

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO. LTD.,
SAMSUNG ELECTRONICS AMERICA, INC.,
SAMSUNG SEMICONDUCTOR, INC., and
SAMSUNG AUSTIN SEMICONDUCTOR, LLC,

Petitioners

v.

CHIEN-MIN SUNG,

Patent Owner

IPR2024-00534
U.S. Patent No. 9,138,862

**PATENT OWNER'S REPLY
IN SUPPORT OF ITS MOTION TO EXCLUDE**

Mail Stop PATENT BOARD
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Submitted Electronically via PTACTS

I. CERTAIN PORTIONS OF DR. SHANFIELD'S DECLARATION (EX. 1002) SHOULD BE EXCLUDED

First, Patent Owner agrees that a Motion to Exclude is not a proper vehicle for addressing *the weight* of evidence, as stated in the Consolidated Trial Practice Guide (Nov. 2019) ("CTPG"). Patent Owner contends that Dr. Shanfield's opinions should be given no weight and has not shied away from supporting that argument throughout its briefing. Indeed, otherwise Patent Owner would not have relied upon its own, (and qualified) expert: Dr. Tsai. But, as set forth in the Motion to Exclude, Dr. Shanfield's declaration also includes substantial *improper* testimony, which should be excluded.

Second, Patent Owner does not advance merits arguments beyond those of the POR and Sur-Reply. Even so, Petitioners assert the following "arguments" are new:

- (1) "while broad expertise may suffice in some contexts, it cannot substitute for the particularized knowledge needed to evaluate a highly specialized technology, such as CMP and CMP pad conditioners"; and
- (2) "Dr. Shanfield's decision not to submit a rebuttal declaration addressing Dr. Tsai's deposition testimony ... either reflects a tacit concession that Dr. Tsai is correct ... or it confirms that Dr. Shanfield lacks the necessary technical competence to even engage with the analysis."

(Paper 30 at 3) (citations omitted). Neither of these is new or revelatory.

Point (1) is encompassed in the POR, at least by the following: "[A] POSITA would have necessarily had specific experience with the design and development of CMP pad dressers, including the background and progression of CMP design as outlined below," ("below" including a "Background of CMP Pad Dresser Development"), and "Patent Owner contends that Dr. Shanfield's lack of that specialized experience disqualifies him as a POSITA. At most, Dr. Shanfield states

that he has generally worked with CMP systems . . . but he does not profess any experience related to the design and development of pad dressers.” (Paper 17 at 3 (citations omitted); *accord* Paper 25, PO Sur-reply, at 21-23.) Point (2) is a logical inference reasonably drawn from the fact of Petitioners’ and/or Dr. Shanfield’s chosen tactic: no rebuttal to his lack of experience was made because none could have been.

Petitioners respond that “far from Patent Owner’s assertions, Dr. Shanfield has extensive experience in integrated circuit processing and manufacturing” and claims that “Dr. Shanfield has particularized knowledge about both the use and design of CMP pad dressers.” (Paper 30 at 5.) The latter claim is untrue: nothing in the cited ¶¶ 2-12 or App’x A of Ex. 1002 supports Petitioners’ claim that Dr. Shanfield has any such expertise—or indeed, has any experience with CMP pad conditioning *at all*.

And the former claim is irrelevant. Petitioners claim that an expert need only be “qualified in the pertinent art,” not a POSITA. (Paper 30 at 5-6 (citing *A.C. Dispensing Equipment, Inc., v. Prince Castle LLC*, IPR2014-00511, Paper 33 at 10 (PTAB Aug. 4, 2015) (citing *Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1363-64 (Fed. Cir. 2008)).) But it is clear that Dr. Shanfield is not “qualified in the pertinent art” of **CMP pad conditioning**. (Paper 29 at 4-7).¹ That remains un rebutted; Petitioners have failed to connect Dr. Shanfield’s general familiarity with

¹ And so, to quote Petitioners’ own cited case law, Dr. Shanfield may not “testify as an expert on obviousness, or any of the underlying technical questions, such as the nature of the claimed invention, the scope and content of prior art, the differences between the claimed invention and the prior art, or the motivation of one of ordinary skill in the art to combine these references to achieve the claimed invention.” *Sundance*, 550 F.3d at 1364.

CMP to **any** qualifications “in the pertinent art”—the design and use **of the dressers** used to condition the CMP pads for the procedures where familiarity was claimed.

Seeking to argue that Dr. Shanfield is nevertheless still qualified to opine here, Petitioners rely upon the unfavorable **outcome** of a field and sub-field comparison in *Hirata v. S. Nev. Health Dist.* (Paper 30 at 5-6 (citing No. 2:13-cv-2302-LDG-VCF, 2016 U.S. Dist. LEXIS 185235, at *7 (D. Nev. May 31, 2016))).) But Petitioners ignore *Hirata*'s explanations: “An expert witness may be qualified to testify on a particular subject matter, but be unqualified to testify on a related subject matter” and “[a]n expert's general expertise in a subject area however will not automatically qualify the expert to testify on a specific sub-category within that subject area.” *Hirata* at *5, *7 (citing *United States v. Chang*, 207 F.3d 1169, 1172 n.2, 1173 (9th Cir. 2000)). *Hirata* explained that, in *Chang*, the testimony was excluded because the expert's “general expertise in international finance did not render him qualified to testify on the authenticity of bank certificates.” *Id.* at *5.

