

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Caihong Display Devices Co., Ltd.,

Petitioner,

v.

Corning Incorporated,

Patent Owner.

Case No.: IPR2025-01040

U.S. Patent No. 9,512,025

**PETITIONER'S OPPOSITION TO PATENT OWNER'S
DISCRETIONARY DENIAL BRIEF**

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PETITIONER’S EXHIBIT LIST

EX1001	U.S. Patent No. 9,512,025 (“the ’025 Patent”) with certified Japanese translation
EX1002	Partial Prosecution History of the ’025 Patent with certified Japanese translation
EX1003	Declaration of Murakami Tsugunobu
EX1004	U.S. 2011/0209502 (“El Kahlout”) with certified Japanese translation
EX1005	CN102765869 (“CN ’869”) with certified English translation and certified Japanese translation
EX1006	U.S. 2012/0111060 (“Tsuda”) with certified Japanese translation
EX1007	<i>Curriculum Vitae</i> of Murakami Tsugunobu

I. INTRODUCTION

The Petition should be granted and a trial instituted because the PTAB serves as the most efficient forum for determining patentability for 9,512,025 ("the '025 Patent") and represents the only forum in which Petitioner can obtain complete relief. Indeed, while the International Trade Commission (ITC) can adjudicate patent validity, that determination does not result in claim invalidity because the ITC lacks authority to cancel claims.

The “settled expectations” doctrine emphasizes the protection of patent owners’ reliance interests, particularly for patents that have been in force for an extended period, weighing the disruptive impact of late-stage challenges against the public interest in correcting erroneous grants of monopoly rights. However, while the doctrine counters established precedent, the doctrine is not absolute; there is no bright-line rule for when expectations become sufficiently “settled,” and institution may proceed where compelling circumstances, such as material errors by the examiner during prosecution, justify review to ensure the integrity of the patent system. Here, the petitioner demonstrates such material errors overcoming any presumption of settled expectations and warranting institution.

Patent Owner's arguments for discretionary denial lack merit and fail to overcome the compelling case for institution presented by Petitioner's well-

supported obviousness challenge. The Petition demonstrates clear material errors during prosecution that outweigh any claimed "settled expectations," and the parallel proceedings do not justify denial under a proper *Fintiv* analysis.

Most significantly, Patent Owner's characterization of missing limitations fundamentally misunderstands the prior art combination and obviousness analysis. The cited prior art teaches each limitation when properly analyzed under the correct legal framework. Patent Owner's arguments amount to claim-by-claim arguments better suited for trial on the merits rather than grounds for discretionary denial.

The material errors during prosecution are particularly compelling here. While El Kahlout was cited and applied in an obviousness rejection during prosecution, it was overcome based on the Examiner's finding that certain key limitations were missing. However, the addition of CN '869 - which was never considered during prosecution - provides the very teachings that the Examiner found lacking, creating substantially new arguments that warrant IPR review.

Permitting this patent to evade review due to its age would perpetuate an erroneous grant, contrary to the public interest and the America Invents Act's (AIA) goal of efficient post-grant challenges.

In totality, the material errors outweigh any settled expectations. Absent institution, the public would bear the cost of an erroneously granted patent, eroding

confidence in the USPTO. Therefore, the IPR should be instituted to rectify these errors, consistent with Acting Director Stewart’s emphasis on equitable application of discretion.

Discretionary denial is not appropriate.

II. REASONS WHY THE BOARD SHOULD NOT EXERCISE ITS DISCRETION TO DENY INSTITUTION

A. THE NEWLY CREATED SETTLED EXPECTATIONS DOCTRINE IS IMPROPER

Patent Owner posits that the age of the ‘025 patent precludes institution of the IPR based on the so-called settled expectations, citing *Dabico Airport Solutions Inc., v. AXA Power ApS*, IPR2025-00408, Paper 21 at 2 (PTAB June 18, 2025) (discretionarily denying review for a patent that had been in force for “almost eight years”); *Intel Corp. v. Proxense LLC*, IPR2025-00327, Paper 12 at 2 (PTAB Jun. 26, 2025) (“[T]he challenged patents have been in force over nine years, creating settled expectations, and Petitioner does not provide any persuasive reasoning why an *inter partes* review is an appropriate use of Board resources.”).

