

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES – GENERAL

Case No. CV 16-3714 GW (AGRx) Date: December 28, 2018

Title *The California Institute of Technology v. Broadcom Limited, et al.*

Present: The Honorable: GEORGE H. WU, UNITED STATES DISTRICT JUDGE

Javier Gonzalez
Deputy Clerk

None Present
Court Reporter / Recorder

Attorneys Present for Plaintiffs:

Attorneys Present for Defendants:

None Present

None Present

Proceedings: IN CHAMBERS – FINAL RULING ON:

PLAINTIFF’S MOTION FOR PARTIAL SUMMARY JUDGMENT [740]

The California Institute of Technology v. Broadcom Limited et al.; Case No. 2:16-cv-03714-GW-(AGRx)
Final Ruling on Plaintiff’s Motion for Partial Summary Judgment of Validity under 35 U.S.C. §
103 Based on IPR Estoppel under 35 U.S.C. § 315(e)(2)

I. Introduction

Plaintiff The California Institute of Technology currently alleges patent infringement against Defendants Broadcom Limited, Broadcom Corporation, Avago Technologies Limited, and Apple Inc.¹ See First Amended Complaint (“FAC”), Docket No. 36; see also Docket No. 1. Plaintiff asserts that Defendants infringe fifteen claims from three of its patents: (1) U.S. Patent No. 7,116,710 (“the ’710 Patent”); (2) U.S. Patent No. 7,421,032 (“the ’032 Patent”); and (3) U.S. Patent No. 7,916,781 (“the ’781 Patent”) (collectively, the “Asserted Patents”).² See Docket No.

¹ Cypress Semiconductor Corporation was also previously named as a defendant in this case, but the parties filed a Joint Stipulation for Dismissal of all claims between them on September 7, 2018. Docket No. 665.

² The fifteen remaining claims in this case are: Claims 20, 22, and 23 of the ’710 Patent; Claims 3, 11, 13, 17, and 18 of the ’032 Patent; and Claims 5, 6, 9, 10, 13, 19, and 22 of the ’781 Patent. Docket No. 409. Of those claims, eleven were selected as representative claims for purposes of adjudication in this lawsuit: Claims 20, 22, and 23 of the ’710 Patent; Claims 3, 11, 17, and 18 of the ’032 Patent; and Claims 6, 9, 13, and 22 of the ’781 Patent. See *id.*; see also Docket No. 487, 488. On October 1, 2018, Plaintiff filed a Notice of Withdrawal of Claim 6 of the ’781 Patent. Docket No. 705. However, Plaintiff’s notice is vague as to whether it solely seeks to withdraw Claim 6 of the ’781

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409 (Plaintiff’s Amended Notice of Withdrawal of Certain Asserted Claims of Asserted Patents).

Pending before the Court is Plaintiff’s Motion for Summary Judgment as to Validity under 35 U.S.C. § 103 Based on IPR Estoppel under 35 U.S.C. § 315(e)(2). Docket No. 740-1. The Motion is fully briefed. *See* Docket No. 767 (public); Docket No. 772 (sealed) (Defendants’ Opposition to Motion for Partial Summary Judgment); Docket No. 798 (Plaintiff’s Reply in Support of Motion for Partial Summary Judgment). A hearing was held on the Motion on December 6, 2018 and the matter was taken under submission. *See* Docket Nos. 824, 828.

For the reasons stated in this Order, the Court **GRANTS** Plaintiff’s Motion for Summary Judgment (Docket No. 740) except as to Defendants’ invalidity ground against Claims 13 and 22 of the ’781 Patent based on Divsalar, Frey/Frey Slides, and Ping.

II. Legal Standard

Under Federal Rule of Civil Procedure (“Rule”) 56, a party may move for summary judgment, identifying each claim or defense – or the part of each claim or defense – on which summary judgment is sought, and the court shall grant it when the pleadings, the discovery and disclosure materials on file, and any affidavits show that “there is no genuine issue as to any material fact and that the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a); *see also Miranda v. City of Cornelius*, 429 F.3d 858, 860 n.1 (9th Cir. 2005). As to materiality, “[o]nly disputes over facts that might affect the outcome of the suit under the governing law will properly preclude the entry of summary judgment.” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). A dispute as to a material fact is “genuine” if there is sufficient evidence for a reasonable jury to return a verdict for the nonmoving party. *Id.*

To satisfy its burden at summary judgment, a moving party with the burden of persuasion must establish “beyond controversy every essential element of its [claim or defense].” *S. Cal. Gas Co. v. City of Santa Ana*, 336 F.3d 885, 888 (9th Cir. 2003); *O’Connell & Stevenson, Rutter Group*

Patent as one of the eleven claims selected for purposes of adjudication or whether it seeks to withdraw Claim 6 from the lawsuit entirely.

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Prac. Guide: Fed. Civ. Proc. Before Trial (“*Federal Practice Guide*”) § 14:126 (2016). By contrast, a moving party without the burden of persuasion “must either produce evidence negating an essential element of the nonmoving party’s claim or defense or show that the nonmoving party does not have enough evidence of an essential element to carry its ultimate burden of persuasion at trial.” *Nissan Fire & Marine Ins. Co., Ltd. v. Fritz Cos., Inc.*, 210 F.3d 1099, 1102 (9th Cir. 2000); *see also Devereaux v. Abbey*, 263 F.3d 1070, 1076 (9th Cir. 2001) (en banc) (“When the nonmoving party has the burden of proof at trial, the moving party need only point out ‘that there is an absence of evidence to support the nonmoving party’s case.’”) (quoting *Celotex Corp. v. Catrett*, 477 U.S. 317, 325 (1986), and citing *Fairbank v. Wunderman Cato Johnson*, 212 F.3d 528, 532 (9th Cir. 2000) (holding that the *Celotex* “showing” can be made by “pointing out through argument . . . the absence of evidence to support plaintiff’s claim”)).

If the party moving for summary judgment meets its initial burden of identifying for the court the portions of the materials on file that it believes demonstrate the absence of any genuine issue of material fact, the nonmoving party may not rely on the mere allegations in the pleadings in order to preclude summary judgment[, but instead] must set forth, by affidavit or as otherwise provided in Rule 56, specific facts showing that there is a genuine issue for trial.

T.W. Elec. Serv., Inc. v. Pac. Elec. Contractors Ass’n, 809 F.2d 626, 630 (9th Cir. 1987) (internal citations and quotation marks omitted) (citing, among other cases, *Celotex*, 477 U.S. at 323). “A non-movant’s bald assertions or a mere scintilla of evidence in his favor are both insufficient to withstand summary judgment.” *See FTC v. Stefanichik*, 559 F.3d 924, 929 (9th Cir. 2009). In addition, the evidence presented by the parties must be admissible. *See Fed. R. Civ. P. 56(e)*. Conclusory, speculative testimony in affidavits and moving papers is insufficient to raise genuine issues of fact and defeat summary judgment. *See Thornhill Publ’g Co., Inc. v. GTE Corp.*, 594 F.2d 730, 738 (9th Cir. 1979). Relatedly, “[a]ny objections to declarations or other evidence must be made at or (preferably) before the hearing, and should be ruled upon by the court before ruling on the motion itself.” *Federal Practice Guide* § 14:333 (citing *Hollingsworth Solderless Terminal*

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Co. v. Turley, 622 F.2d 1324, 1335 n.9 (9th Cir. 1980); *Sigler v. American Honda Motor Co.*, 532 F3d 469, 480 (6th Cir. 2008)). In judging evidence at the summary judgment stage, however, courts do not make credibility determinations or weigh conflicting evidence at the summary judgment stage, and must view all evidence and draw all inferences in the light most favorable to the non-moving party. See *T.W. Elec.*, 809 F.2d at 630-31 (citing *Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574 (1986)); *Anderson*, 477 U.S. at 255 (“The evidence of the non-movant is to be believed and all justifiable inferences are to be drawn in [the non-movant’s] favor.”).

