

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HANWHA SOLUTIONS CORPORATION,

Petitioner,

v.

MAXEON SOLAR PTE. LTD.,

Patent Owner.

Case No. IPR2024-01203

U.S. Patent No. 8,222,516

**PETITIONER'S OPPOSITION TO PATENT OWNER'S
MOTION TO EXCLUDE**

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
II.	LEGAL STANDARD.....	3
III.	ARGUMENT	4
	A. Exhibit 1071 Should Not Be Excluded	4
	B. Exhibit 1081 Should Not Be Excluded	5
	C. Exhibit 1083 Should Not Be Excluded	10
	D. The Remaining Challenged Exhibits Should Not be Excluded	12
IV.	CONCLUSION	15

TABLE OF AUTHORITIES

	Page(s)
CASES	
<i>ABS Glob., Inc. v. XY, LLC</i> , IPR2018-01224, Paper 28 (P.T.A.B. Dec. 9, 2018)	5
<i>Asetek Danmark A/S v. Coolit Sys., Inc.</i> , IPR2020-00825, Paper 50 (P.T.A.B. Oct. 12, 2021).....	5
<i>Casper Sleep Inc. v. Werner Media Partners, LLC</i> , IPR2024-00474, Paper 60 (P.T.A.B. Apr. 24, 2025)	10, 12, 15
<i>Chicago Mercantile Exch., Inc. v. 5th Mkt., Inc.</i> , CBM2014-00114, Paper 35 (P.T.A.B. Aug. 18, 2015).....	6
<i>Costar Realty Info., Inc. v. Clantech, Inc.</i> , IPR2022-00799, Paper 77 (P.T.A.B. Nov. 21, 2023).....	<i>passim</i>
<i>Google Inc. v. Intell. Ventures II LLC</i> , IPR2014-00787, Paper 91, 20 (P.T.A.B. July 24, 2020).....	5
<i>Grunenthal GmbH v. Antecip Bioventures II LLC</i> , PGR2019-00026, Paper 24 (P.T.A.B. July 28, 2020)	14, 15
<i>Hilgraeve, Inc. v. Symantex Corp.</i> , 271 F. Supp. 2d 964 (E.D. Mich 2003)	14
<i>Hulu, LLC v. Sound View Innovations, LLC</i> , IPR2018-01039, Paper 29 (P.T.A.B. Dec. 20, 2019)	7, 14
<i>Intuitive Surgical, Inc. v. P Tech, LLC</i> , IPR2020-00650, Paper 33 (P.T.A.B. Sept. 8, 2021)	3
<i>Kirk v. Raymark Indus., Inc.</i> , 61 F.3d 147 (3d Cir. 1995)	5
<i>Nobel Biocare Servs. AG v. Intradent USA, Inc.</i> , 903 F.3d 1365 (Fed. Cir. 2018)	7, 14

<i>Open Text S.A. v. Box, Inc.</i> , Case No. 13-cv-04910-JD, 2015 WL 4940798 (N.D. Cal. Aug. 19, 2015)	14
<i>Power Integrations, Inc. v. Semi-Conductor Components Indus., LLC</i> , IPR2017-01903, Paper 9 (P.T.A.B. Mar. 19, 2018).....	9
<i>Protect Animals With Satellites, LLC v. OnPoint Sys., LLC</i> , IPR2021-01483, Paper 69 (P.T.A.B. Mar. 2, 2023).....	6
<i>SRI Int’l, Inc. v. Internet Sec. Sys., Inc.</i> , 511 F.3d 1186 (Fed. Cir. 2008)	8, 9
<i>Unified Pats. Inc. v. Sound View Innovations, LLC</i> , IPR2018-00599, Paper 50 (P.T.A.B. Sept. 9, 2019)	5
<i>Weber, Inc. v. Provisur Techs., Inc.</i> , 92 F.4th 1059 (Fed. Cir. 2024)	8
<i>Xactware Sols., Inc. v. Pictometry Int’l Corp.</i> , IPR2016-00594, Paper 46 (P.T.A.B. Aug. 24, 2017).....	11
<i>Yeda Rsch. v. Mylan Pharms. Inc.</i> , 906 F.3d 1031 (Fed. Cir. 2018)	11
RULES AND STATUTES	
37 C.F.R. §42.20(c).....	3
37 C.F.R. §42.62(a).....	3
Fed. R. Evid. 703	10, 12, 15
Fed. R. Evid. 801(c).....	4, 5
Fed. R. Evid. 803(16).....	15
Fed. R. Evid. 807	14
Fed. R. Evid. 807(a)(2)	15

I. INTRODUCTION

Maxeon Solar's ("Maxeon") Motion to Exclude ("Motion") should be denied.