The doctrine, which permits denials for patents held unchallenged for several or more years with significant reliance interests lacks statutory grounding, imposes arbitrary restrictions, and undermines the AIA’s core purpose. More significantly, the doctrine is in direct contradiction to the Board’s own precedential

decisions. *NHK Spring Co. v. Intri-Plex Techs. Inc.*, IPR2018-00752, Paper 8 at 19 (PTAB March 2, 2020) (precedential).

The settled expectations doctrine requires clear congressional authorization due to its vast economic and political significance. *West Virginia v. EPA*, 597 U.S. 697 (2022). By shielding older patents from IPR review based on their age and reliance interests, the doctrine protects billions in patent-driven revenue across countless industries likely impacting billions of dollars in licensing or market investments. Such a policy, which creates a *de facto* amnesty for long-held patents, even if they are invalid, and significantly alters the AIA’s balance between patent owners and challengers, a matter of “deep economic and political significance” requiring explicit statutory authority (*West Virginia*, 597 U.S. at 716).

The AIA’s text and legislative history provide no such authorization. 35 U.S.C. § 314(a) permits the Director to institute IPR if there is a “reasonable likelihood” of prevailing, with discretion limited to administrative considerations like efficiency or preventing harassment (H.R. Rep. No. 112-98, at 46, 2011; 157 Cong. Rec. S1364, 2011). The legislative history emphasizes IPRs as a mechanism to challenge weak patents and foster innovation, with no mention of patent age or reliance as barriers. The settled expectations doctrine, if applied in the present instance imposes a substantive restriction absent from the AIA’s framework.

The AIA's silence on time-based or reliance-based denials, coupled with its focus on patent quality demonstrates that the doctrine exceeds the Director's authority. Congress intended IPRs to be broadly accessible under 35 U.S.C. § 311(a), which grants "a person who is not the owner" the right to petition without age-based restrictions.

The settled expectations doctrine's widespread application threatens the patent system's integrity. By shielding older patents like the '025 patent, it perpetuates invalid monopolies, stifles innovation, and increases litigation costs, contrary to the AIA's goals.

B. SETTLED EXPECTATIONS ARE OUTWEIGHED BY MATERIAL ERROR DURING PROSECUTION

Without conceding the propriety of the newly minted settled expectations doctrine, the patent examiner's material errors during prosecution outweigh those settled expectations. This is particularly evident where, as is here, petitioner presented a compelling basis for challenging the '025 patent, which demonstrates obviousness that was entirely and improperly missed during prosecution. *See Skullcandy, Inc. v Earin AB* IPR2025-00690, Paper 9 at 2 (PTAB July 31, 2025) ("the challenged patent issued nine years ago, creating strong settled expectations. While ordinarily that counsels for discretionary denial, Petitioner persuasively

explains that the patent examiner materially erred during prosecution of the challenged patent.”).

In determining whether to deny institution under § 325(d), the following two-part framework applies: (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of [the] first part of the framework is satisfied, whether the petitioner has demonstrated that the *Office erred in a manner material to the patentability of challenged claims*. *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6, 8 (PTAB Feb. 13, 2020) (precedential). The *Becton, Dickinson* factors provide useful insight into how to apply the *Advanced Bionics* framework under 35 U.S.C. § 325(d). *Id.* at 9 (referencing *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8, 17–18 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first paragraph)).

The Petition presents genuinely new arguments because the USPTO never considered the specific three-way combination of El Kahlout, CN '869, and Tsuda. While El Kahlout and Tsuda were before the Office during prosecution, **CN '869 was never cited or considered** and provides crucial teachings that address the limitations the Examiner found missing from El Kahlout alone.