“If the court does not grant all the relief requested by the motion, it may enter an order stating any material fact – including an item of damages or other relief – that is not genuinely in dispute and treating the fact as established in the case.” Fed. R. Civ. P. 56(g); see also Federal Practice Guide § 14:352 (“A partial summary judgment may be granted on motion of either party for adjudication of particular claims or defenses.”) (citing *id.* § 14:33).

III. Factual Background

While this litigation has been proceeding, the Patent Trial and Appeal Board (“PTAB”), a branch of the U.S. Patent Office, has considered the validity of the Asserted Patents as part of certain *Inter Partes* Review (“IPR”) Proceedings. Defendants³ filed ten IPR petitions across the patents asserted in this case.⁴ The PTAB declined to institute IPR proceedings as to some of the petitioned patent claims, instituted IPR proceedings as to the other petitioned patent claims, and has issued Final Written Decisions as to four of the claims that are still being adjudicated in this case.⁵

³ Plaintiff explains: “Apple Inc. (‘Apple’) is identified as the petitioner in all of the IPRs at issue, and Broadcom Corp. (‘Broadcom’) is identified as a real party-in-interest. Broadcom Corp. and Avago Technologies Ltd. are each subsidiaries of Broadcom Ltd., which is now known as Broadcom Inc.” Docket No. 740-1 at 1.

⁴ The ten IPR petitions included petitions against a patent that has since been withdrawn from this case.

⁵ Instituted IPR remains pending as to two of the claims for adjudication in this case, Claims 20 and 22 of the ’710

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In particular, the PTAB has issued Final Written Decisions finding that Defendants failed to demonstrate that Claims 13 and 22 of the '781 Patent and Claims 11 and 18 of the '032 Patent are invalid. Defendants had specifically raised (and the PTAB considered) three prior art “grounds” during IPR proceedings:

- Ping & MacKay ('781 Patent, Claims 13 and 22);
- Ping, MacKay & Divsalar ('032 Patent, Claim 11); and
- Ping, MacKay, Divsalar & Luby97 ('032 Patent, Claim 18).

In litigation before this Court, the following table summarizes the invalidity grounds Defendants now rely on to assert invalidity of Claims 13 and 22 of the '781 Patent and Claims 11 and 18 of the '032 Patent:

Patent	Claim	References Asserted in IPR	References Asserted in District Court
'032 Patent	11, 18	Claim 11: Ping, MacKay & Divsalar Claim 18: Ping, MacKay Divsalar & Luby97	Ping, Luby98, Divsalar* & Luby97
			Ping, Richardson99*, Divsalar* & Luby97
			Ping, MacKay & Pfister/Pfister Slides*
			Divsalar*, MacKay & Luby97
			Ping, MacKay, Divsalar* & Luby97
			Ping, Luby98 & Divsalar*
			Ping, Luby98 & Pfister/Pfister Slides*
'781 Patent	13, 22	Ping & MacKay	Divsalar*, Ping & Richardson99*
			Divsalar*, Luby97, Luby98
			Divsalar*, Ping & Frey/Frey Slides*
			Ping & Luby98

Patent. Plaintiff notes that it will also seek summary judgment of no invalidity as to those claims on the basis of IPR estoppel after the PTAB issues its Final Written Decision in the IPR proceedings on those claims.

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			Pfister/Pfister Slides*, Luby97 & Luby98
			Divsalar*, Ping & Luby98
			Divsalar*, Luby97 & Luby98

For purposes of their opposition to Plaintiff’s summary judgment motion, Defendants assert that the “references” marked with asterisks are being brought under the “known or used” prong of pre-AIA 35 U.S.C. § 102(a).

Plaintiff now moves for partial summary judgment of no invalidity as to Claims 13 and 22 of the ’781 Patent and Claims 11 and 18 of the ’032 Patent, arguing that IPR estoppel precludes Defendants from raising each invalidity ground that was identified in Defendants’ invalidity contentions as to each of those claims. Docket No. 740-1.

IV. Analysis

A. Scope of IPR Estoppel under 35 U.S.C. § 315(e)(2)

Section 315(e)(2) of the Patent Act states:

The petitioner in an inter partes review of a claim in a patent under this chapter that results in a final written decision under section 318(a), or the real party in interest or privy of the petitioner, may not assert . . . that the claim is invalid on any ground that the petitioner raised or reasonably could have raised during that inter partes review.

35 U.S.C. § 315(e)(2). Courts have clarified that an invalidity “ground” before the PTAB is “the basis or bases on which a petitioner challenges a claim.” *iLife Techs, Inc. v. Nintendo of Am., Inc.*, No. 13-cv-4987-M, 2017 U.S. Dist. LEXIS 87769, at *9 (N.D. Tex. May 30, 2017).

The Federal Circuit had reason to consider the meaning of the statutory IPR estoppel provision in a 2016 decision. *See Shaw Indus. Grp., Inc. v. Automated Creel Sys., Inc.*, 817 F.3d 1293, 1300 (Fed. Cir. 2016), *cert. denied*, 137 S. Ct. 374 (2016). *Shaw* involved an appeal from the PTAB’s decision to only partially institute an IPR. The PTAB had partially denied institution of IPR on the basis that certain prior art grounds in the IPR petition were “redundant.” *Id.* at 1297.

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The Federal Circuit first concluded that the PTAB’s decision to deny IPR institution on certain grounds was unappealable. *Id.* at 1299 (“We have no authority . . . to review the Board’s decision to institute IPR on some but not all grounds.”). The Federal Circuit then commented that, as to the “redundant” invalidity grounds where the PTAB denied IPR institution (*i.e.*, the unappealable portion of the decision with no resulting Final Written Decision), IPR estoppel would not attach. Relying on an interpretation of the plain words of the statutory IPR estoppel provision, the Federal Circuit reasoned that the non-instituted ground was not a ground raised or that reasonably could have been raised “**during** that inter partes review” because “[t]he IPR does not begin until it is instituted.” *Id.* at 1300; *see also HP Inc. v. MPHJ Tech. Inv., LLC*, 817 F.3d 1339, 1347 (Fed. Cir. 2016) (interpreting the analogous estoppel provision that applies to Patent Office proceedings, Section 315(e)(1), and concluding that “noninstituted [redundant] grounds do not become a part of the IPR”).

District courts since *Shaw* have grappled with the implications of this holding. In particular, courts have considered whether the statutory IPR estoppel provision reaches to invalidity grounds that a petitioner was aware of at the time it filed its IPR petition, but chose not to bring in the IPR proceeding. Some district courts relying on *Shaw* have concluded that, under the logic provided by *Shaw*, those non-petitioned grounds could not reasonably have been raised **during** IPR because **during** IPR, the PTAB has already selected the specific invalidity grounds for consideration through its grant of the IPR petition. Under this logic, a petitioner would have no reasonable opportunity to raise new invalidity grounds in the midst of the actual “IPR stage” of IPR proceedings. Other district courts have questioned this approach and declined to follow it. Those courts observe that only allowing estoppel to attach to the invalidity grounds actually considered and ultimately addressed in the PTAB’s Final Written Decision would render the phrase “reasonably could have raised” in Section 315(e)(2) largely superfluous. *Milwaukee Elec. Tool Corp. v. Snap-On Inc.*, 271 F. Supp. 3d 990, 1028 (E.D. Wis. 2017) *appeal pending*, No. 18-1516 (Fed. Cir. Feb. 5, 2018) (comparing two approaches). The Eastern District of Wisconsin’s

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decision in *Milwaukee Electric* provided a thoughtful summary and analysis of the competing views at the time it was decided:

Plaintiffs assert that the exception to IPR estoppel explained in *Shaw* – non-institution of a ground for IPR – has two limitations. First, it only applies to non-instituted grounds when such ground was rejected for purely procedural reasons, such as redundancy, and not when the ground was refused as insufficient on its merits to warrant IPR. (Docket # 188 at 11). Second, in Plaintiffs’ view, estoppel operates to bar any non-petitioned ground that the petitioner had reasonably available to it, and therefore could have included in its petition, but chose not to. *Id.*

Several district courts have accepted Plaintiffs’ position, finding that while these exceptions to the exception are not totally congruent with the Federal Circuit’s quite literal reading of the statute in *Shaw*, they are important in order to further the efficiency-promoting purposes of IPR and deter selective presentation of grounds to the PTAB. *See Biscotti Inc. v. Microsoft Corp.*, Case No. 2:13-CV-01015-JRG-RSP, 2017 WL 2526231, at *7 (E.D. Tex. May 11, 2017); *Clearlamp, LLC v. LKQ Corp.*, No. 12-cv-2533, 2016 WL 4734389, at *8 (N.D. Ill. Mar. 18, 2016). Other courts have hewed to *Shaw* and *HP*’s literal approach, finding that only grounds that were or could reasonably have been raised during IPR proceedings – that is, after the PTAB has instituted IPR as to certain grounds – implicate IPR estoppel. *See, e.g., Verinata Health, Inc. v. Ariosa Diagnostics, Inc.*, No. 12-cv-5501, 2017 WL 235048, at *3 (N.D. Cal. Jan. 19, 2017) (collecting cases).

The Court finds that, in the absence of greater clarity provided by the Federal Circuit on these issues, the better view is that recently espoused by Judge Amy St. Eve in *Oil-Dri Corp. of America v. Nestle Purina Petcare Co.*, No. 15-cv-1067, 2017 WL 3278915 (N.D. Ill. Aug. 2, 2017). First, she found that a plain reading of *Shaw* compels the conclusion that a non-instituted ground is not subject to estoppel, whatever the reason for its rejection. *Id.* at *4; *Douglas Dynamics, LLC v. Meyer Prods. LLC*, 14-cv-886-jdp, 2017 WL 1382556, at *5 (W.D. Wis. Apr. 18, 2017) (*Shaw* “makes the Federal Circuit’s view of whether § 315(e) estoppel applies to non-instituted grounds crystal clear”). As she explained, the Federal Circuit has had opportunities to revisit *Shaw*’s reasoning and has declined to do so. *Oil-Dri*, 2017 WL 3278915, at *4; *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1053 (Fed. Cir. 2017); *HP Inc.*, 817 F.3d at 1347. Further, while it is possible to draw

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distinctions between declining to institute IPR for procedural reasons or for merits-related failings, the fact remains that denial of an IPR petition is simply not an adjudication of an invalidity contention. *Oil-Dri*, 2017 WL 3278915, at *4. Holding otherwise would deny the petitioner a full and fair opportunity to litigate the petitioned but non-instituted ground. *See id.*; *Verinata*, 2017 WL 235048, at *3 (“[L]imiting IPR estoppel to grounds actually instituted ensures that estoppel applies only to those arguments, or potential arguments, that received (or reasonably could have received) proper judicial attention.”). Thus, a petitioned ground for which IPR was not instituted, for whatever reason, does not give rise to IPR estoppel.

However, the Court is persuaded by Plaintiffs’ other proposed limitation on the *Shaw* IPR estoppel exception relating to non-petitioned grounds. Judge St. Eve also persuasively reasoned in *Oil-Dri* that “[i]f a party does not include an invalidity ground in its petition that it reasonably could have included, it necessarily has not raised a ground that it ‘reasonably could have raised during . . . IPR.’” *Oil-Dri*, 2017 WL 3278915, at *8 (quoting 35 U.S.C. § 315(e)(2)). The Federal Circuit has not expressly considered this particular question, and so *Shaw* and the cases that follow it, which touch on non-instituted grounds only, do not foreclose such an approach. *Id.* at *7. Moreover, this approach is consistent with the purposes of the AIA, because it incentivizes petitioners to bring all of their invalidity claims before the expert judges of the PTAB in the most efficient manner possible. *Id.*

Indeed, though *Shaw*’s plain language prevents IPR estoppel being applied to non-instituted grounds, the Court can preserve some measure of the policy goals animating the creation of IPR by holding that a petitioner is estopped from asserting invalidity contentions based on prior art that it could reasonably have included in its IPR petition but did not. *See Douglas Dynamics*, 2017 WL 1382556, at *4; *Biscotti*, 2017 WL 2526231, at *7. As Judge St. Eve observed, “while it makes sense that noninstituted grounds do not give rise to estoppel because a petitioner cannot – to no fault of its own – raise those grounds after the institution decision, when a petitioner simply does not raise invalidity grounds it reasonably could have raised in an IPR petition, the situation is different.” *Oil-Dri*, 2017 WL 3278915, at *8. The PTAB itself takes this view, too. *Great W. Cas. Co. v. Intellectual Ventures II LLC*, IPR No. 2016–01534, Paper No. 13, at 11-14 (PTAB Feb. 15, 2017) (“[A] petitioner makes an affirmative choice to avail itself of *inter partes* review only on certain grounds. That choice, however, comes with

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consequences, most prominently, that grounds petitioner elects not to raise in its petition for *inter partes* review may be subject to the consequences of Section 315(e)(1).”). In order for IPR to fulfill its mission of streamlining patent litigation in the district courts and promoting efficient dispute resolution, a petitioner cannot be left with the option to institute a few grounds for IPR while holding some others in reserve for a second bite at the invalidity apple once in the district court. *See Cobalt Boats, LLC v. Sea Ray Boats, Inc.*, No. 15cv21, 2017 WL 2605977, at *2-3 (E.D. Va. June 5, 2017) (“[T]he broad reading of *Shaw* renders the IPR estoppel provisions essentially meaningless because parties may pursue two rounds of invalidity arguments as long as they carefully craft their IPR petition.”); *Douglas*, 2017 WL 1382556, at *4 (“A patent infringement defendant does not have to take the IPR option; it can get a full hearing of its validity challenge in district court. If the defendant pursues the IPR option, it cannot expect to hold a second-string invalidity case in reserve in case the IPR does not go defendant's way.”). “Estopping a party in such a situation is both fair – as the party could only blame itself – as well as common.” *Oil-Dri*, 2017 WL 3278915, at *9. Therefore, the Court finds that a petitioner is subject to IPR estoppel when it fails to raise those grounds that it “reasonably could have raised” in its IPR petition, which includes prior art that a “skilled searcher conducting a diligent search reasonably could have been expected to discover.” *Id.* (quoting *Clearlamp*, 2016 WL 4734389, at *7-8); *Douglas*, 2017 WL 1382556, at *5.

Id. at 1028-30.

At the hearing, Defendants argued that the district court’s interpretation in *Milwaukee Electric* leads to an inconsistent treatment of the “during IPR” language in § 315(e)(2) depending on the circumstances and is thus contrary to the Federal Circuit’s determination in *Shaw*. As Defendants see it, if a prior art reference is included in an IPR petition and IPR is not instituted as to that prior art reference, *Milwaukee Electric* ascribes to *Shaw*’s view that the reference could not have been reasonably raised *during* IPR. If a prior art reference is not included in an IPR petition, *Milwaukee Electric* would find that IPR estoppel applies so long as the prior art reference could have been found by a skilled searcher conducting a diligent search. In other words, at first glance, it would appear that the “during IPR” language of § 315(e)(2) has taken on a different meaning in the second scenario and specifically a different meaning from the one set out in *Shaw*.

