

Filed on behalf of: InductEV, Inc.

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INDUCTEV, INC.,
Petitioner,

v.

WITRICITY CORPORATION,
Patent Owner.

Case IPR2023-01182
Patent 8,461,719

**PETITIONER'S REPLY TO
PATENT OWNER'S PRELIMINARY RESPONSE**

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STATUTES

35 U.S.C. § 325(d)	1, 3
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Exhibit List

Ex.	Description
1001	U.S. Patent No. 8,461,719 B2 (“719 patent”)
1002	File History for U.S. Patent No. 8,461,719 B2 (“719 FH”)
1003	Declaration of Mark Allen in Support of Petition for <i>Inter Partes</i> Review (“Allen Decl.”)
1004	Curriculum Vitae of Mark Allen
1005	U.S. Patent No. 8,855,554 B2 (“Cook-554”)
1006	File History for U.S. Patent No. 8,855,554 B2 (“Cook Provisional” or “CProv”)
1007	U.S. Patent No. 8,378,523 B2 (“Cook-523”)
1008	U.S. Patent Application Publication No. 2007/0145830 A1 (“Lee”)
1009	International Patent Publication No. WO 2007/101902 A1 (“Pohjonen”)
1010	Estill I. Green, <i>The Story of Q</i> , in 43 Am. Scientist 584 (1955) (“Story of Q”)
1011	U.S. Patent No. 8,143,844 B2 (“Tamura”)
1012	Frederick Emmons Terman, <i>Electronic and Radio Engineering</i> (4th ed. 1955) (“Terman”)
1013	U.S. Patent No. 7,773,041 B2 (“Wang-041”)
1014	U.S. Patent No. 7,623,078 B2 (“Wang-078”)
1015	U.S. Patent No. 8,138,977 B2 (“Zhang”)
1016	U.S. Patent No. 9,223,345 B2 (“Dabov”)
1017	U.S. Patent Application Publication No. 2002/0153531 (“Levine”)
1018	C. Yeh et al., <i>Dielectric Ribbon Waveguide--An Optimum Configuration for Ultralow-Loss Millimeter/Submillimeter Dielectric Waveguide</i> , prepared for Space Systems Division Airforce Command, by The Aerospace Corporation (Apr. 14, 1991) (“Yeh”)

Ex.	Description
1019	U.S. Patent No. 9,774,086 B2 (“Cook-086”)
1020	U.S. Patent No. 7,741,734 B2 (“Joannopoulos”)
1021	U.S. Patent Application Publication No. 2009/0299918 A1 (“Cook-918”)
1022	<i>InductEV Inc. v. Witricity Corp.</i> , No. IPR2021-01165, Paper 41 (Mar. 6, 2023)
1023	Kathleen O’Brien, <i>Inductively Coupled Radio Frequency Power Transmission System for Wireless Systems and Devices</i> (2007) (Ph.D. dissertation, Technische Universität Dresden (“O’Brien”))
1024	File History for Patent Application No. 12/649,635 (“12/649,635 FH”)
1025	File History for Patent Application No. 12/639,963 (“12/639,963 FH”)
1026	<i>InductEV Inc. v. WiTricity Corp.</i> , No. IPR2021-01166, Paper 35 (Dec. 20, 2022)
1027	U.S. Patent No. 7,599,743 B2 (“Hassler”)
1028	U.S. Patent No. 8,446,045 B2 (“Smith”)
1029	<i>Flat</i> , The American Heritage Dictionary of the English Language (4th ed. 2000)
1030	<i>Flat</i> , Concise Oxford American Dictionary (2006)

Discretionary denial is not warranted here. Grounds 1 and 3 include a reference (Pohjonen) that was undisputedly not presented to the Office, nor was any similar art. That, alone, demonstrates “325(d) is not sufficiently implicated,” and the Board need not conduct further analysis. *Fusion Orthopedics, LLC v. Extremity Med., LLC*, IPR2023-00894, Paper 15 at 34-35 (Nov. 17, 2023). In any event, discretionary denial is also not warranted for Grounds 2 and 4, which use references that were listed on the face of the '719 patent, but never discussed by the Examiner or Patent Owner. The Examiner materially erred in overlooking their specific teachings and issuing the '719 patent, as demonstrated in the Petition. Indeed, Patent Owner does not dispute the merits of any Ground, so trial should be instituted.

I. Grounds 1 and 3: Pohjonen Was Not Before the Office

For Grounds 1 and 3, discretionary denial is not warranted at Step 1 of the Section 325(d) test because neither the same nor substantially the same art or arguments were presented to the Office. *Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 8 (Feb. 13, 2020) (precedential). Grounds 1 and 3 each rely on Pohjonen to teach the “enclosed in a low loss tangent material” limitation, and Pohjonen undisputedly was not presented to the Office. POPR 20-21. Patent Owner's two arguments for why Pohjonen nonetheless warrants 325(d) denial are both wrong.

First, Patent Owner argues “Pohjonen is the same or substantially the same as

the art (Cook-492) cited and previously considered and discussed by the Examiner.” POPR 12. That is not correct. Notably, Patent Owner provides no comparison between Pohjonen and Cook-492—nor any other evidence—to support its conclusory assertion that the two are “duplicative.” POPR 12 n.14. Nor could it. Pohjonen shares no inventors, figures, claims, or disclosures with Cook-492. Pohjonen is directed to “outer cover[s]” for a “portable radio device” with an antenna “inside said outer cover,” while Cook-492 is directed to “increasing the Q factor of a resonator” and only discloses antennas external to (“mounted on”) a housing. Pohjonen Abstract; Cook-492 Title, Fig. 6, ¶¶ 46-48.