1. The Petition demonstrates material error.

First, as to the material differences between the prior art relied on in the Petition and that involved during examination, as CN '869 was never cited or considered by the Examiner during prosecution, the framework of part 1 of *Advanced Bionics* does not favor discretionary denial. *Oticon Medical AB v. Cochlear Ltd.*, IPR2019-00975, Paper 15 (Oct. 16, 2019) (declining to exercise discretion under 35 U.S.C. § 325(d), because the petitioner relied on a new prior art reference not considered during prosecution).

Second, the ground of unpatentability relied upon by Petitioner is not cumulative to the prior art considered by the Examiner during prosecution. Nor does patent owner purport that it is.

Third, with respect to *Becton Dickinson* factor (c), USPTO has not previously considered the teachings of El Kahlout and Tsuda, particularly when combined with the disclosure in CN '869 (EX1005), which describes features of the '025 Patent claims that were deemed to be patentable by the USPTO.

Fourth, there is no overlap between the arguments presented during prosecution and the way Petitioner relies upon El Kahlout and Tsuda, particularly when combined with the disclosure in CN '869.

Fifth, and most compelling with respect to Becton Dickinson factor (e), CN '869 Cures the Allowance-Based Limitations. The Petition demonstrates that CN '869 specifically teaches the angled heat directing surface limitations (inclined at less than 90°) that formed the basis for allowance over El Kahlout. The prosecution history shows the Examiner allowed claims specifically because El Kahlout lacked these angular relationships, view factors, and thermal shielding configurations that CN '869 directly addresses. EX1002, at 000022. Petitioner has shown clear material error under the two-part Advanced Bionics Framework test: (1) while El Kahlout was previously considered, the three-way combination was not, and (2) the Office materially erred by not having access to CN '869's teachings that cure the specific deficiencies identified during prosecution.

2. § 314 does not provide a basis to deny the Petition.

The filing of this Petition is not abusive, neither the Office nor the Board has previously addressed the grounds raised in this Petition, and instituting this proceeding would be an efficient use of the Board's resources. Accordingly, denial under § 314(a) is not warranted. *See General Plastic Industrial Co. v. Canon Kabushiki Kaisha*, IPR2016-01357 (PTAB Sept. 6, 2017) (precedential).

C. ANALYSIS OF THE *FINTIV* FACTORS DEMONSTRATES THAT DISCRETIONARY DENIAL IS NOT APPROPRIATE

The *Fintiv* factors do not weigh in favor of discretionary denial in this case.

In its brief, Patent Owner contends that the Petition should be denied based on the *Fintiv* factors, along with certain additional considerations set forth in the Director's Memorandum dated March 26, 2025. *See* Patent Owner's Discretionary Denial Brief, Paper 6 at 8. Contrary to Patent Owner's assertions, however, discretionary denial is not warranted here, as a holistic analysis of the *Fintiv* factors demonstrates.

Additionally, Petitioner acted diligently and expeditiously in filing its Petition, which sets forth compelling, well-supported grounds demonstrating that the claims of the '025 Patent should never have been granted in the first place. Patent Owner's arguments to the contrary are both unsubstantiated and unpersuasive.

Although there are two co-pending proceedings involving the '025 Patent – *Certain Glass Substrates for Liquid Crystal Displays, Products Containing the Same, and Methods for Manufacturing the Same (II)*, Inv. No. 337-TA-1441 and *Corning Inc. v. Caihong Display Devices Co., Ltd.*, Case No. 1-24-cv-02328 (EDVA) – this Petition should not be denied under the discretionary factors set forth in *Apple v. Finitiv, Inc.*, IPR2020-00019, Paper 11, at 6 (PTAB Mar. 20, 2020), for at least the following reasons.

1. Whether the court granted a stay

The co-pending district court litigation involving the ‘025 Patent has been stayed and that stay will remain in place until the completion of the ITC’s investigation and any subsequent appeals.

Although the co-pending ITC investigation has not been stayed, because the ITC does not permit the filing of a counterclaim for invalidity, the co-pending ITC investigation cannot and will not address all of the claims of the ‘025 Patent, including independent claim 1. It is only through this IPR proceeding that Petitioner can possibly obtain complete relief.

