patent Owner argues that Ganz’s use of RF energy does not specify that it uses alternating current. *See* Prelim. Resp. 40.

Patent Owner speculates that Ganz may use *voltage pulses*, instead of alternating current, because another patent uses these two delivery methods as alternatives. *See* Prelim. Resp. 40–41 (citing in part Ex. 2026, 6:42–52). Patent Owner further speculates that Ganz may use *direct current pulses*. *See id.* at 41 (citing Ex. 2034 ¶¶ 5, 17, 35, 36; Ex. 2030 ¶ 65).

Patent Owner argues that “[b]ecause RF in the skin treatment context can refer to non-AC RF and POSITAs specify when they mean to refer to AC RF, Petitioners’ contention that a POSITA would understand Ganz’s generic reference to RF as AC RF is wrong.” Prelim. Resp. 42. Patent

Owner argues that “there are many patents [that] refer . . . to non-AC RF for use in skin treatment.” *Id.* at 43.

At this stage, we disagree with Patent Owner.

Even if Ganz does not expressly use the term “alternating current,” as pointed out by Patent Owner (*see* Prelim. Resp. 39–40), Petitioner has shown a reasonable likelihood that a skilled artisan would have understood that Ganz’s disclosure of bipolar electrodes to deliver radio frequency energy relies on alternating current (*see* Pet. 22–24). Indeed, Petitioner and Dr. Bérubé cite to considerable evidence to support their position. *See* Pet. 22–24; *see also* Ex. 1003 ¶ 95. For example, in support of Dr. Bérubé’s testimony that a skilled artisan would have understood that Ganz’s “energy is delivered by an alternating current (AC) that oscillates at the RF frequency,” Dr. Bérubé cites to the following evidence:

1. “Radiofrequency is a form of alternating electric current (AC current).” Ex. 1019, 63.
2. “RF energy is an alternating current that runs from the tip of an electrode to tissue that it contacts.” Ex. 1020, 150.
3. “Radiofrequency energy is a form of electrical energy, generated from lower-power (15 to 60 V), high-frequency (30 KHz [0.030 MHz] to 300 MHz) alternating current.” Ex. 1021, 452.
4. “RF energy is a form of alternating electrical current.” Ex. 1022, 2.
5. “A RF generator produces an alternating current that creates an electric field through the skin.” Ex. 1015, 21.
6. “High-frequency, alternating electric current produced by the RF generator is delivered to target tissues through an electrode.” Ex. 1023, 128.
7. “The main advantage of RF energy in medicine is a low or negligible reaction of nerves to high-frequency alternating

current (AC) in comparison to lower frequencies.” Ex. 1024, 1.

Ex. 1003 ¶ 95 n.6.

Although Patent Owner and Dr. van der Weide provide some evidence to suggest that Ganz may use *direct current pulses* or *voltage pulses* to deliver Ganz’s energy (see Prelim. Resp. 40–41), based on the current record we are skeptical of their position, as they appear to conflict with Ganz’s express teachings. Ganz’s disclosure of “RF energy,” or radio *frequency* energy, and bipolar electrodes to deliver RF energy (see, e.g., Ex. 1005 ¶ 11), suggests that electrical energy is delivered by a current alternating at the *frequency* referenced in the name, “RF energy.” See Ex. 1003 ¶ 95 (“Given Ganz’s disclosure of the energy source providing RF energy to the electrodes to generate heat for skin treatment, a POSITA would understand that Ganz’s energy source provides alternating current (AC) having a radio frequency.”).

At this preliminary stage of the proceeding, based on the current briefing and evidence, Petitioner has shown a reasonable likelihood that Ganz’s radio frequency generation module is “configured to provide an Alternating Current (AC) RF signal to the plurality of electrodes.”