As the Petition explains, Pohjonen teaches the claimed enclosure made from “low loss tangent material” by disclosing “making the outer cover of a portable radio device” with an internal antenna from a “very low loss thermoplastic,” preferably with a “loss tangent value ... less than 0.005.” Pet. 16, 35-38; Pohjonen 2-5, 7. Cook-492, by contrast, contains *no discussion* of outer covers or their loss tangents. Patent Owner does not contend otherwise. Institution is therefore warranted, because Pohjonen “has never before been considered by the Office” and “is not cumulative” of other art. *Oticon Med. AB v. Cochlear Ltd.*, IPR2019-00975, Paper 15 at 10, 15-16 (Oct. 16, 2019) (precedential).

Second, Patent Owner argues that the Petition describes Pohjonen only “as being within the general knowledge of a POSA,” and therefore the Examiner

“presumptively knew, and therefore considered and evaluated” the reference during prosecution. POPR 21. That mischaracterizes the Petition, which proposes express obviousness combinations of Cook-554 and Pohjonen (Ground 1) or Cook-523 and Pohjonen (Ground 3). *E.g.* Pet. 2-3 (identification of challenges), 17-21 (“a POSA would have and could have enclosed Cook-554’s second resonator in Pohjonen’s low loss tangent material”), 55-58. It also mischaracterizes the law. No case supports Patent Owner’s novel proposition that, because examiners may be considered POSAs, every examiner has “presumptively ... considered and evaluated” every reference within the knowledge of a POSA for purposes of the Section 325(d) analysis. POPR 21. If that were the law, *every* petition would fail Step 1 of the *Advanced Bionics* test, because a POSA is presumptively aware of all relevant prior art. But that is not the law, and references not considered by the Office, like Pohjonen, should not bar institution. *Oticon* at 15-16, 20.

Because at least Grounds 1 and 3 contain art not previously presented, “325(d) is not sufficiently implicated.” *Fusion* at 34-35. The Board should conclude its analysis and institute the petition, and need not consider the remaining grounds. *Id.* (instituting trial where “four of Petitioner’s seven Grounds” presented new art); *Shenzen Chic Elecs. Co. v. Pilot, Inc.*, IPR2023-00810, Paper 12 at 21 n.11 (Nov. 8, 2023) (instituting trial based on 5 of 11 grounds passing the *Advanced Bionics* test, and “declin[ing] to consider ... 325(d) arguments” against remaining grounds).

II. Grounds 2 and 4: The Examiner Materially Erred by Overlooking Lee, Cook-523, and Cook-554

Should the Board elect to consider them, Grounds 2 and 4 also do not warrant discretionary denial. Although Lee, and the published applications of Cook-523 and Cook-554, are listed on the face of the '719 patent, neither the Examiner nor Patent Owner discussed them during prosecution. Because “the record of the Office’s previous consideration of the art is not well developed or silent,” and the art discloses the claim limitations for the reasons explained in the Petition, the Examiner erred at Step 2 by “misapprehend[ing] or overlook[ing] specific teachings of the relevant prior art.” *Advanced Bionics* at 10, 8-9 nn. 9-10.

Specifically, because Cook-554 (Ground 2) and the combination of Lee and Cook-523 (Ground 4) each render obvious Claim 17 of the '719 patent for the reasons explained in the Petition, it was material error for the Examiner to overlook these references and issue claim 17. Pet. 38-53, 63-80; *Shenzen* at 21 (Petitioner has “shown that the Office erred” where “the record does not reflect any substantive evaluation of [the art] in an Office action” and the Petition “demonstrate[s] sufficiently ... that the challenged claims would have been obvious”).

For example, Claim 17 was allowed because none of the considered prior art purportedly disclosed “a coil of a plurality of turns ... connected to a network of capacitors ... wherein a characteristic thickness [of the resonator] ... is much less than a characteristic size.” '719 FH 755. But Lee teaches exactly that: a

“substantially flat” coil with “multiple turns,” connected to “a bank of switched capacitors,” whose “flat” thickness is much less than its characteristic size (i.e. spherical radius). Lee Abstract, ¶¶ 26, 75, Fig. 12; Pet. 78-80. Cook-554 similarly describes “flat panel” resonators whose radiuses are shown and described to be much larger than the “thin” coil. Cook-554 13:4-41, 15:38-54, Figs. 11, 14; Pet. 47-53.

Patent Owner's arguments are not to the contrary. It does not dispute that Lee or Cook-554 disclose the “thickness” limitation, instead comparing those references to the unrelated Cook-492 used in a rejection. POPR 15-16, 19-20. But it is irrelevant at Step 2 whether Lee or Cook-554 are similar to Cook-492: that would not change the Examiner's material error in overlooking their teachings. *Advanced Bionics* at 8-9. In any event, the teachings of Lee and Cook-554 go beyond those of Cook-492 with respect to resonator thickness. Cook-554 states its resonators are “flat” with “thin” coils, and confirms this in side view Figures 11 and 12. Cook-554 Figs. 11-12, 13:4-41; Pet. 47-53. Lee similarly describes and depicts its resonator as “substantially flat.” Lee ¶ 26, Fig. 12; Pet. 79-80. Patent Owner points to Cook-492's Figure 7 as allegedly disclosing a “flat antenna” (POPR 15) but Cook-492 never uses those words or shows a side view. Even if true, Patent Owner's argument only confirms material error. The Examiner never cited or discussed Cook-492's Figure 7—nor any other alleged “flat antenna” from other references Patent Owner cites—in any Office Action. *Cf.* POPR 12-20; *Advanced Bionics* at 8-9 nn.9-10.

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), I certify that on this 21st day of December, 2023, a true and correct copy of the foregoing **Petitioner's Reply to Patent Owner's Preliminary Response** was served by electronic mail on Patent Owner's lead and backup counsel at the following email addresses:

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