This factor is, at best, neutral as to discretionary denial. *See POSCO CO., Ltd. v. Arcelormittal*, IPR2024-01376, Paper 11 at 13 (PTAB March 18, 2025): “We determine that, given *Fintiv*’s explanation of this situation, the weight of the district court’s stay pending the ITC Investigation and the weight of the lack of a stay of in the ITC Investigation itself depends, in part, on factor four. Thus, we determine that factor one, by itself, is neutral or bears little weight in our overall analysis, but consideration of the district court stay pending ITC investigation elevates the importance of factor four.”

2. Proximity of the court's trial date

The district court action is currently stayed and that stay will remain in place until at least August 2026, when the ITC is scheduled to issue a Final Determination in the co-pending investigation. Accordingly, it is unlikely that the district court action will be tried before the Board's projected statutory deadline for a FWD.

Although a Final Determination is scheduled to be issued in the co-pending ITC investigation in August 2026, that FD will necessarily not involve all of the claims of the '025 Patent, including independent claim 1.

This factor is, at best, neutral to discretionary denial when the relationship between ITC proceedings and PTAB adjudications are properly weighted, as is discussed further in factor 4 below.

3. Investment in parallel proceedings

The parties and the ITC will have expended significant resources by the DI deadline. This factor is, at best, neutral to discretionary denial when the relationship between ITC proceedings and PTAB adjudications are properly weighted, as is discussed further in factor 4 below.

4. Overlap of issues

Because the co-pending district court action will remain stayed until after the Board's statutory deadline for a FWD, there will be no overlap of issues in the two proceedings due to the estoppel provisions of 35 U.S.C. § 315(e)(2).

Reliance on a parallel ITC Investigation to deny institution of the IPR would be a clear legal error. *Wirtgen Am., Inc. v. Caterpillar Paving Prods. Inc.*, IPR2018-01201, Paper 13 at 12 (PTAB Jan. 8, 2019); *see also Emerson Elec. Co. v. SIPCO, LLC*, IPR2019-00545, Paper 16 at 13 (PTAB Aug. 30, 2019). Petitioner will not be free of threats of litigation from Patent Owner even if it prevails in the ITC investigation. *See INVT SPE LLC v. Int'l Trade Comm'n*, 46 F.4th 1361, 1370 (Fed. Cir. 2022) ("ITC determinations of patent infringement and validity do not have preclusive effect on district courts, even when affirmed by the Federal Circuit."); *see also Bio-Tech. Gen. Corp. v. Genentech, Inc.*, 80 F.3d 1553, 1563–64 (Fed. Cir. 1996) (ITC decisions do not bind a subsequent federal court under the doctrine of claim preclusion); *Texas Instruments, Inc. v. U.S. Int'l Trade Comm'n*, 851 F.2d 342, 344 (Fed. Cir. 1988) ("[T]his court has stated that the ITC's determinations regarding patent issues should be given no *res judicata* or collateral estoppel effect."). Consequently, the Board has frequently declined to deny IPR petitions in view of parallel ITC proceedings, that is up until Acting Director Stewart created a

basis out of thin air.

Significantly, the issue of validity of all pending claims is not an issue in the ITC investigation, including independent claim 1 (from which all of the claims being asserted depend). *See Samsung Electronics Co. v. Dynamics, Inc.*, IPR2020-00499, Paper 41 at 13 (PTAB Aug. 12, 2020) (declining to exercise discretion after determining claim limitations at issue before the Board were not at issue in the ITC proceeding); *3Shape A/S v. Align Technology, Inc.*, IPR2020-00223, Paper 12 at 33-34 (PTAB May 26, 2020) (declining to exercise discretion after finding that the ITC investigation would not resolve all claims at issue in the IPR proceeding). Indeed, while the ITC's decision in the co-pending investigation may be informative, in this case, because the ITC will not be considering all of the claims of the '025 Patent, that investigation “does not render our proceeding duplicative or amount to a waste of the Board’s resources.” *Wirtgen*, Paper 13 at 11. Accordingly, instituting trial here would be a more efficient alternative to the stayed district court litigation and the co-pending ITC investigation. *See Samsung*, Paper 41 at 13.