The Petition was supported by extensive evidence demonstrating the obviousness of the challenged claims, including Dr. Holman's testimony and multiple corroborating references. Petitioner's Reply further explained how Maxeon's Patent Owner Response ("POR") and the testimony of its expert Dr. Ruby confirmed the obviousness of the challenged claims. Petitioner's Reply also included additional auxiliary exhibits that were either introduced at Dr. Ruby's deposition or used to corroborate Dr. Holman's testimony in his reply declaration (Ex.1077).

Maxeon's Motion does not challenge the Petition's supporting evidence or Dr. Holman's testimony.¹ Instead, Maxeon resorts to raising meritless challenges to the auxiliary references submitted with the Petitioner's Reply. Maxeon's Motion not only misstates the undisputed record evidence but also mischaracterizes Petitioner's reliance on the challenged evidence and advances legally incorrect arguments.

First, Maxeon objects to the submission of Dr. Ruby's deposition testimony from a related proceeding (Ex.1071)—which was introduced as an exhibit during Dr. Ruby's deposition in this proceeding—as hearsay. But Petitioner does not rely

¹ Maxeon did not cross-examine Dr. Holman on his reply declaration (Ex.1077).

on this deposition testimony (including for the truth of the matter asserted) and instead submitted Ex.1071 to provide the full scope of Dr. Ruby's deposition testimony in this proceeding.

Second, Maxeon objects to an academic article (Ex.1081) on the basis that it is not a printed publication. But Maxeon's argument ignores that Petitioner does not rely on the article as prior art and instead only uses Exhibit 1081 as corroborating evidence of its expert's testimony. Regardless, Petitioner has provided unchallenged evidence demonstrating the paper's authenticity.

Third, Maxeon objects to another academic article (Ex.1083) as not prior art. But Petitioner never claimed this article was prior art. Maxeon's objection is based on a mischaracterization of Petitioner's arguments.

Fourth, Maxeon objects to multiple exhibits as unauthenticated hearsay. Maxeon's contentions ignore that Petitioner submitted an unchallenged declaration establishing the authenticity of the challenged references. Regardless, whether these references were publicly available misunderstands their use in this proceeding, which is simply to corroborate the testimony of Dr. Holman (or in one case for completeness because of its use at Dr. Ruby's deposition). None of the challenged exhibits are hearsay because the exhibits are offered as evidence of what they

describe, and not for the truth of the matters asserted. And in any event, experts are permitted to rely on hearsay to support their opinions under FRE 703.

Petitioner respectfully suggests that the challenged claims should be evaluated on the basis of a complete record, and that Maxeon's Motion should be denied in its entirety.

II. LEGAL STANDARD

The Consolidated Trial Practice Guide sets forth the type of relief that can be requested in a motion to exclude:

A motion to exclude must explain why the evidence is not admissible (e.g., relevance or hearsay) but may not be used to challenge the sufficiency of the evidence to prove a particular fact. A motion to exclude is not a vehicle for addressing the weight to be given evidence—arguments regarding weight should appear only in the merits documents. Nor should a motion to exclude address arguments or evidence that a party believes exceeds the proper scope of reply or sur-reply.

Pat. Trial & Appeal Bd. Consol. Prac. Guide § II.K (last visited Nov. 10, 2025), available at <https://www.uspto.gov/patents/ptab/trial-practice-guide>. “Patent Owner, as the moving party, bears the burden of establishing that it is entitled to the requested relief.” *Intuitive Surgical, Inc. v. P Tech, LLC*, IPR2020-00650, Paper 33 at 40 (P.T.A.B. Sept. 8, 2021) (citing 37 C.F.R. §§42.20(c), 42.62(a)).