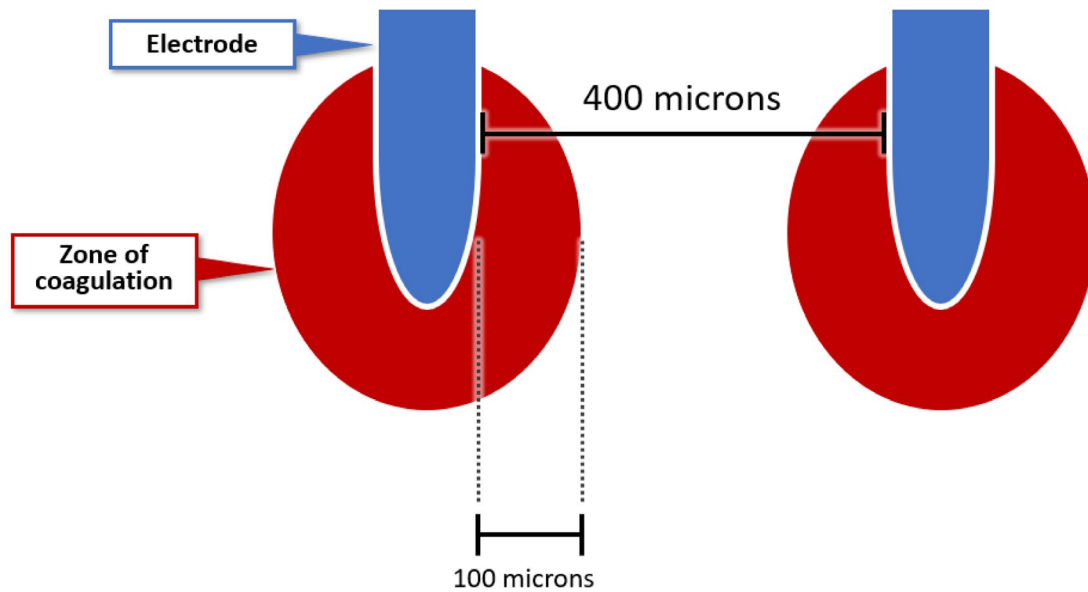
d. Element 1(c) “configured to cause coagulation around each electrode rather than coagulating between the electrodes”

Petitioner submits that Ganz discloses limitation 1(c). Pet. 25 (citing Ex. 1003 ¶ 103). Dr. Bérubé testifies that Ganz discloses, “[d]elivering RF energy to the electrodes that are inserted into the skin further creates ‘[z]ones of coagulation . . . in areas of tissue surrounding each perforation.’” Ex. 1003 ¶ 108 (quoting Ex. 1005 ¶ 48).

Patent Owner argues that Ganz fails to disclose a “plurality of electrodes, the electrodes being bipolar,” that are “configured to cause coagulation around each electrode rather than coagulating between the electrodes.” Prelim. Resp. 46.

We disagree with Patent Owner at this stage.

Ganz discloses the delivery of RF to electrodes inserted into skin for creating “[z]ones of coagulation . . . in areas of tissue surrounding each perforation.” Ex. 1005 ¶ 48. Ganz also discloses that the “electrode pattern can . . . be selected to create a zone of coagulative tissue surrounding each perforation.” *Id.* ¶ 10. Ganz further discloses that these “zones can extend from the perforation site into the tissue for a length ranging from about 5 microns to about 100 microns.” *Id.* ¶ 48. Ganz further discloses that the “electrodes are patterned in order to create perforations . . . spaced apart by between about 50 to about 400 microns.” *Id.* ¶ 47. Petitioner submits an illustration to depict the spacing of Ganz’s electrodes and “zones of coagulation” (Pet. 29), a copy of which we reproduce, below:



Petitioner's figure, reproduced above, depicts two electrodes (in blue) spaced apart by 400 microns, with the lower tip of the electrode surrounded by a "Zone of coagulation" (in red) with a radius of 100 microns around the tip. *See* Pet. 29. This embodiment has about 200 microns of spacing between the two "zones of coagulation."