The 2022 Vidal Memo codified barring ITC-based denials because “the ITC lacks authority to invalidate a patent and the ITC's invalidity rulings are not binding on the Office or on district courts.” The 2025 memorandum’s reversal, prioritizing

ITC timing, lacks reasoned explanation (*Motor Vehicle Mfrs. Ass'n v. State Farm*, 463 U.S. 29, 43, 1983) contrary to settled precedent on this issue.

The AIA's legislative history emphasizes the PTAB's role as the primary forum for patentability disputes, not deference to the ITC's non-binding infringement findings (H.R. Rep. No. 112-98, at 39–40, 2011; S. Rep. No. 112-31, at 33, 2011).

The ITC's limited jurisdiction under 19 U.S.C. § 1337(c) excludes invalidity adjudication, making it an improper basis for denying PTAB review. By prioritizing the ITC's projected determination over Petitioner's meritorious challenge, the PTAB allows potentially invalid claims to persist, harming industry competition, consumer prices and the like.

Finally, to reduce the potential for even a partial overlap of issues, if the Board institutes trial on this Petition, Petitioner will not assert in the ITC investigation and the parallel District Court action the same prior art combinations or any grounds that could have reasonably been raised on which trial is instituted. The most efficient course is for the Board to address the issues before it and the ITC to address only the issues that would remain. *See Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020) (precedential as to § II.A).

This factor weighs against discretionary denial.

5. Identity of the parties

Patent Owner is the plaintiff in the district court action and complainant in the ITC investigation. Petitioner is one of five defendants named in the district court action and one of several respondents in the ITC investigation. That fact, however, is also true of a great many patent owners and petitioners in IPR proceedings and is fully consistent with the purpose of IPRs providing a process for accused infringers to challenge patents being asserted against them in litigation. This factor should therefore not weigh to denying institution.

6. Other circumstances, including the merits

a. Patent Owner's compelling economic and public-health interests are unsupported conjecture

Patent Owner purports that significant commercial development, centering on EAGLE XG GLASS, which has won industry awards while benefiting from the attenuation of heavy metal use in the manufacture of glass articles, has value in weighing the question of discretionary denial. *See* Patent Owner's Discretionary Denial Brief, Paper 6 at Sec. VI.A.2.

None of those statements are supported by evidence and thus can be ignored as conjecture. More significantly, Patent Owner offered no evidence to tie to its commercial product development or, more importantly, the alleged commercial

success of that product to any invention(s) related to the '025 patent. It is well-settled that “[e]vidence of commercial success, or other secondary considerations, is only significant if there is a nexus between the claimed invention and the commercial success.” *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1311–12 (Fed. Cir. 2006).

Indeed, “if the commercial success is due to an unclaimed feature of the device, the commercial success is irrelevant.” *Ormco*, 463 F.3d at 1312. The same is true if the feature that gives rise to the commercial success was known in the prior art. *See J.T. Eaton & Co. v. Atl. Paste & Glue Co.*, 106 F.3d 1563, 1571 (Fed. Cir. 1997) (“[T]he asserted commercial success of the product must be due to the merits of the claimed invention beyond what was readily available in the prior art.”); *Richdel, Inc. v. Sunspool Corp.*, 714 F.2d 1573, 1580 (Fed.Cir.1983) (holding claims obvious despite purported showing of commercial success when patentee failed to show that “such commercial success as its marketed system enjoyed was due to anything disclosed in the patent in suit which was not readily available in the prior art”).

b. The merits of the petition are clear and strong

The prior art relied upon in the Petition demonstrate that all of the claims of the '025 Patent are unpatentable

The prosecution history shows that El Kahlout was applied in an obviousness rejection but overcome when the Applicant argued, and the Examiner agreed, that El Kahlout lacked limitations including:

- A housing enclosing the forming wedge, edge director, and plurality of rollers
- A replaceable heating cartridge with specific structural features
- A heat directing surface inclined at less than 90°
- Specific orientation and view factor relationships

EX1002 at 000022

CN '869, which was never considered during prosecution, specifically teaches the angled heat directing surface limitations that formed the basis for allowance . CN '869 describes heating surfaces with specific angular relationships and positioning for temperature compensation - precisely the features the Examiner found lacking in El Kahlout alone.