III. ARGUMENT

A. Exhibit 1071 Should Not Be Excluded

Exhibit 1071 is Dr. Ruby's deposition transcript from *Canadian Solar, Inc. v. Maxeon Solar Pte, Ltd.*, IPR2024-01039, IPR2024-1040. Petitioner questioned Dr. Ruby about his prior testimony at his deposition for this proceeding (Ex.1075-Ruby-Tr., 21:4-22:9), and Petitioner filed all deposition exhibits in this proceeding for completeness. As a result, Exhibit 1071 is relevant to the patentability of the challenged claims.

Nonetheless, Maxeon seeks to exclude Exhibit 1071 for the apparent purpose of suggesting that "Petitioner is apparently displeased with the evidence that was obtained during this proceeding." Mot., 3. Besides being an improper basis to move for exclusion, it is also incorrect. Contrary to Maxeon's suggestion, Petitioner does not rely on Exhibit 1071 to fill evidentiary gaps in the record. In fact, Petitioner does not cite Exhibit 1071 in its Petitioner's Reply, and Dr. Holman does not cite Exhibit 1071 in his reply declaration (*see* Ex.1077-Reply-Decl.). Hanwha's positions are supported with ample evidence, including Dr. Holman's testimony (*e.g.*, Ex.1003-Decl.; Ex.1077-Reply-Decl.) that is supported by extensive literature and Dr. Ruby's deposition testimony (Ex.1075-Ruby-Tr.) from this proceeding.

Exhibit 1071 is also not hearsay. Petitioner introduced Exhibit 1071 as evidence of what it describes, and not for the truth of its content. Fed. R. Evid.

801(c) 1972 Adv. Comm. Note (“If the significance of an offered statement lies solely in the fact that it was made, no issue is raised as to the truth of anything asserted, and the statement is not hearsay.”). Because Exhibit 1071 is not hearsay, it is immaterial whether any hearsay exception applies.²

B. Exhibit 1081 Should Not Be Excluded

Exhibit 1081 is an article dated September 2006 that was submitted to corroborate Dr. Holman's testimony that “screen printing involves heating metal paste such that it ‘fires through’ the passivation layer and creates an electrical connection with the underlying layer such as an emitter” and “only a portion of the

² Exhibit 1071 does not resemble the exhibits excluded in Maxeon's cited cases. Mot., 3-5. In those cases, the excluded testimony from other proceedings was relied on for the truth of the matter asserted. *See Asetek Danmark A/S v. Coolit Sys., Inc.*, IPR2020-00825, Paper 50 at 43 (P.T.A.B. Oct. 12, 2021); *Unified Pats. Inc. v. Sound View Innovations, LLC*, IPR2018-00599, Paper 50 at 50 (P.T.A.B. Sept. 9, 2019); *ABS Glob., Inc. v. XY, LLC*, IPR2018-01224, Paper 28 at 18 (P.T.A.B. Dec. 9, 2018); *Google Inc. v. Intell. Ventures II LLC*, IPR2014-00787, Paper 91 at 20 (P.T.A.B. July 24, 2020); *Kirk v. Raymark Indus., Inc.*, 61 F.3d 147, 163 (3d Cir. 1995) (assuming statement from prior proceeding was relied on for truth of matter asserted).

metal paste contacts the underlying layer to create an electrical connection.” Ex.1077-Reply-Decl., ¶¶42-43 (discussing claim 12 and citing Ex.1081-Pysch). Maxeon did not cross-examine Dr. Holman on this testimony or Exhibit 1081. Instead, Maxeon seeks to exclude Exhibit 1081 on the basis that it is not a printed publication and hearsay. Mot., 5-8, 12.