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Shaw, however, involved very particular circumstances. *Shaw*'s estoppel determination was intertwined with: 1) a determination that the Federal Circuit could not hear appeals from PTAB decisions denying institution of IPR and 2) circumstances where the PTAB was permitted to institute (or deny institution) of IPR on less than the full grounds and claims requested by a petitioner. An alternative discussion in *Shaw* could have created a circumstance suggesting estoppel could attach based on an unreviewable non-final determination from the PTAB.⁶ The same due process issues are not at play when non-petitioned prior art grounds are being considered, and *Shaw* does not directly address this second scenario in its determination.

The “during IPR” language also should not be read in a vacuum. The full phrase of § 315(e)(2) is whether the ground is one “that the petitioner raised or reasonably could have raised during that inter partes review.” There is no reasonable basis by which a petitioner could raise a ground that has been explicitly rejected by the PTAB in making an IPR institution determination. But in the context of non-petitioned grounds, the issue goes back to the choices made by the petitioner itself. In other words, prior art references that a petitioner reasonably could have raised, but chose not to raise, in an IPR petition are also prior art references that reasonably could have been raised during actual IPR had the PTAB been given the opportunity (based on the petitioner’s raising them) to consider those references.

The Court acknowledges that at the time *Milwaukee Electric* and *Oil-Dri* were decided, this logic may have held less water. But after those opinions had already issued, the Supreme

⁶ In *Shaw*, the defendant had petitioned for a writ of mandamus instructing the PTAB to institute IPR on the supposedly redundant invalidity ground on which IPR had not been instituted. *Shaw*, 817 F.3d at 1299. The defendant argued that relief was necessary for various reasons, including that it could be otherwise estopped from raising the invalidity ground in district court and thus had no other adequate means to attain the desired relief. *Id.* The Federal Circuit addressed the defendant’s concern with its analysis of § 315(e)(2) and its conclusion that statutory estoppel would not apply to the invalidity ground rejected by the PTAB. *Id.* In other words, the Federal Circuit found that because defendant would still be able to bring the prior art ground in district court, mandamus was not warranted. Thus, *Shaw* is not a decision directly determining the scope of estoppel, but instead is one where estoppel is considered in the context of a different dispute. Although the Court does not consider *Shaw*'s interpretation of § 315(e)(2) to be *dicta*, it does find this distinction notable and significant.

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Court in *SAS* found that the language of the Patent Act does not permit the PTAB to only institute IPR on some, but not all, of the petitioned claims. *See SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 200 L. Ed. 2d 695 (2018). The Federal Circuit has since interpreted *SAS* as also requiring the PTAB to take an all-or-nothing approach to the actual invalidity grounds raised in an IPR petition. *See Adidas AG v. Nike, Inc.*, 894 F.3d 1256, 1257 (Fed. Cir. 2018). In other words, the factual circumstances encountered by *Shaw* (partial denial of institution of IPR as to a particular ground, with that denial unappealable) are unlikely to arise again. The result is that the choices of the petitioner – and the petitioner alone – in its initial decision regarding what grounds to bring before the PTAB dictate what grounds are raised (or reasonably could have been raised) “during IPR” and thus could result in estoppel if IPR results in a final written decision. *See* 35 U.S.C. § 315(e)(2).

Indeed, in the only published district court decision since *SAS*, one district court has stated,

[p]rior to *SAS*, a minority of district courts had held that only grounds actually raised in the petition could count as grounds that “reasonably could have been raised”; under that view, a petitioner could hold back certain grounds from its petition and be free to raise them later before a district court. *E.g., Koninklijke Philips N.V. v. Wangs Alliance Corp.*, 2018 WL 283893, at *3-4 (D. Mass. Jan. 2, 2018) (citing cases that held otherwise); *Finjan, Inc. v. Blue Coat Sys., LLC*, 283 F.Supp.3d 839, 855-57 (N.D. Cal. 2017). *But see Oil-Dri Corp. of Am. v. Nestlé Purina Petcare Co.*, 2017 WL 3278915, at *6-8 (N.D. Ill. Aug. 2, 2017) (“[W]hile it makes sense that noninstituted grounds do not give rise to estoppel because a petitioner cannot – to no fault of its own – raise those grounds after the institution decision, when a petitioner simply does not raise invalidity grounds it reasonably could have raised in an IPR petition, the situation is different.”); *Parallel Networks Licensing, LLC v. Int’l Bus. Machs. Corp.*, 2017 WL 1045912, *11-12 (D. Del. Feb. 22, 2017). After *SAS*, that cannot be correct. Because the PTAB must now institute review (if at all) on all claims and grounds, there will be no such thing as a ground raised in the petition as to which review was not instituted. Accordingly, for the words “reasonably could have raised” to have any meaning at all, they must refer to grounds that were not actually in the IPR petition, but reasonably could have been included.

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SiOnyx, LLC v. Hamamatsu Photonics K.K., 330 F. Supp. 3d 574, 602 (D. Mass. 2018). This reasoning is persuasive and supports the conclusion that IPR estoppel should extend to non-petitioned invalidity grounds.⁷

SiOnyx also addressed the issue of the scope of what constitutes a non-petitioned invalidity ground that reasonably could have been raised during IPR:

In congressional debates, one of the key architects of the America Invents Act explained that “reasonably could have raised” is meant to include any patent or printed publication that a petitioner actually knew about or that “a skilled searcher conducting a diligent search reasonably could have been expected to discover.” 157 Cong. Rec. S1375 (daily ed. Mar. 8, 2011) (statement of Sen. Kyl). Several district courts have adopted this as the standard. *E.g., Parallel*

⁷ At the hearing, Defendants argued that the “reasonably could have raised” language is not rendered entirely superfluous by a narrower reading § 315(e)(2). Specifically, Defendants observed that if the PTAB instituted IPR on a ground involving prior art references A, B, and C, some courts have found it appropriate for IPR estoppel to attach to grounds involving sub-combinations of those three prior art references, such as, for instance, a ground involving the combination of only prior art references A and B. *See Verinata Health, Inc. v. Ariosa Diagnostics, Inc.*, No. 12-CV-05501-SI, 2017 WL 235048, at *4 (N.D. Cal. Jan. 19, 2017) (“The Court finds that defendants raised, or could have raised, these grounds in the IPR proceedings, as the combination of Dhallan and Binladen is simply a subset of the instituted grounds.”). In the Court’s view, in most instances, this would be a distinction without a difference. Presumably, a petitioner would believe the full combination of prior art references that it brought as a ground before the PTAB is necessary to make its invalidity argument before the PTAB. Perhaps in limited circumstances a petitioner would have some incentive to throw in more prior art references than it actually needs to support an invalidity argument before the PTAB. For instance, a petitioner might rely on prior art combination A, B, and C before the PTAB even if it personally thinks A and B are sufficient but has concerns that the smaller A/B combination is open to greater challenge. The more logical choice, however, would seem to be to streamline/simplify a submitted invalidity ground, particularly given the petitioner’s burden to show it would have been obvious to combine the prior art references (a task that, at least conceptually, would likely become increasingly difficult as the number of prior art references increases). The Court also observes that a narrower interpretation of § 315(e)(2) could create an additional incentive for petitioners to limit the number of prior art references used in invalidity grounds in their IPR petitions. For instance, under the narrower view of IPR estoppel urged by Defendants, a petitioner could take a chance and raise prior art references A and B in a ground before the PTAB, but then bring prior art references A, B, and C in an obviousness ground before district court without fear of estoppel. This would allow the petitioner to first try its luck with the smaller prior art reference combination before the PTAB and then, with the benefit of the PTAB’s analysis, take a second bite at the apple by simply adding an additional reference to the mix (even if, for instance, the majority of the invalidity analysis remains the same). This thought exercise also colors the Court’s thinking regarding the appropriate scope of IPR estoppel.

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Networks Licensing, 2017 WL 1045912, *11-12; *Clearlamp, LLC v. LKQ Corp.*, 2016 WL 4734389, at *7-8 (N.D. Ill. Mar. 18, 2016).