These teachings directly address the limitations that led to allowance over El Kahlout, creating a substantially different obviousness analysis than what the Office previously considered.

Patent Owner's limitation-by-limitation attack ignores that obviousness requires analyzing what the combined prior art would teach or suggest to a POSITA, not whether each limitation is expressly disclosed in identical terms. The Petition

properly explains how the combination of El Kahlout, CN '869, and Tsuda would render the claimed subject matter obvious.

c. The Expert Declaration Provides Proper Support

Patent Owner criticizes the Petition's reliance on the expert declaration, but expert testimony is expressly contemplated and encouraged in IPR proceedings. Mr. Tsugunobu's declaration provides detailed technical analysis explaining how the prior art combination would lead to the claimed invention, which is precisely the type of evidence needed to support obviousness challenges.

The fact that the Petition mirrors Mr. Tsugunobu's analysis—not the other way around, simply shows that the Petition is well-supported by Mr. Tsugunobu's analysis and should do nothing to diminish the weight that ought to be accorded to his testimony. Patent Owner's flawed argument provides no support for discretionary denial.

The declaration does not improperly "fill gaps" but rather explains how a POSITA would understand and apply the prior art teachings. This is a fundamental aspect of obviousness analysis.

d. The Prior Art Combination Is Well-Motivated

Patent Owner argues the Petition lacks adequate motivation to combine, but the references are all directed to glass forming apparatus with heating systems. The motivation to combine is clear: all three references address the same technical problems and would be known to POSITAs working in glass manufacturing. The Petition adequately explains why a POSITA would look to each reference and how they would be combined.

Patent Owner's arguments fail because, CN '869 directly teaches the angular limitations that formed the basis for allowance over El Kahlout, geometric equivalency makes Patent Owner's "horizontal plane vs. bottom surface" distinction meaningless when bottom is perpendicular to horizontal, material error occurred when Examiner allowed claims without considering CN '869's specific angular teachings that address the identified deficiencies, and CN '869 provides missing angular teachings while Tsuda provides replaceable aspect, together curing all identified deficiencies.

e. Patent Owner's assertion that there are five limitations missing from the independent claims analysis is wrong

First, regarding "Replaceable heating cartridge located in a port in the housing" Patent Owner applies an improperly literal claim reading. Tsuda teaches

replaceable external heater, and El Kahlout teaches housing structures . A POSITA would obviously modify El Kahlout's housing to accommodate Tsuda's replaceable heater concept, as both serve same glass manufacturing purpose. The declaration properly explains this obvious combination. See, e.g., EX1003, ¶¶60-65.

Second, regarding "Enclosure having heat directing surface inclined less than about 90°," Patent Owner mischaracterizes CN '869's angle teachings. CN '869 explicitly describes inclined heating surfaces with specific angular relationships. The angle being "relative to horizontal plane" vs "bottom surface" is an obvious equivalency that POSITA would understand. Patent Owner's hyper-technical distinction ignores substance of disclosure. See, e.g., EX1003, ¶¶ 69-72.

Third, regarding view factor and orientation limitations, Mr. Tsugunobu's declaration provides detailed technical analysis of view factors and orientations based on CN '869's angular disclosures. Patent Owner criticizes expert reliance but expert testimony is expressly permitted in IPR. The angles alpha and beta in CN '869 inherently establish view factor relationships that POSITA would recognize. See, e.g., EX1003, ¶ 79.

Fourth, regarding the positioning/shielding limitations CN '869 teaches "two heating apparatuses are placed at two ends of a lower portion of the glass forming

body." When combined with El Kahlout's edge director and roller configuration, POSITA would understand this creates thermal shielding effect. Patent Owner demands express disclosure but obviousness permits logical extensions of prior art teachings. See, e.g., EX1003, ¶¶ 80-81.