As an initial matter, Maxeon's motion is procedurally improper. “[T]he issue of whether there is sufficient evidence in the record . . . to demonstrate that [an exhibit] is a printed publication within the meaning of § 102(b) should be presented in the [substantive papers]—not a motion to exclude.” *Chicago Mercantile Exch., Inc. v. 5th Mkt., Inc.*, CBM2014-00114, Paper 35 at 52 (P.T.A.B. Aug. 18, 2015); *see also Protect Animals With Satellites, LLC v. OnPoint Sys., LLC*, IPR2021-01483, Paper 69 at 64 (P.T.A.B. Mar. 2, 2023) (same).³ Regardless, Petitioner does not rely on Exhibit 1081 as prior art and therefore whether it was publicly available as a

³ *See also* Trial Practice Guide § II.K (“A motion to exclude must explain why the evidence is not admissible (e.g., relevance or hearsay) but may not be used to challenge the sufficiency of the evidence to prove a particular fact. A motion to exclude is not a vehicle for addressing the weight to be given evidence—arguments regarding weight should appear only in the merits documents.”).

printed publication is immaterial. Instead, Petitioner only relies on Exhibit 1081 for corroborating Dr. Holman's testimony, and Exhibit 1081 is thus relevant to the patentability of the challenged claims.

In any event, Petitioner has established that Exhibit 1081 was publicly available before the '516 patent's February 20, 2008 priority date. Exhibit 1081 expressly states that it was presented in September 2006 at a conference in Milan, Italy (Ex.1081-Pysch, 1), and Maxeon has not identified any evidence to the contrary. Mot., 5-8; *see Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29, at 17-18 (P.T.A.B. Dec. 20, 2019) (precedential) (“[T]he indicia on the face of a reference, such as printed dates and stamps, are considered as part of the totality of the evidence.”) (citation omitted); *see also Nobel Biocare Servs. AG v. Intradent USA, Inc.*, 903 F.3d 1365, 1376 (Fed. Cir. 2018), as amended (Sept. 20, 2018) (“Although the [publication's] date is not dispositive of the date of public accessibility, its date is relevant evidence that supports the Board's finding of public accessibility at [a conference].”).

Petitioner also submitted Schultz-2008 (Ex.1090) as supplemental evidence that Exhibit 1081 was publicly available by the '516 patent's prior date. In particular, Schultz-2008 was published in a journal named *Progress in*

Photovoltaics: Research and Applications. Ex.1090-Schultz-2008, 317.⁴ Schultz-2008 has a copyright date of 2008 and states that it was received on August 7, 2007, revised on August 28, 2007, and published online on January 22, 2008. *Id.* The twenty-sixth reference cited in Schultz-2008 is Exhibit 1081 (*id.*, 324), and Maxeon does not dispute that Schultz-2008 was publicly available before the '516 patent's priority date or that it cites Exhibit 1081. Mot., 7. Schultz-2008's citation to Exhibit 1081 demonstrates that Exhibit 1081 was publicly available before the '516 patent's priority date. *See Weber, Inc. v. Provisur Techs., Inc.*, 92 F.4th 1059, 1067 (Fed. Cir. 2024) ("The standard for public accessibility is whether interested members of the relevant public could locate the reference by reasonable diligence.") (citation omitted); *see also SRI Int'l, Inc. v. Internet Sec. Sys., Inc.*, 511 F.3d 1186, 1194 (Fed. Cir. 2008) (explaining that a reference is publicly accessible when it is "disseminated or otherwise made available to the extent that persons interested and ordinarily

⁴ Maxeon's contention that "S[c]hultz-2008 is impermissible hearsay" is without merit. Mot., 7. Outside of this single sentence, Maxeon does not explain why Schultz-2008 is purportedly impermissible hearsay. *See generally, id.* In any event, Schultz-2008 is not hearsay because it is being offered as evidence of what it describes, not for the truth of the matters asserted.

skilled in the subject matter or art exercising reasonable diligence, can locate it.”)
(citation and internal quotation marks omitted).

Exhibit 1081 is readily distinguishable from the reference at issue in *Power Integrations, Inc. v. Semi-Conductor Components Indus., LLC*, IPR2017-01903, Paper 9 (P.T.A.B. Mar. 19, 2018). *See* Mot., 6-7. In *Power Integrations*, there was no evidence the conference paper at issue had been disseminated to the public at large. Rather the article was only printed and given to conference attendees. *See Power Integrations*, Paper 9, 12-13. By contrast, Petitioner, through the Schultz-2008 reference, has presented evidence that Exhibit 1081 was published in publicly accessible conference proceedings. No comparable evidence existed in *Power Integrations*.