SiOnyx, 330 F. Supp. 3d at 602. The Court finds it appropriate to adopt the same standard here.⁸

Finally, *SiOnyx* departed from *Milwaukee Electric's* conclusion regarding how estoppel should be applied to petitioned but noninstituted invalidity grounds where there has been partial IPR institution and a final written decision:

[h]appily, the issue is easily resolved in this case. At the time the Supreme Court handed down *SAS*, [the IPR petitioner's] time to appeal the PTAB's decision had not yet run. Where relevant, the Federal Circuit has remanded cases to the PTAB to allow it to consider noninstituted claims and grounds following that decision, and has not held that petitioners have waived their right to PTAB adjudication of all claims and grounds by failing to raise the issue before the PTAB prior to *SAS*. [*BioDelivery Scis. Int'l, Inc. v. Aquestive Therapeutics, Inc.*, 898 F.3d 1205, 1207-10 (Fed. Cir. 2018)] (citing cases). [The petitioner in this case] could have appealed and sought such a remand in order to allow the PTAB [to] evaluate the claims and grounds that it raised in its petition on which the PTAB did not institute review. It therefore "reasonably could have raised" those grounds before the PTAB against *any* claim in the [asserted patent], and is estopped from raising them again before this Court.

SiOnyx, 330 F. Supp. 3d at 601. Similar circumstances are applicable to certain aspects of this case, and the Court finds the same logic similarly appropriate.

⁸ This legislative history also supports the view that § 315(e)(2) was intended to provide broad estoppel coverage. Statements made by then-Director Kappos during the enactment of the America Invents Act provide the same:

[i]f I can say that in my own words also, that I believe there are significant advantages for patentees who successfully go through the post-grant system ... because of those estoppel provisions. Those estoppel provisions mean that your patent is largely unchallengeable by the same party.

America Invents Act: Hearing on H.R. 1249 Before the House Comm. on the Judiciary, 112th Cong. 52–53 (2011) (statement of Director David Kappos); see also *Tinnus Enterprises, LLC v. Telebrands Corp.*, No. 6:17-CV-00170-RWS, 2018 WL 3993468, at *3 (E.D. Tex. Aug. 21, 2018) (considering Kappos' statements in the context of estoppel due to Post-Grant Review proceedings).

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Given the current state of the law, including the dearth of guidance from the Federal Circuit on the issues (particularly in a post-*SAS* IPR landscape) and the Court’s consideration of the statutory language, the Court finds that statutory IPR estoppel applies to invalidity grounds that a petitioner “reasonably could have raised” in its IPR petition, which includes prior art that a “skilled searcher conducting a diligent search reasonably could have been expected to discover.” *Id.*; see also *Clearlamp*, 2016 WL 4734389, at *7-8; *Douglas*, 2017 WL 1382556, at *5.

B. Application

Defendants do not dispute that: (1) if IPR estoppel applies to them, it applies to all of them (even if, for instance, Apple filed the petitions) and (2) at the time Defendants were filing IPR petitions, they were aware of all the prior art that they now use to support their invalidity arguments for Claims 13 and 22 of the ’781 Patent and Claims 11 and 18 of the ’032 Patent. See generally, Docket No. 772. Aside from their arguments regarding the scope of § 315(e)(2) estoppel, Defendants argue that they are now bringing certain prior art (Divsalar, Frey/Frey Slides, Pfister/Pfister Slides, and Richardson99) under pre-AIA § 102(a), *i.e.*, not as “patents or printed publications,” but as information that was “known or used by others” before the patented invention. As Defendants note, in IPR proceedings, the PTAB will only consider patents or printed publications as grounds for invalidity due to anticipation or obviousness. 35 U.S.C. § 311(b); *Synopsis, Inc. v. Mentor Graphics Corp.*, 814 F.3d 1309, 1316 (Fed. Cir. 2016). Because, Defendants argue, they are relying on the “known or used” prong of pre-AIA § 102(a) for all but one⁹ of their prior art grounds (*i.e.*, not on prior art patents or printed publications), the prior art could not have been raised during IPR proceedings and IPR estoppel does not apply.

The “pre-AIA” versions of Sections 102 and 103 of the Patent Act apply in this case because each of the Asserted Patents has a priority date that is before the relevant date of enactment

⁹ Defendants raise Ping and Luby98 against Claims 13 and 22 of the ’781 Patent. Defendants do not dispute that Ping and Luby98 are printed publications. Under the Court’s interpretation of § 315(e)(2), Defendants have provided no independent basis as to why estoppel should not apply to this prior art ground. The Court finds that estoppel precludes Defendants from bringing this prior art ground, irrespective of the analysis in this section.

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of the America Invents Act. Pre-AIA § 102(a) states that a person shall be entitled to a patent unless “the invention was known or used **by others** in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent.” 35 U.S.C. § 102(a) (emphasis added). Pre-AIA § 102(b), meanwhile, states that a person shall be entitled to a patent unless “the invention was patented or described in a printed publication . . . more than one year prior to the date of the application for patent.” 35 U.S.C. § 102(b). In other words, the two sections complement one another. While pre-AIA § 102(a) referred to information known or used by “others,” *i.e.* prior art originating from others besides the patent applicant before the “invention . . . by the applicant,” pre-AIA § 102(b) referred to anyone (including the patent applicant and any of the patent applicant’s patents or printed publications that were publicly available more than a year before the relevant patent application was filed). Thus, the juxtaposition between § 102(a) and § 102(b) effectively created a one-year grace period for a patent applicant to file a patent application even after s/he/it disclosed information about an invention to the public. Notably, the language of pre-AIA § 102(a) and § 102(b) existed in the context of the pre-AIA first-to-invent system; the America Invents Act has since changed the requirements for obtaining a patent to a first-to-file system.

The “known or used” prong of § 102(a) can come into play in the instance where a scientist gives a public presentation and shows slides, but does not distribute his/her slides or immediately publish a copy of them. The presentation itself (as, for instance, recollected through the scientist’s testimony) could still be considered prior art even if the presentation slides were not made “publicly available” at the same time as the presentation. *See Ecolochem, Inc. v. S. California Edison Co.*, 227 F.3d 1361, 1369 (Fed. Cir. 2000) (“A presentation indicative of the state of knowledge and use in this country . . . qualifies as prior art for anticipation purposes under § 102.”); *cf. In re Klopfenstein*, 380 F.3d 1345, 1350 (Fed. Cir. 2004) (“The more transient the display, the less likely it is to be considered a ‘printed publication.’”).

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In comparison, in this case, the prior art that Defendants now assert under the “known or used” prong of § 102(a) includes prior art references that Defendants had included in IPR petitions. Specifically, Defendants represented to the PTAB in various petitions that Divsalar, Frey/Frey Slides, and Pfister Slides were printed prior art publications. Defendants have not withdrawn this assertion, and indeed at the hearing reiterated their belief (particularly with respect to Divsalar) that these prior art documents were publicly available before the time of the invention. This suggests that Defendants would (problematically) seek to avoid estoppel so that they can rely on this prior art as *both* printed publications *and* under the “known and used” prong, depending on what position is ultimately more successful.

Some unique circumstances surround each of the four “references” that Defendants now submit under the “known or used” prong of pre-AIA § 102(a). Thus, they will be individually addressed in turn.

1. Richardson99

Unlike Divsalar, Frey/Frey Slides, and Pfister/Pfister Slides, Defendants never raised Richardson99 in an IPR petition. The issue, however, remains that Defendants have maintained that Richardson99 “was published in April of 1999, which is before the filing of the provisional application to which the patents-in-suit claim priority and the alleged conception date.” Original Frey Report ¶ 255; Amended Expert Report of Dr. Brenden Frey, Vol. 1 (“Amended Frey Report”), Docket No. 740-25 ¶ 255 (same).