Based in-part on this disclosure, Petitioner submits Ganz discloses that the plurality of electrodes are "configured to cause coagulation around each electrode rather than coagulating between the electrodes," i.e., "two or more electrodes [are] adapted to cause coagulation around each electrode without such coagulation fully extending from one electrode to another electrode." Pet. 30.

At this preliminary stage of the proceeding, based on the current briefing and evidence, Petitioner has shown a reasonable likelihood that Ganz's radio frequency generation module is "configured to cause coagulation around each electrode rather than coagulating between the electrodes."

b. Summary of Independent Claim 1

At this preliminary stage, and considering Patent Owner's arguments regarding alleged objective indicia of nonobviousness discussed below in Section IV.G, Petitioner has shown a reasonable likelihood that claim 1 would have been obvious based on Ganz in view of a POSITA's knowledge.

3. Claims 2, 11–15, 23, 24, and 26

Petitioner contends, with citations to the evidence and testimony, that Ganz discloses or renders obvious every limitation of claims 2, 11–15, 23, 24, and 26. *See* Pet. 33–37. Patent Owner does not address Petitioner's

arguments with respect to these additional claims, apart from the arguments addressed above. *See* Prelim. Resp. 57.

Upon review of the parties' arguments and supporting evidence, and based on the current state of briefing, Petitioner demonstrates a reasonable likelihood that the subject matter of claims 2, 11–15, 23, 24, and 26 would have been obvious over Ganz in view of a POSITA's knowledge.

4. Summary of Ground 1

Petitioner demonstrates a reasonable likelihood that the subject matter of claims 1, 2, 11–15, 23, 24, and 26 would have been obvious over Ganz in view of a POSITA's knowledge.

E. Ground 2: Alleged Obviousness over Ganz and Livneh

Petitioner submits that claims 1, 2, 11–15, 23, 24, and 26 would have been obvious over Ganz in view of Livneh. *See* Pet. 6, 12.

Ground 2 is like Ground 1 with the primary exception being that Petitioner alternatively argues that limitation 1[b] would have been obvious over Ganz in view of Livneh. *See* Pet. 20. In particular, Petitioner submits that “[t]o the extent that Ganz does not disclose this limitation, Ganz in combination with Livneh renders” (*id.* at 24) obvious the limitation of a RF generation module “configured to provide an Alternating Current (AC) RF signal to the plurality of electrodes” (*id.* at 21).

1. Livneh (Ex. 1006)

Livneh is an International Patent Publication titled “Apparatus and Method for Skin Tightening and Corrective Forming.” Ex. 1006, code (54). Livneh discloses an electro-surgical apparatus for applying electrical current

to skin, preferably for skin tightening procedures. *Id.* at code (57). We reproduce Figure 1 of Livneh, below:

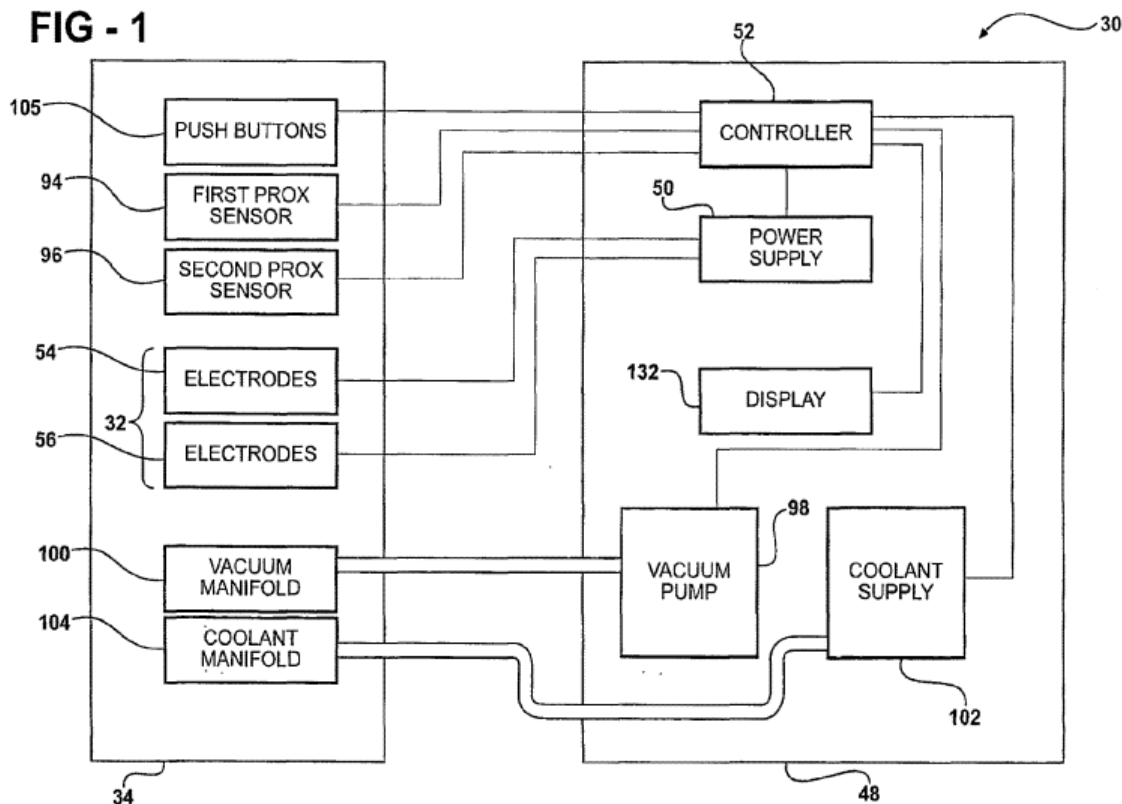


Figure 1 is a block diagram of electrosurgical apparatus 30 with interconnections between handheld unit 34, and control unit 48 in a bipolar mode of operation. *See id.* ¶¶ 10, 36. As described by Livneh,

The control unit 48 includes a power supply 50 for supplying the electrical current to the electrodes 32. The power supply 50 preferably converts commercial AC electrical power, e.g., a 120 volt, 60 hertz signal, to a radio frequency (RF) signal, i.e., an AC signal operating at a radio frequency. Preferably, a cable (not shown) or other electrical connection allows transmission of the RF signal from the power supply 50 in the control unit 48 to the electrodes 32 in the handheld unit 34. One or more wires 51 are preferably disposed within the housing 36 of the handheld unit 34 to- conduct the RF signal within the handheld unit 34.

Id. ¶ 37.

2. *Independent Claim 1*

Petitioner relies on Ganz for satisfying every limitation of claim 1, just as under Ground 1, with the exception of “configured to provide an Alternating Current (AC) RF signal to the plurality of electrodes.” *See* Pet. 13–32.

To address this limitation, Petitioner submits, “To the extent that Ganz does not disclose this limitation, however, Ganz in combination with Livneh renders this limitation obvious.” Pet. 24. Petitioner acknowledges that “Ganz does not expressly state that its energy source provides electrodes with alternating current having a radio frequency,” but argues that Livneh provides this explicit teaching. *Id.* at 30.