Moreover, the authenticity and availability of Exhibit 1081 are further supported by a declaration from Mr. Gilbert Smolenski. Ex.1089, ¶8. Mr. Smolenski's declaration details how Exhibit 1081 was obtained and attests to the reference's authenticity. There is no countervailing evidence in the record. Indeed, Maxeon identifies no basis to challenge the representations in Mr. Smolenski's declaration, and Maxeon chose not to depose Mr. Smolenski about the contents of his declaration. *See Costar Realty Info., Inc. v. Clantech, Inc.*, IPR2022-00799, Paper 77 at 54-55 (P.T.A.B. Nov. 21, 2023) (holding that attorney declarations were

sufficient to authenticate exhibits). Nor does Maxeon identify any reason why Exhibit 1081 is unreliable from the face of the document.

Finally, contrary to Maxeon's suggestion (Mot., 12), Exhibit 1081 is not hearsay because it is being offered as evidence of what it describes, and not for the truth of the matter asserted. To the extent that Exhibit 1081 is hearsay (it is not), it may still be relied on by Dr. Holman in forming his opinions. *See* Fed. R. Evid. 703; *Casper Sleep Inc. v. Werner Media Partners, LLC*, IPR2024-00474, Paper 60 at 80 (P.T.A.B. Apr. 24, 2025) ("For other evidence Patent Owner seeks to exclude, we find it, like those materials addressed in Petitioner's Motion, to be materials considered by Petitioner's expert witnesses in forming their conclusions and opinions and, therefore, admissible here pursuant to Fed. R. Evid 703.").

C. Exhibit 1083 Should Not Be Excluded

Exhibit 1083 is a publication that was submitted to support Dr. Holman's testimony that in screen printing, "only a portion of the metal will 'fire through' the silicon dioxide layer to contact the emitter." Ex.1077-Reply-Decl., ¶44 (discussing claim 12 and citing Ex.1083). Maxeon contends that Exhibit 1083 is not prior art and argues in a single conclusory header that it is unauthenticated hearsay. Mot., 8. Maxeon's arguments are without merit.

First, Petitioner does not rely on Exhibit 1083 as prior art. Exhibit 1083 was submitted to corroborate Dr. Holman's unchallenged testimony. The fact that Exhibit 1083 was published in 2009 does not negate that it is still relevant to the knowledge of a POSITA. *See Yeda Rsch. v. Mylan Pharms. Inc.*, 906 F.3d 1031, 1041 (Fed. Cir. 2018) ("[T]he Board can rely on evidence other than just prior art."); *see also id.* (explaining that non-prior art can be used to provide support as to the level of ordinary skill in the art and to elucidate how a POSITA would have understood prior art disclosures). Because Petitioner does not rely on Exhibit 1083 as prior art, Maxeon has identified no meritorious reason to exclude it. At best, Maxeon's arguments go to the weight of the evidence, not its admissibility. *See Xactware Sols., Inc. v. Pictometry Int'l Corp.*, IPR2016-00594, Paper 46 at 7 (P.T.A.B. Aug. 24, 2017) (citations omitted) ("A motion to exclude is the wrong vehicle to challenge public availability, which is a substantive issue that goes to the sufficiency of the evidence, not to admissibility.").

Second, the authenticity of Exhibit 1083 is supported by Mr. Smolenski's declaration. Ex.1089, ¶10. Mr. Smolenski's declaration details how Exhibit 1083 was obtained and attests to the reference's authenticity. There is no countervailing evidence in the record, and Maxeon makes no specific arguments challenging Exhibit 1083's authenticity. *Costar*, IPR2022-00799, Paper 77, at 54-55 (holding

that attorney declarations were sufficient to authenticate exhibits). Nor does Maxeon identify any reason why Exhibit 1083 is not reliable from the face of the document.

Third, contrary to Maxeon's suggestion (Mot., 8-9), Exhibit 1083 is not hearsay because it is being offered as evidence of what it describes and not for the truth of the matters asserted. To the extent that Exhibit 1083 is hearsay (it is not), it may still be relied on by Dr. Holman in forming his opinions. *See* Fed. R. Evid. 703; *Casper*, IPR2024-00474, Paper 60, at 80.