At the hearing, Defendants argued that there has “long been a dispute” about whether authors emailing members of a relevant community with a website link to a paper is sufficient to make the paper a printed publication. Docket No. 826 (Transcript of Hearing on December 6, 2018 (“Dec. Hearing Tr.”)) at 21:16-17; *see also* 27:21-28:14. Defendants stated that “what Dr. Frey did in his report was treat [Richardson99] as either a printed publication *or* evidence of what was known or used in the art based on Richardson99.” *Id.* at 21:17-20 (emphasis added). Defendants arguments, however, for bringing Richardson99 under the “known or used prong” ring

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like an argument as to whether Richardson99 was publicly available (*i.e.*, qualified as a printed publication). *See id.* at 22:22-25 (“[Frey] is looking at what would a person of ordinary skill in the 1999 period have known, and he is saying ***Richardson99 is one of the references that would have been known.***” (emphasis added)). Importantly, as Plaintiff notes, “the standard for establishing a reference as a ‘printed publication’ is substantively the same as meeting the ‘known or used’ standard of 35 U.S.C. § 102(a), at least when the only prior art at issue is a written document.” Docket No. 798 at 5. Specifically, under the “known or used” prong, the relevant material must still be “publicly accessible.” *Minnesota Min. & Mfg. Co. v. Chemque, Inc.*, 303 F.3d 1294, 1306 (Fed. Cir. 2002) (“For prior art to anticipate because it is ‘known,’ the knowledge must be publicly accessible.”); *Bruckelmyer v. Ground Heaters, Inc.*, 445 F.3d 1374, 1378 (Fed. Cir. 2006) (“Whether a given reference is a ‘printed publication’ depends on whether it was ‘publicly accessible’ during the prior period.”). In other words, to the extent Defendants would assert that Richardson99 is not a printed publication because it was not publicly accessible, an argument that Richardson99 is prior art “known or used” before the invention would also fail. Although Defendants generally addressed their goal to demonstrate what was “known” at the time of the invention, Defendants did not directly address the issue of the applicability of the same “public availability” standard to both printed publications and “known or used” prior art at the hearing.

Defendants also suggested at the hearing that rather than being used as a printed publication, they are using Richardson99 as a “contemporaneous writing from 1999 that would corroborate what was [known or] used” at the time. *Id.* at 29:4-9. This position, however, is not supported by the Frey Reports, which evaluate Richardson99 like a printed publication rather than relying on it to corroborate the testimony of the authors or others. *See, e.g.*, Original Frey Report ¶ 443 (explaining what Richardson99 “states” and “teaches,” including by citing to portions of the Richardson99 document); *see also* Amended Frey Report ¶ 443 (same); *but see* Dec. Hearing Tr. 22:15-25 (referring to paragraph 443 of the Frey Report as supporting Frey performing a “known

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or used” analysis of Richardson99). Defendants’ invalidity analysis relies on Richardson99 as disclosing certain limitations in the relevant asserted claims, not on Richardson99 as confirming the testimony of a person regarding knowledge during the relevant timeframe. Defendants’ position is not persuasive.

Particularly because Defendants have maintained their argument that Richardson99 is a printed publication, they have not provided a sufficient basis to show that IPR estoppel should not apply to this reference or grounds that include this reference in this case.

2. *Divsalar*

Divsalar was fully considered by the PTAB in a Final Written Decision for an IPR proceeding. Defendants note, however, that the Final Written Decision never resolved Plaintiff’s challenge to whether Divsalar was publicly available at the time of the invention. The PTAB found Plaintiff’s challenge was “ultimately mooted” because even considering Defendants’ prior art obviousness combination, including Divsalar, on the merits, Defendants failed to show the relevant claims were unpatentable. Docket No. 767-6 (IPR2017-00701, Paper 67) at 29; *see also* Docket No. 772 at 6-7. In other words, the PTAB fully considered the Divsalar prior art reference on the merits as part of the IPR proceeding.

The parties did not spend much time addressing the Divsalar reference at the hearing,¹⁰ although the Court’s tentative order expressed concerns regarding the PTAB’s full consideration of that reference. The Court acknowledges the unique record created by the PTAB’s decision.

¹⁰ Defendants identify emails from Frey to Divsalar to support their position that certain invalidity arguments are being raised under the “known or used” prong of pre-AIA § 102(a). *See* Dec. Hearing Tr. 30:4-31:6. These emails will be discussed in a separate section regarding the specific prior art ground involving both Frey/Frey Slides and Divsalar. *See, e.g.*, Original Frey Report ¶ 310 (“I remember thinking that Divsalar’s work would benefit from the work that David MacKay and I had completed on irregular turbo-codes.”); Amended Frey Report ¶ 310; Dec. Hearing Tr. 29:10-16 (stating, “[r]elatedly, just to give . . . a flavor of the evidence . . . the combination that is asserted is the Frey Slides and the Divsalar paper” and proceeding to consider the emails from Frey to Divsalar). Neither the Frey Reports nor Defendants’ statements at the hearing provided a basis as to how/why the emails and testimony as between Frey and Divsalar would be relevant to any of the other prior art grounds raised by Defendants. Thus, they are only addressed in the context of that single ground.

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However, as with Richardson99, Defendants still maintain their argument that Divsalar is a printed publication in addition to making their argument under the “known or used” prong. Original Frey Report ¶ 309 (“RA codes are described in detail in references such as Divsalar, published more than a year before the alleged conception date of the patents-in-suit.”); Amended Frey Report ¶ 309. And again, it appears that Defendants’ main basis for now arguing that Divsalar may not qualify as a printed publication relates to public accessibility, which would still remain a problem under the “known or used” prong.¹¹ Finally, again as with Richardson99, Frey’s analysis does not rely on the Divsalar reference as if it is corroborative of some other testimony or knowledge; the Divsalar reference itself forms the basis for the invalidity opinions. These facts again tip the scale to the conclusion that estoppel should generally apply as to this reference and many of the grounds that include this reference in this case.

3. *Frey/Frey Slides [in combination with Divsalar, & Ping]*

At the hearing, Defendants referred to some specific testimony and evidence to support their argument that they are relying on the “known or used” prong of pre-AIA § 102(a) for some of their prior art. Specifically, Defendants identified emails between Frey and Divsalar showing that the two had considered combining the ideas expressed in each of their work. Defendants also submitted deposition testimony from Frey/Divsalar discussing these emails. At the hearing, Plaintiff did not meaningfully respond to Defendants’ presentation of this evidence or explain why estoppel should be applied specifically to this invalidity ground.

Although Defendants referred to this example as providing a “flavor” of the evidence they intend to present under the known or used prong, the evidence relating to this prior art ground appears to be an outlier. Frey discusses the emails in his reports. *See* Original Frey Report ¶¶ 310, 481; Amended Frey Report ¶¶ 310, 481. This is unique from the evidence Frey identifies when

¹¹ Defendants’ arguments regarding Divsalar are particularly unpersuasive as to Defendants’ prior art ground of Ping in view of MacKay, Divsalar, and Luby97. This is the exact ground considered by the PTAB in its final written decision. Defendants argue that its ground in this case is meaningfully different because Divsalar is being presented under the “known or used” prong. Defendants do not present any evidence to support this assertion.

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discussing other prior art, which almost all¹² relates to establishing the publication date of that particular prior art. *See, e.g.*, Original Frey Report ¶¶ 230 (listing evidence to support that the Frey Paper was published and available by a certain date); 245 (same as to Pfister); ¶ 255 (same as to Richardson99); *see also* Amended Frey Report ¶¶ 230, 245, 255.