Petitioner cites to Livneh’s disclosure that power supply 50 supplies electrical current to electrodes 32. *Id.* (citing Ex. 1006 ¶ 37; Ex. 1003 ¶ 100). Livneh further discloses, “Preferably, a cable (not shown) or other electrical connection allows transmission of the RF signal from the power supply 50 in the control unit 48 to the electrodes 32 in the handheld unit 34.” Ex. 1006 ¶ 37; Pet. 24–25 (quoting the same). Livneh also discloses that “power supply 50 preferably converts commercial AC electrical power, e.g., a 120 volt, 60 hertz signal, to a radio frequency (RF) signal, i.e., an AC signal operating at a radio frequency.” Ex. 1006 ¶ 37; *see also* Pet. 25 (quoting the same). Livneh further discloses that “in bipolar operation . . . the RF signal is applied through a first set 54 of the electrodes 32 and utilizes a second set 56 of electrodes 32 as a return path to the power supply 50.” Ex. 1006 ¶ 39; *see also* Pet. 25 (citing the same).

Petitioner reasons that “[a] POSITA implementing Ganz’s device would have been motivated to use Livneh’s power supply that provides an

alternating current having a radio frequency.” Pet. 31 (citing Ex. 1003 ¶ 113). Dr. Bérubé testifies that a skilled artisan would have understood that “providing electrodes with alternating current having a radio frequency generates heat suitable for skin treatment.” Ex. 1003 ¶ 117. In support of this testimony, Dr. Bérubé cites to the following evidence:

A RF generator produces an alternating current that creates an electric field through the skin. The electric field shifts polarity millions of times per second, causing a change in orientation of charged particles within the electric field. Tissue resistance to this particle movement generates heat.

Ex. 1015, 21; Ex. 1003 ¶ 117 (quoting the same).

Patent Owner argues that a skilled artisan would not have combined Ganz with Livneh as Petitioner has done. *See* Prelim. Resp. 44. In particular, Patent Owner contends that “Petitioners offer no evidence that Livneh’s power supply would be suitable for Ganz’s purpose.” *Id.* Patent Owner further contends that Ganz uses power in the range of 50 to 200 watts, and “[t]here is no evidence that Livneh’s power supply would work in Ganz’s device.” *Id.* Patent Owner argues that “Petitioners offer only conclusory and unsupported expert testimony that AC RF is generally ‘suitable for skin treatment’.” *Id.* at 45 (citation omitted).

On this record, we disagree with Patent Owner’s position.

Petitioner and Dr. Bérubé provide multiple citations to the record to support the proposed combination of Ganz and Livneh. *See* Pet. 30–32; *see also* Ex. 1003 ¶¶ 113–121. Ganz and Livneh appear similar in their operation and, based on Ganz’s teachings, we agree that a skilled artisan would have found it obvious to have used Livneh’s power supply for Ganz’s device. *See* Pet. 31 (“A POSITA implementing Ganz’s device would have been motivated to use Livneh’s power supply that provides an alternating

current.”). Both Ganz and Livneh teach using heat for skin treatment. *See* Ex. 1005 ¶ 30; *see also* Ex. 1006 ¶ 2. Further, both Ganz and Livneh teach the use of RF electrodes for skin treatment. *See* Ex. 1005 ¶ 11; *see also* Ex. 1006 ¶ 39. Both Ganz and Livneh teach using bipolar electrodes, as well. *See* Ex. 1005 ¶ 56; *see also* Ex. 1006 ¶ 39. Based on these and other teachings, Petitioner reasons that a POSITA would have understood that providing electrodes with alternating current having a radio frequency generates heat suitable for skin treatment, and as Dr. Bérubé explains, the generation of heat causes collagen denaturation and/or coagulation that are favorable for skin treatment. Pet. 31 (citing Ex. 1003 ¶ 117).

Upon review of the parties’ arguments and supporting evidence, and based on the current state of briefing, Petitioner demonstrates a reasonable likelihood that a skilled artisan would have used Livneh’s power supply with Ganz’s device and that the combined device would have had a “radio frequency (RF) generation module . . . electrically coupled to the plurality of electrodes and configured to provide an Alternating Current (AC) RF signal to the plurality of electrodes.”

At this preliminary stage, and considering Patent Owner’s arguments regarding alleged objective indicia of nonobviousness discussed below in Section IV.G, Petitioner has shown a reasonable likelihood that claim 1 would have been obvious based on Ganz in view of Livneh.