D. The Remaining Challenged Exhibits Should Not be Excluded

Maxeon's remaining challenges to Exhibits 1072, 1074, 1078, 1079, 1080, 1082, 1084, 1085, and 1086 (collectively "Additional Challenged Exhibits") as irrelevant and unauthenticated hearsay are equally without merit. Mot., 8-14.

These auxiliary exhibits corroborate Dr. Holman's testimony or were used during Dr. Ruby's deposition. These exhibits are not relied on as themselves being pieces of prior art, and it is therefore immaterial whether they were publicly available. Exhibit 1072 was an exhibit at Dr. Ruby's deposition and was submitted as Exhibit 1072 for completeness.

The Additional Challenged Exhibits are indisputably relevant. Exhibit 1072 contains relevant information about the importance of reducing the number of processing steps in solar cell manufacturing. Exhibit 1074 provides relevant

information about the use of APCVD on the front and rear sides of a cell with front and back metal contacts. Ex.1074, 172-173. Exhibit 1078 provides relevant information about tunnel oxides in early metal-insulator-semiconductor solar cells and the oxidation processes used to fabricate tunnel oxide layers in such cells. Ex.1078, 1308, 1310-1311. Exhibit 1079 provides relevant information about the use of tunnel oxides and polysilicon emitters in solar cells. Ex.1079, 1375. Exhibit 1080 provides relevant information about solar cells with thin tunnel oxides. Ex.1080, 283-84. Exhibit 1082 provides relevant information showing that passivation stacks that contained silicon dioxide were known to survive high temperature paste firing at least as well as silicon nitride alone. Ex.1082, 167. Exhibit 1084 provides relevant information about the structure of screen-printed metal contacts in relationship to a passivation layer. Ex.1084, 110. Exhibit 1085 provides relevant information about modeling for solar cells. Ex.1085, 3.7, 4.6-4.7, 5.3, 7.6-7.8. Exhibit 1086 provides relevant information about polysilicon emitters. Ex.1086, 3-4.

The authenticity and availability of the Additional Challenged Exhibits are supported by Mr. Smolenski's declaration. Ex.1089, ¶¶3-7, 9, 11-13. Maxeon identifies no basis to challenge the representations in Mr. Smolenski's declaration. Maxeon chose not to depose Mr. Smolenski about the contents of his declaration,

which explains in detail how the Additional Challenged Exhibits were obtained and attests to their authenticity. There is no countervailing evidence in the record. *See Costar*, IPR2022-00799, Paper 77, at 54-55. Nor does Maxeon identify any reason why the Additional Challenged Exhibits are not reliable from the face of the documents. *See Hulu*, IPR2018-01039, Paper 29 at 17-18; *Nobel*, 903 F.3d at 1376.

Further, the Additional Challenged Exhibits are not hearsay because they are being offered as evidence of what they describe, and not for the truth of the matters asserted. *See Grunenthal GmbH v. Antecip Bioventures II LLC*, PGR2019-00026, Paper 24 at 45-47 (P.T.A.B. July 28, 2020) (rejecting hearsay objection and finding statement regarding copyright date admissible as evidence of publication date).⁵

Alternatively, to the extent that the publication information within Additional Challenged Exhibits is deemed hearsay, that information is the most probative source for time of publishing and thus is admissible under Fed. R. Evid. 807. *See*

⁵ Maxeon's cited cases (*e.g.*, Mot., 7-8) are inapposite because they concern whether the weight of the evidence established public availability, a question that goes to the sufficiency of evidence rather than admissibility. *Open Text S.A. v. Box, Inc.*, Case No. 13-cv-04910-JD, 2015 WL 4940798 (N.D. Cal. Aug. 19, 2015); *Hilgraeve, Inc. v. Symantex Corp.*, 271 F. Supp. 2d 964 (E.D. Mich. 2003).