Fifth, regarding housing configurations, Patent Owner applies an inappropriately narrow reading. El Kahlout discloses housing structures, and POSITA would obviously adapt housing configurations to enclose different components based on system requirements. Housing serves same protective function regardless of specific contents. See, e.g., EX1003, ¶¶ 108-109.

Sixth, regarding the identified limitations purportedly missing from one or more dependent claims, those are discussed in detail in the expert Declaration supporting the Petition.

Specific angle ranges (45°-75°)

CN '869 provides foundation angles. The specific numerical ranges represent obvious optimization of disclosed angular relationships. Patent Owner provides no evidence these ranges were critical or non-obvious. The Expert Declaration properly explains optimization rationale based on prior art guidance. See, e.g., EX1003, ¶¶ 130-132.

Facet angle relationships (145°-175°)

CN '869's disclosed faceted surfaces and angular relationships. Patent Owner's "same optimization issues" criticism ignores that consistent optimization approach demonstrates obviousness rather than patentability. No teaching away or criticality shown to contrast the expert's opinion. See, e.g., EX1003, ¶¶ 135-136.

Curved surface limitations

Contrary to Patent Owner assertions, the expert Declaration provides reasoning for curved vs. faceted alternatives. Both serve same heating function with same technical purpose. POSITA would recognize curved surface as obvious design alternative to achieve equivalent results. See, e.g., EX1003, ¶¶ 137-139.

Elongated coil cross-section

Patent Owner's gap-filling critique ignores that heating element cross-sections are routine design variables. CN '869 teaches heating elements, and elongated cross-sections represent obvious efficiency optimization. Patent Owner provides no evidence of unexpected results or technical difficulties in doing so to contrast the expert's opinion. See, e.g., EX1003, ¶¶ 140-142.

Replacement during ribbon forming

Tsuda specifically teaches "replacement and repair are facilitated" for external heaters . Patent Owner's "conventional wisdom" argument lacks support - no evidence that replacement during operation was considered problematic. Expert properly explains continuous production benefits. See, e.g., EX1003, ¶¶ 92-96.

This factor should therefore weigh heavily against discretionary denial balancing out any of the other factors that may be neutral and/or favor denial. *See POSCO CO., Ltd., Id* (“consideration of the district court stay pending ITC investigation elevates the importance of factor four”).

III. THE DIRECTOR’S MEMORANDUM VIOLATES THE ADMINISTRATIVE PROCEDURES ACT

Petitioner respectfully submit that the Director’s Memorandum establishing the current process for discretionary denial review violates the Administrative Procedures Act (“APA”). *First*, the Director’s Memorandum represents binding agency policy and so should properly be promulgated through notice-and-comment rulemaking. *See Mendoza v. Perez*, 754 F.3d 1002, 1020 (D.C. Cir. 2014). *Second*, the Director’s Memorandum exceeds the Director’s statutory authority and/or violates the AIA (American Invents Act). Nothing in the AIA authorizes the Director to deny IPR petitions based on the factors referenced in the Director’s Memorandum.

Third, the factors and considerations identified in the Director’s Memorandum are arbitrary and capricious. Attempts to apply the *Fintiv* factors has led to unpredictable disparities among similarly situated IPR petitioners because of the uncertainty and malleability of those factors. The Director’s Memorandum worsens this problem by introducing several additional unpredictable and malleable factors. *Fourth*, discretionary denial for any basis other than as authorized in 35 U.S.C. §314(a) is unauthorized. The Director does not have absolute discretion regarding whether to institute IPR; that discretion is limited to the bases authorized in 35 U.S.C. §314.

IV. CONCLUSION

For at least the reasons above, the Board should decline to exercise its discretion in this case.

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Dated: September 15, 2025

CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. §42.24(d), the undersigned certifies that this Opposition includes 4566 words, as measured by Microsoft Word®.

/Daniel J. Pereira/

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CERTIFICATE OF SERVICE (37 C.F.R. § 42.6(e)(1))

The undersigned hereby certifies that the above document was served on, September 15, 2025, by filing this document through the Patent Trial and Appeal Board P-TACTS System, as well as delivering a copy via express mail upon the following attorneys of record for the Patent Owner:

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