3. *Claims 2, 11–15, 23, 24, and 26*

Petitioner contends, with citations to the evidence and testimony, that Ganz in view of Livneh discloses or renders obvious every limitation of claims 2, 11–15, 23, 24, and 26. *See* Pet. 33–37. Patent Owner does not

address Petitioner's arguments with respect to these additional claims, apart from the arguments addressed above. *See* Prelim. Resp. 57.

Upon review of the parties' arguments and supporting evidence, and based on the current state of briefing, Petitioner demonstrates a reasonable likelihood that the subject matter of claims 2, 11–15, 23, 24, and 26 would have been obvious over Ganz in view of Livneh.

4. *Summary of Ground 2*

Petitioner demonstrates a reasonable likelihood that the subject matter of claims 1, 2, 11–15, 23, 24, and 26 would have been obvious over Ganz in view of Livneh.

F. Grounds 3–6: Alleged Obviousness over Ganz in view of Hantash, Livneh, and Lee

Petitioner identifies where it contends that Ganz in view of Hantash, Livneh, and Lee, in various combinations, teach or suggest every limitation of claims 2–10, 15–22, 25, and 27–29 under Grounds 3–6. *See* Pet. 6, 38–68. Patent Owner does not address Petitioner's arguments with respect to these additional claims, apart from the arguments addressed above. *See* Prelim. Resp. 58–59.

Upon review of the parties' arguments and supporting evidence, and based on the current state of briefing, Petitioner demonstrates a reasonable likelihood that the subject matter of claims 2–10, 15–22, 25, and 27–29 would have been obvious over Ganz, Hantash, Livneh, and Lee, in the combinations set forth in Grounds 3–6.

G. Objective Indicia of Nonobviousness

Patent Owner argues that objective indicia of nonobviousness support denial of institution on the merits. *See* Prelim. Resp. 59–65; *see also* PO Sur-reply 6. The evidence presented by Patent Owner includes:

- (1) the commercial success of the Sylfirm X RF Microneedling device, which Patent Owner argues is “at least partially” a result of “incorporating the ’836 Patent’s technology.” Prelim. Resp. 61–64.
- (2) industry praise of “[t]he localized and targeted coagulation claimed by the ’836 Patent.” Prelim. Resp. 64.
- (3) long-felt but unsolved need in the industry addressed by the ’836 patent. Prelim. Resp. 65.

Petitioner argues that Patent Owner “did not demonstrate a nexus between its claims and its evidence of commercial success and industry praise.” Pet. Reply 6.

“For objective evidence of secondary considerations to be relevant, there must be a nexus between the merits of the claimed invention and the objective evidence.” *Volvo Penta of the Ams., LLC v. Brunswick Co.*, 81 F.4th 1202, 1210 (Fed. Cir. 2023). That is, “there must be a ‘legally and factually sufficient connection’ between the evidence and the patented invention.” *Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366 (Fed. Cir. 2019) (quoting *Henny Penny Corp. v. Frymaster LLC*, 938 F.3d 1324, 1332 (Fed. Cir. 2019)).

“The patentee bears the burden of showing that a nexus exists.” *Fox Factory*, 944 F.3d at 1373. The patent owner’s burden can be satisfied “in two ways: (1) via a presumption of nexus, or (2) via a showing that the evidence is a direct result of the unique characteristics of the claimed invention.” *Volvo*, 81 F.4th at 1210. “When a nexus is presumed, ‘the

burden shifts to the party asserting obviousness to present evidence to rebut the presumed nexus.” *Id.* (quoting *Brown & Williamson Tobacco Corp. v. Philip Morris, Inc.*, 229 F.3d 1120, 1130 (Fed. Cir. 2000)).