Grunenthal, PGR2019-00026, Paper 24 at 46 (quoting Fed. R. Evid. 807(a)(2)) (“We find that [the reference’s] statement, indicating that [it] was published in October 2011, is ‘more probative on the point for which it is offered than any other evidence that the proponent can obtain through reasonable efforts.’”). In addition, to the extent they are hearsay, Exhibit 1074, Exhibit 1078, Exhibit 1079, Exhibit 1080, and Exhibit 1086 are subject to the ancient documents exception. That is, even if these documents were relied on for the truth of a matter asserted therein (they are not), they are not hearsay because they were prepared before January 1, 1998 and there are no genuine disputes about their authenticity. Fed. R. Evid. 803(16) (“A statement in a document that was prepared before January 1, 1998, and whose authenticity is established” is “not excluded by the rule against hearsay”). Lastly, to the extent that the Additional Challenged Exhibits are hearsay (they are not), they may still be relied on by Dr. Holman in forming his opinions. *See* Fed. R. Evid. 703; *Casper*, IPR2024-00474, Paper 60 at 80.

IV. CONCLUSION

Petitioner respectfully requests the Board deny Maxeon’s Motion.

Respectfully submitted,

By: /David L. Cavanaugh/
David L. Cavanaugh
Registration No. 36,476

Counsel for Petitioner

CERTIFICATE OF SERVICE

I hereby certify that, on November 13, 2025, I caused a true and correct copy
of the following materials:

- Petitioner's Opposition to Patent Owner's Motion to Exclude
- Petitioner's Table of Exhibits
- Exhibits 1089-1090

to be served on Patent Owner via electronic mail to:

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Petitioner's Table of Exhibits

No.	Description
1001	U.S. Patent No. 8,222,516 B2 ("USP516")
1002	File History for U.S. Patent No. 8,222,516 B2 (App. No. 12/070,742) ("FH516")
1003	Declaration of Dr. Zachary Holman Regarding U.S. Patent No. 8,222,516 B2
1004	EP1732142A1 to Froitzheim ("Froitzheim")
1005	Gan and Swanson, <i>Polysilicon Emitters for Silicon Concentrator Solar Cells</i> , <i>IEEE Conference on Photovoltaic Specialists</i> , Vol. 1, Pages 245-240 (1990) ("Gan")
1006	WO 2009/094575 A2 ("Borden-575")
1007	U.S. Patent No. 6,998,288 to Smith ("Smith")
1008	CN 1949545A to Li (Translation) ("Li")
1009	Translation Declaration for Li
1010	Zachary C. Holman, <i>Electron Transport in Amorphous Silicon</i> (May 2005) (Thesis Presented to The Division of Mathematics and Natural Sciences, Reed College) ("Holman-Thesis")
1011	U.S. Provisional Appl. No. 61/023,354 ("Borden-Provisional")
1012	U.S. Patent App. Pub. No. 2006/0157103 ("Sheats")
1013	Declaration of June Munford
1014	Complaint for Patent Infringement, <i>Maxeon Solar Pte. Ltd. v. Hanwha Solutions Corp., et al.</i> , Civil Action No. 2:24-cv-262 (E.D. Tex. Apr. 19, 2024), ECF No. 1 ("Complaint")
1015	U.S. Patent No. 7,468,485 to Swanson ("Swanson")
1016	R. J. Komp, <i>Practical Photovoltaics Electricity From Solar Cells</i> , 3rd Ed. (2002) ("Komp")
1017	BP Solar Global Marketing, BP-MSX-120, 120-Watt Multicrystalline Photovoltaic Module ("BP-MSX-120")
1018	J. Nelson, <i>The Physics of Solar Cells</i> , Imperial College Press (2003) ("Nelson")
1019	T. Krygowski, A. Rohatgi, D. Ruby, <i>Simultaneous P and B Diffusion, In-Situ Surface Passivation, Impurity Filtering and Gettering for High-Frequency Silicon Solar Cells</i> , SAND-97-2620C; CONF-970953- ("Krygowski")