The Court has some lingering questions regarding the emails and testimony submitted by Defendants with regard to this prior art ground. Namely, this evidence appears to more closely relate to establishing a reason to combine two prior art printed publications than to showing that certain elements of the claims were “known or used” at the time of the invention apart from via printed publications. Problems with the “public accessibility” of the knowledge implicated by the emails and testimony also abound. However, because this issue has not been squarely addressed by Plaintiff, and given the nature of the additional evidence submitted by Defendants, the Court will not extend estoppel to this particular prior art ground at this time.

The Frey/Frey Slides only appear in this prior art ground. The parties presented additional arguments regarding the Frey/Frey Slides in their briefing and at the hearing. For instance, although Defendants did not include the Frey/Frey Slides in their IPR petitions as to the ’781 and ’032 Patent, the opposition acknowledges that they included “Frey” (the Frey Paper) in IPR petitions for the ’710 Patent. Docket No. 772 at 8. In other words, Defendants represented to the PTAB that they believe Frey is a prior art printed publication.¹³ They have not withdrawn arguments regarding the Frey/Frey Slides from consideration in the IPR proceedings. This is also

¹² The only other listed evidence in the Frey Reports is used to establish that, for instance, slides were presented at conferences. Under other circumstances, the Frey Slides and Pfister Slides, particularly if they had been submitted alone rather than in combination with papers that Defendants continue to insist were published before the date of the invention, could have presented unique issues warranting further consideration under the “known or used” prong. However, as discussed in the following section, Defendants have particularly offered up the Pfister Slides as printed publications before the PTAB in IPR petitions.

¹³ At the hearing, Plaintiff submitted that Defendants included both the Frey Paper and Frey Slides in IPR petitions, but only Frey was “instituted as [a] printed publication.”

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consistent with how Defendants previously treated Frey/Frey Slides in this case. *See, e.g.*, Docket No. 673 at 9 (Order re Motion to Strike-In-Part Frey’s Invalidity Opinions, quoting from Original Frey Report as maintaining the initial opinion that the Frey Paper is prior art, where the Frey Report stated, “[i]n the event that the Court finds that the patents-in-suit are entitled to a date of invention that predates the publication of Frey, and the Frey paper is deemed not to be prior art to the patents-in-suit, then the Frey Slides may be substituted for the Frey paper.”).¹⁴ Defendants note, however, that because a final written decision has not been received in an IPR as to the ’710 Patent, it is possible the PTAB will find Frey is not a printed publication, making estoppel inappropriate. Although notable, these additional comments are ultimately irrelevant. Because of the additional emails and testimony submitted by Defendants for this particular prior art ground, estoppel will not be applied to preclude Defendants from relying on this prior art ground at this time.

4. *Pfister/Pfister Slides*

Defendants relied on the Pfister Slides in IPR petitions brought against the ’781 and ’032 Patents. In its initial institution decision, prior to *SAS*, the PTAB partially instituted IPR, but denied institution on the basis of the Pfister Slides. Defendants characterize the record as showing that the PTAB “found” that the Pfister Slides did not qualify as a prior art printed publication. Docket No. 772 at 6. In reality, the PTAB simply found that Defendants had failed to meet their *burden* of making a threshold showing that the Pfister Slides qualified as a printed publication. *See, e.g.*, Docket No. 740-12 at 23-24 (IPR2017-00700, Paper 14) (“With respect to the Pfister Slides, Petitioner fails to meet the burden imposed under § 314(a) to establish in its Petition a reasonable likelihood of success, which includes, among other things, making a threshold showing that the Pfister Slides qualify as a prior art printed publication.”). More importantly, Plaintiff

¹⁴ Notably, Frey’s Amended Expert Report does not include this same statement regarding substituting the Frey Slides for the Frey Paper. *Compare* Original Frey Report ¶ 242, *with* Amended Frey Report ¶¶ 225-241. The rest of the Amended Frey Report’s introductory discussion of Frey/Frey Slides is almost word-for-word the same compared to the Original Frey Report. *Compare* Original Frey Report ¶¶ 225-241 *with* Amended Frey Report ¶¶ 225-241.

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observes that after *SAS*, “the PTAB modified its order to include all of the claims Defendants had attempted to raise, including the one based on Pfister Slides . . . Defendants chose not to pursue them, instead proposing a stipulation that limited the claims the PTAB would consider.” Docket No. 798 at 8.

At the hearing, Defendants argued that the PTAB’s preliminary decision not to institute IPR as to the Pfister Slides supports the conclusion that Defendants should not be estopped from raising prior art grounds that include the Pfister Slides. But what this record shows is that Defendants had the opportunity to have their arguments regarding the Pfister Slides fully heard by the PTAB (including a second opportunity to meet their burden of showing that the Pfister Slides qualified as a prior art printed publication), yet chose not to take it. For the same reasons the district court found persuasive in *SiOnyx*, it is inappropriate to allow Defendants to have a second bite at the apple here, particularly when they opted not to exhaust all of their available administrative remedies on the issue.

In their opposition, Defendants referred to the Pfister/Pfister Slides as their primary example of how they intended to employ “known or used” prior art:

The Pfister Paper and Pfister Slides, as well as Dr. Siegel and Dr. Pfister’s testimony, will illustrate that RAA codes disclosed many elements of the asserted claims that, in combination with other references, render the patents-in-suit invalid. By presenting the slides at the Allerton Conference, Dr. Pfister and Dr. Siegel made RAA codes known to persons of ordinary skill in the art in the United States, and Dr. Pfister and Dr. Siegel used RAA codes in the United States, while working on the Pfister paper. Thus, regardless of whether the Pfister Paper and Pfister Slides were published prior to the invention of the patents-in-suit (which Caltech disputes), Defendants have ample evidence to show that the invention described in the Pfister Paper and Pfister Slides (*i.e.* RAA codes) was known and used in the United States prior to the invention of the patents-in-suit.

Docket No. 772 at 21-22. At the hearing, Defendants similarly suggested that the Pfister Slides had been presented under circumstances like the hypothetical presented in the Court’s tentative

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order: Pfister had shown these slides to the “who’s who” in error correction coding at a conference in 1999, even if Defendants cannot prove publication. But Defendants have not withdrawn the position they advanced before the PTAB that the slides were publicly available prior art printed publications. As with the other “references,” the Frey Reports also do not consider the slides as if they are simply corroborating evidence. The Frey Reports again treat the documents themselves as the core evidentiary basis supporting the invalidity theory. This is apparent even from the language in Defendants’ opposition, which again focus in on the disclosure provided in the Pfister Paper and Pfister Slide documents themselves.¹⁵ On such a record, estoppel is appropriate.

The Court notes that only the Pfister Slides and not the Pfister Paper were included in IPR petitions submitted by Defendants to the PTAB. This does not change the outcome regarding estoppel, particularly because Defendants have put even heavier emphasis on characterizing the Pfister Paper as a printed publication compared to the Pfister Slides. *See* Original Frey Report ¶ 245; Amended Frey Report ¶ 245.

Defendants argue that their bundling of Pfister and the Pfister Slides supports the conclusion that they are relying on the “known or used” prong of pre-AIA § 102(a) rather than relying on this prior art as a printed publication. Docket No. 772 at 24. Defendants’ decision to bundle these two documents has received ongoing objection from Plaintiff and has been touched

¹⁵ In reply, Plaintiff also notes that:

none of this purported testimony has been previously disclosed or identified. If Defendants wished to rely on testimony concerning these or other papers to support Dr. Frey’s invalidity opinions, they should have disclosed such testimony in fact discovery and in the Frey Report Although they attempt to rely on the expert report of Dr. Paul Siegel, in the cited portions of his report, Dr. Siegel merely explains the contents of his slide presentation, and the circumstances of its presentation; Defendants do not identify anything that could not reasonably have been raised during the IPR.

Docket No. 798 at 19-20.