“A patent owner is entitled to a presumption of nexus when it shows that the asserted objective evidence is tied to a specific product that ‘embodies the claimed features, and is coextensive with them.’” *Volvo*, 81 F.4th 1210 (quoting *Brown & Williamson*, 229 F.3d at 1130). “Conversely, ‘[w]hen the thing that is commercially successful is not coextensive with the patented invention—for example, if the patented invention is *only a component* of a commercially successful machine or process,’ the patentee is not entitled to a presumption of nexus.” *Fox Factory*, 944 F.3d at 1373 (emphasis added).

Patent Owner has not provided sufficient evidence at this stage of the proceeding to meet its burden of establishing a nexus between the Sylfirm X Microneedling device and the Challenged Claims. In particular, Patent Owner fails at this stage of the proceeding to establish a presumption of nexus and fails to demonstrate that the evidence of commercial success and industry praise is the direct result of the unique characteristics of the features claimed in the ’836 patent.

As discussed above, a patent owner may establish a rebuttable presumption of nexus if it shows that the asserted objective evidence is tied to a specific product that both embodies the claimed features and is coextensive with them. *See Volvo*, 81 F.4th 1210. Here, Patent Owner does not provide an analysis of the co-extensiveness between the Sylfirm X device and the ’836 patent’s claims. *See Prelim. Resp.* 62 (citing Ex. 2030 ¶¶ 35–47). Rather, Patent Owner acknowledges that the success of the Sylfirm X device is only “at least partially” due to the technology claimed

by the '836 patent. *See id.* at 61–62 (“products utilizing the inventions have achieved commercial success, at least partially, from incorporating the '836 Patent’s technology”).

Moreover, as Petitioner highlights, Patent Owner appears to attribute the commercial success of the Sylfirm X device to a different, unrelated invention. *See* Pet. Reply 7–8 (explaining that Patent Owner argued in another proceeding that a *desired distance*, not claimed in the '836 patent, was the cause of the commercial success). Yet, “[t]he same evidence of secondary considerations cannot be presumed to be attributable to two different combinations of features.” *Fox Factory*, 944 F.3d at 1378. “Where a product embodies claims from two patents, a presumption of nexus can be appropriate *only if* the claims of both patents generally cover the same invention.” *Id.* at 1377; *see also, e.g., WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1324–25 (Fed. Cir. 2016) (presuming nexus between a product and the asserted claims of two related patents where the patents covered essentially the same invention, and the court identified a single claim as representative of both patents). Here, Patent Owner fails to set forth which patents “generally cover” the Sylfirm X device. *See generally* Prelim. Resp.; *see also generally* PO Sur-reply.

Thus, without a presumption of nexus, the burden remains on Patent Owner to prove the degree to which evidence of objective indicia is attributable to the Challenged Claims. On this record, Patent Owner fails to do so.

Patent Owner does not explain sufficiently how its evidence of objective indicia is a direct result of the features of the Challenged Claims, as opposed to other important features, such as the “desired distance” recited in at least one other patent. *See* Prelim. Resp. 59–65; *see also* PO Sur-reply

6–9; *see* Pet. Reply 7–8. For example, Patent Owner fails to explain sufficiently how the evidence of objective indicia correlates to the recited features such as *bipolar electrodes* or *alternating current*. *See, e.g.*, PO Sur-reply 8.

Because Patent Owner does not adequately explain the correlation between the Challenged Claims and the objective evidence it offers, at this preliminary stage of the proceeding, we do not find a nexus between the Challenged Claims and the objective indicia of nonobviousness.

V. CONCLUSION

After considering the evidence and arguments presented in the Petition, Preliminary Response, Reply, and Sur-reply, we determine that the information presented shows a reasonable likelihood that Petitioner would prevail in establishing that claims 1–29 are unpatentable.

VI. ORDER

Accordingly, it is

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is instituted for claims 1–29 of the '836 patent on the unpatentability 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, which commences on the entry date of this decision.

IPR2024-00386
Patent 9,480,836 B2

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