No.	Description
1020	A. Luque, S. Hegedus, <i>Handbook of Photovoltaic Science and Engineering</i> , Wiley (2003) ("Luque")
1021	J. Gordon, <i>Solar Energy the State of the Art</i> , ISES (2001) ("Gordon")
1022	U.S. Patent No. 6,262,359 to Meier ("Meier")
1023	U.S. Patent No. 4,525,593 to Yablonovitch ("Yablonovitch")
1024	WO 2009/094578 A2 ("Borden-578")
1025	U.S. Patent No. 4,665,277 to Sah ("Sah")
1026	D. Chapin et al., <i>A New Silicon P-N Junction Photocell for Converting Solar Radiation into Electrical Power</i> , J. Appl. Phys. 25, 676 (1954) ("Chapin")
1027	W. Shockley, H. J. Queisser, <i>Detailed Balance Limit of Efficiency of pn Junction Solar Cells</i> , J. Appl. Phys. 32, 510 (1961) ("Shockley")
1028	A. Metz, R. Meyer, B. Kuhlmann, M. Grauvogl, R. Hezel, <i>18.5% Efficient First-Generation MIS Inversion-Layer Silicon Solar Cells</i> , 26th PVSC (1997) ("Metz")
1029	D. De Ceuster, P. Cousins, D. Rose, D. Vicente, P. Tipones, W. Mulligan, <i>Low Cost, High Volume Production of >22% efficiency silicon solar cells</i> , 22nd European Photovoltaic Solar Energy Conference, 3-7 September 2007, Milan, Italy, pp. 816-819 ("De-Ceuster")
1030	J. Benick, J. Rentsch, Ch. Schetter, C. Voyer, D. Biro, R. Preu, <i>PECVD PSG as a Dopant Source for Industrial Solar Cells</i> , Presented at the 21st European Photovoltaic Solar Energy Conference, September 4-8, 2006, Dresden (2CV.4.26) ("Benick")
1031	JP07-106611 to Okayasu (Translation) ("Okayasu")
1032	Translation Declaration for Okayasu
1033	Robert F. Pierret, <i>Semiconductor Device Fundamentals</i> , Addison Wesley Longman (Part I) (1996) ("Pierret")
1034	A. I. A. Rahim, C. D. Marsh, P. Ashburn, G. R. Booker, <i>Impact of Ex-Situ and In-Situ Cleans on the Performance of Bipolar Transistors With Low Thermal Budget In-Situ Phosphorus-Doped Polysilicon Emitter Contacts</i> , IEEE

No.	Description
	TRANSACTIONS ON ELECTRON DEVICES, VOL. 48, NO. 11 (November 2001) ("Rahim")
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U.S. Patent No. 8,222,516
Petitioner's Opposition to Motion to Exclude
Case No. IPR2024-01203

No.	Description
1066	U.S. Patent No. 4,748,130 to Wenham ("Wenham")
1067	Email chain between Counsel and Trial Board, dated December 11-12, 2024
1068	Plaintiff Maxeon Solar Pte. Ltd.'s Disclosure of Asserted Claims and Infringement Contentions, <i>Maxeon Solar Pte. Ltd. v. Hanwha Solutions Corp., et al.</i> , Civil Action No. 2:24-cv- 262 (E.D. Tex. Nov. 21, 2024)
1069	Docket Control Order, <i>Maxeon Solar Pte. Ltd. v. Hanwha Solutions Corp., et al.</i> , Civil Action No. 2:24-cv- 262 (E.D. Tex. Nov. 25, 2024), ECF No. 33
1070	Declaration of Mark D. Selwyn in Support of Petitioner's Notice of Intent to Designate Mark D. Selwyn, a Provisionally Recognized PTAB Attorney, as Back-Up Counsel Pursuant to 37 C.F.R. § 42.10(c)
1071	Deposition Transcript of Douglas S. Ruby, Ph.D., June 24, 2025, in <i>Canadian Solar, Inc. v. Maxeon Solar Pte, Ltd.</i> , IPR2024-01039, IPR20024-01040 ("Ruby-CSI-Dep.")
1072	Sandia Report, Fundamental Understanding and Development of Lost-Cost, High-Efficiency Silicon Solar Cells, Annual Progress Report: Sept. 1998-Aug. 1999 (May 2000) ("Sandia-2000")
1073	U.S. Patent Number 5,792,280 to Ruby ("Ruby-280")
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1086	D. S. Ruby & J. D. McBrayer, The Effects Of Different Diffusion Sources On Silicon Solar Cell Recombination Properties, Sandia Nat'l. Labs. (1990) ("Ruby-1990")
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1089	Declaration of Gilbert T. Smolenski dated September 5, 2025
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