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on but never fully resolved by the Court.¹⁶ *See, e.g.*, Docket No. 673 at 9 (Court’s Tentative Order regarding Motion to Strike-In-Part Invalidity Contentions, modified as stated in minutes and on the record). Notably, in evaluating the Original Frey Report and its references to the Frey/Frey Slides, including that the Frey Slides could be *substituted for* the Frey Paper in the invalidity analysis (*see* Original Frey Report ¶ 242), the Court previously commented:

This is not the language of an expert purporting to use the Frey Paper/Frey Slides as a single reference. Instead, Defendants/Frey appear to be hedging their bets and trying to maintain two alternative prior art references until a priority date dispute is resolved. Indeed, if it is true as Defendants assert that the “disclosures in the papers and slides are materially the same for purposes of invalidity,” (Docket No. 616 at 25), Defendants need to just make their selection[.]

Id. Although the Court ultimately allowed Defendants a second attempt to submit an amended Frey report relying on these two references in a bundle, particularly Defendants’ assertions – that they were bundling because they were waiting for a priority date issue to be resolved (*see id.*) and that the “disclosures in the papers and slides are materially the same for purposes of invalidity” – remain relevant and support the Court’s conclusion that estoppel is appropriate.

5. Further Thoughts on the Four References

As Plaintiff notes, one of Defendants’ arguments in its opposition for relying on the “known or used” prong of pre-AIA § 102(a) relates to the fact that *Plaintiff, after* Defendants filed their IPR petitions, challenged whether certain prior art references in the IPR petitions were entitled to a publication date earlier than the effective filing date of the Asserted Patents. The Court agrees with Plaintiff that the relevant focus in evaluating estoppel should be on Defendants’

¹⁶ Defendants assert that “the Court has already authorized Defendants’ presentation of the Pfister and Pfister Slides and Frey and Frey Slides as evidence of inventions ‘known or used in the United States’ under 35 U.S.C. § 102(a).” Docket No. 772 at 13. Although Defendants asserted that their bundling was appropriate at the hearing on the motion to strike and were given the opportunity to submit a supplemental expert report consistent with that position, a final determination as to Defendants’ bundling could not be made at that time because the Original Frey Report did not actually consider, for instance, the Frey Paper and Frey Slides together in a meaningful way. Defendants’ “notice” on the docket (*see* Docket No. 682) does not change this conclusion.

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actions, not Plaintiff's actions, particularly where Defendants continue to argue that Divsalar, Richardson99, Frey/Frey Slides, and Pfister/Pfister Slides are printed publications.

At the hearing, Defendants also emphasized an analogy to a circumstance where a petitioner submits a product manual as printed publication prior art before the PTAB, but is not estopped from submitting a prior art product itself in district court litigation. Even in these circumstances, district courts have sometimes looked skeptically on “dressing up a ground based on publicly available datasheets as a ground based on a product.” *SiOnyx*, 330 F. Supp. 3d at 603 (citing *Milwaukee Electric*, 271 F. Supp. 3d at 1032; *Clearlamp*, 2016 WL 4734389, at *9). The district court in *SiOnyx* found that estoppel would not apply to a prior art obviousness invalidity ground involving a product, noting that the defendants had consistently relied on a certain aspect of the product, as reflected in a potentially non-public manufacturing specification, as “the only citation for certain claim limitations.” *Id.* at 603-04; *see also Star Envirotech, Inc. v. Redline Detection, LLC*, No. SACV 12-01861 JGB (DFMx), 2015 WL 4744394, at *4 (C.D. Cal. Jan. 29, 2015) (“the physical machine itself discloses features claimed in the '808 Patent that are not included in the instruction manual, and it is therefore a superior and separate reference.”). *Milwaukee Electric* similarly expressed concerns that the defendant should not be allowed to “skirt” estoppel “by purporting to rely on a device without actually relying on the device itself,” but otherwise found that estoppel would not extend to prior art grounds including products. *Milwaukee Electric*, 271 F. Supp. 3d at 1032. In *Clearlamp*, the district court found that defendant was attempting to “cloak” its prior art ground based on a datasheet by characterizing it as related to a product itself. *Clearlamp*, 2016 WL 4734389, at *9. Although the district court found this was not appropriate, estoppel did not attach because the plaintiff failed to meet its burden of showing that the product datasheet could have been found by a searcher performing a reasonable search at the time the IPR petition was prepared. *Id.* at *9-10.

The Court notes that each of these cases ultimately declined to extend estoppel to prior art grounds involving a product. The current case offers unique circumstances compared to those

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surrounding a product versus a product manual. In this case, whether brought as a “printed publication” or under the “known or used” prong, the core element that forms the basis of Defendants’ prior art includes the same document(s). There is not even a separate and distinct product or document that could be used as the “cloak” to shield Defendants. Moreover, although Defendants assert that there will be a “meaningful difference” in the invalidity presentation under the “known or used” prong, Defendants have not presented sufficient evidence to back that assertion. The Frey Reports show that Defendants still rely on the teachings of the documents themselves to demonstrate that particular claim limitations were taught by the prior art. *See, e.g.*, Amended Frey Report ¶ 245 (“Pfister/Pfister Slides **explicitly builds on** the disclosure of Divsalar . . .”), ¶ 246 (“On page 8, Pfister **illustrates** . . .”), ¶ 248 (“Likewise, Pfister Slides **illustrate** . . .”), ¶ 250 (“A person of ordinary skill in the art would have understood that Pfister/Pfister Slides **discloses** a regular code.”); Original Frey Report ¶¶ 367-69 (stating “Pfister/Pfister Slides **discloses** this limitation” and citing to specific portions of the Pfister Paper and Pfister Slides), ¶ 468 (“incorporating the second accumulator would have been obvious because second accumulators were a known technique **as disclosed in** Pfister/Pfister Slides . . .”); (*see also* Docket No. 767-15 at 5 (Defendants’ Final Invalidity Contentions, stating, “[t]he disclosures and inventions **of these [prior art] references** were known or used in the United States prior to the invention of the patents-in-suit.”). Notably, Defendants do not assert that some evidence beyond the documents supplies missing disclosure related to a particular claim limitation. Defendants have not identified, for instance, circumstances where the only citation for a limitation relies on testimony of a contemporary in the field at the time of the invention. As Plaintiff put it at the hearing, all of Defendants’ actual arguments to show that certain limitations were disclosed in the prior art “emanate” from the documents.

The issue may also have been a closer call were Defendants willing to concede that this prior art was not publicly available at the time of the invention. Having refused to withdraw that

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position, it would be inappropriate to allow Defendants to bypass statutory estoppel as to these references.

After considering the unique facts of this case, including the specific prior art grounds Defendants seek to characterize, in general the Court is not persuaded by Defendants’ argument that it is shielded from statutory IPR estoppel by its references to the “known or used” prong of § 102(a). Accordingly, the Court finds that statutory IPR estoppel applies to each of the obviousness combinations Defendants has raised in district court litigation against Claims 13 and 22 of the ’781 Patent and Claims 11 and 18 of the ’032 Patent except for their invalidity ground against Claims 13 and 22 of the ’781 Patent based on Divsalar, Frey/Frey Slides, and Ping.

V. Conclusion

For the reasons stated in this Order, the Court **GRANTS** Plaintiff’s Motion for Summary Judgment (Docket No. 740) except as to Defendants’ invalidity ground against Claims 13 and 22 of the ’781 Patent based on Divsalar, Frey/Frey Slides, and Ping.¹⁷

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¹⁷ At the hearing, Defendants suggested that if the Court were to maintain its tentative views on Plaintiff’s summary judgment motion, Defendants would request that the issue be certified for interlocutory appeal. Plaintiff did not respond to Defendants’ position at the hearing. Although the Court indicated that Defendants remain free to proceed with the application, to the extent Defendants maintain their intent to seek certification for interlocutory appeal, they will need to confer with Plaintiff on the issue and formally raise any related requests with the Court through the proper procedures.