Petitioners have failed to explain otherwise. In response, Petitioners instead offer nothing but pure *ipse dixit*; they simply assert that Dr. Shanfield's general experience qualifies him to offer expert opinion in this specific sub-field but **fail to explain**, in either the Reply or the MTEE, how that is so. That is because they cannot.

Petitioners likewise claim that “[l]ack of submission of a **rebuttal** declaration is not a proper basis for excluding an expert's **opening** declaration” (Paper 30 at 6), but they cite no authority. While Dr. Shanfield was not **required** to submit a rebuttal

declaration, such absence is telling. Its mere status as an opening report does not prevent portions of Dr. Shanfield's declaration from properly being excluded, and he and Petitioners declined to elaborate how Dr. Shanfield's general experience applies.

Third, Petitioners over-rely on the Institution Decision's tentative view of a POSITA to argue that Dr. Shanfield is qualified, based on the so-called "erroneous assumption that the Board will adopt the definition of a POSITA proffered *by Patent Owner*" (Paper 30 at 7.) But that use of that POSITA was only "[f]or purposes of this [Institution] Decision," as the Board had not yet heard from PO.² (Paper 14 at 30.) Since Institution, the record has been developed, which has better informed the definition of a POSITA and revealed the deficiencies in Dr. Shanfield's qualifications.

Petitioners state that "Patent Owner proffers no objective rationale why the level proffered by Patent Owner should be adopted, except for Dr. Tsai's say-so." (Paper 30 at 7.) Untrue. The Patent Owner Response describes the background and progression of CMP pad dresser development, citing to references beyond Dr. Tsai. (See Paper 17 at 6-15.) Dr. Shanfield has no relevant experience in this regard.

Lastly, Petitioners claim that all of Dr. Shanfield's opinions are "supported by evidence in the prior art references relied on by Dr. Shanfield" in that he "cited multiple disclosures" in the prior art. (Paper 30 at 8-9) But this ignores that Dr. Shanfield is not qualified to offer such opinions regarding this subfield, and so relied on guesswork as set forth in the Motion to Exclude—which Petitioners do not dispute.

² The Board "g[a]ve Petitioner's conclusory argument and Dr. Shanfield's conclusory testimony minimal probative weight" regarding a POSITA. Paper 14 at 29.

II. EACH OF EXS. 1050-57 SHOULD BE EXCLUDED IN ITS ENTIRETY

Petitioners call Exs. 1050-57 “rebuttal evidence” that is not “needlessly cumulative” (Paper 30 at 10), but the exhibits are cited only one time in Petitioners’ Reply—collectively, without so much as a pin cite made to *any* of them (Paper 23 at 24). These exhibits were used during deposition to elicit testimony from Dr. Tsai, who testified at length why Petitioners’ assumptions were wrong in multiple ways. (*See, e.g.*, IPR2024-00533, Paper 25 at 28.) These new exhibits have no place here, and as used in Petitioners’ Reply, they are *late*, needlessly cumulative, and a waste of time.

III. EACH OF EXS. 1058-59 SHOULD BE EXCLUDED IN ITS ENTIRETY

Petitioners call Ex. 1058 “rebuttal evidence” on the definition of a POSITA (Paper 30 at 11-12), but their original POSITA definition in the Petition should have included all such supporting evidence. But it did not. Ex. 1058 was *filed late* and is irrelevant and a waste of time because it was only used to state a fact not in dispute.

Likewise, Petitioners call Ex. 1059 “rebuttal evidence” because “Petitioner was not aware that Patent Owner would make conflicting arguments in related IPRs.” (Paper 30 at 12-13.) But Ex. 1059 is needlessly cumulative in *this* proceeding, because as Petitioners admit, it is identical to Ex. 1004 (Sung ’026). (*Id.* at 13.) If Petitioners believed Ex. 1059 to be relevant prior art, then they could have and should have submitted it in the Petition, instead of (or in addition to) Ex. 1004. But they did not, and they have likewise failed to explain why they could not have cited the parallel portions of Ex. 1004, which is already of record. Ex. 1059 was *filed late* without proper authorization and is also needlessly cumulative. It should be excluded.

Case IPR2024-00534
Patent No. 9,138,862
Patent Owner's Reply ISO Its Motion to Exclude

Dated: June 11, 2025

Respectfully submitted,

/ Alex Chan /

Alex Chan (Reg. No. 52,713)
DEVLIN LAW FIRM LLC
1526 Gilpin Avenue
Wilmington, DE 19806
Tel: (302) 449-9010
achan@devlinlawfirm.com

Counsel for Patent Owner
Dr. Chien-Min Sung

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies that on June 11, 2025, the foregoing document is being served via electronic mail upon the following counsel of record for Petitioners:

LEAD COUNSEL	BACKUP COUNSEL
Yung-Hoon Ha (Reg. No. 56,368) Desmarais LLP 230 Park Ave New York, NY 10169 Telephone: (212) 351-3400 Email: yha@desmaraisllp.com	Laura Avena (Reg. No. 78,920) Desmarais LLP 230 Park Ave New York, NY 10169 Telephone: (212) 351-3400 Email: lavena@desmaraisllp.com Taeg Sang Cho (Reg. No. 69,618) Desmarais LLP 230 Park Ave New York, NY 10169 Telephone: (212) 351-3400 Email: tcho@desmaraisllp.com Bridget Belcher (Reg. No. 82,861) Desmarais LLP 101 California Street San Francisco, CA 94111 Telephone: (415) 573-1900 Email: bbelcher@desmaraisllp.com
Additional email for service: SamsungSungIPRService@desmaraisllp.com	

/ Alex Chan /
Alex Chan
Reg. No. 52,713