

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TOPSOE, INC.,
Petitioner,

v.

CASALE SA,
Patent Owner.

Case No. IPR2025-01454

Patent 11,286,168

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

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I. INTRODUCTION

Petitioner Topsoe, Inc. f/k/a Haldor Topsoe Inc. (“Petitioner”) and Patent Owner Casale SA (“Patent Owner”) are sophisticated market competitors.

Discretionary denial is unwarranted. No concurrent validity litigation exists, and Petitioner’s *Sotera* stipulation prevents duplicative effort. The Petition’s non-cumulative art refutes the Examiner’s allowance rationale from both prosecution and reexamination, making institution essential to patent system integrity.

Patent Owner’s other arguments in its discretionary denial brief (“DDR”) are equally without merit. Its challenge to *2007 IFA*’s public accessibility is contradicted by the record. Its attempt to create a claim construction dispute over “furnace” fails because the art discloses the limitation under any interpretation. And its accusation of expert overreliance mischaracterizes proper testimony.

Multiple factors confirm that institution is an efficient use of PTAB resources. First, newly asserted art shows the ’168 Patent should not have issued, as it discloses the features the Examiner found missing from the art of record and relied upon for allowance. Second, as the first third-party validity challenge, PTAB review will provide a single, authoritative answer. Third, there are no settled expectations to displace. Accordingly, discretionary standards compel institution for a merits review on a complete record.

For these reasons and those that follow, Petitioner requests that the Director proceed to merits review and institute this IPR.

II. DISCRETIONARY DENIAL IS NOT WARRANTED

A. No Prior Adjudication Weighs Against Discretionary Denial

Patent Owner falsely asserts “the PTAB has already adjudicated the Patentability of the Challenged Claims of the ’168 Patent.” DDR at 5. But an Examiner’s allowance after a Patent Owner-initiated reexamination is not a prior invalidity adjudication by “the PTAB” under the Office’s March 26, 2025 Memorandum or the USPTO’s October 17, 2025 proposed modifications to the rules of practice for IPR proceedings before the PTAB (“Proposed Rules”).

Patent Owner cites no authority supporting the notion that Patent Owner-initiated reexamination is a prior adjudication. As an initial matter, reexaminations are *ex parte*, non-adversarial proceedings. *See, e.g.*, MPEP 2209 (explaining that reexamination is “similar to regular examination procedures in patent applications”). As such, a Patent Owner-initiated reexamination is not a prior adjudication of invalidity within the meaning of the March 26 Memorandum, as the Examiner is neither the PTAB nor “another forum.” *See, e.g., Hulu LLC v. Piranha Media Distribution LLC*, IPR2024-01252, Paper 27 at 2-3 (PTAB Apr. 17, 2025) (addressing prior invalidity determination by a district court).

This position is consistent with the Proposed Rules, which exempt Patent Owner-initiated reexaminations from barring IPRs because they are not meaningful validity challenges. *See* 90 Fed. Reg. 48341 (proposing change to 37 C.F.R. § 42.108(e)(5)).

Patent Owner also speculates that it would have submitted the Petition's prior art to the Examiner had it known of the art. DDR at 2-3. But Patent Owner had a duty to disclose an obligation it was reminded of during reexamination (EX1003 at 603), and nothing prohibited it from conducting a diligent search. Moreover, the record shows Patent Owner delayed submitting known relevant prior art for months and failed to disclose other key references. EX1003 at 1140-41, 1154, 1162, 1203-07.

Accordingly, the Examiner's allowance following Patent Owner-initiated reexamination does not favor discretionary denial.

B. The Petition Is Strong and Patent Owner's "Weak Merits" Arguments Are Misplaced

Patent Owner devotes much of its DDR to improperly arguing the merits of the Petition's grounds. *See* Interim Director Discretionary Process, available at <https://www.uspto.gov/patents/ptab/interim-director-discretionary-process> ("A patent owner should not treat a discretionary denial brief as an additional opportunity for merits briefing."). To the extent the Board considers Patent Owner's merits arguments as a discretionary issue, they only highlight the

presence of complex legal and factual issues that compel institution of inter partes review.

Patent Owner's merits challenge is unavailing, relying on misleading characterizations of the '168 Patent and the Petition.

1. The Petition shows that the asserted prior art discloses a “furnace” even under Patent Owner’s interpretation

While Petitioner met its obligations regarding claim construction, the argument Patent Owner raises regarding the term “furnace” is a merits issue not properly raised in discretionary briefing. *Id.* However, if the Director is willing to consider the argument at this stage, the ground presented in the petition address the ordinary meaning of the term “furnace” as well as Patent Owner’s narrow construction. Patent Owner’s complaints around the term “furnace” are irrelevant to the underlying patentability dispute.

First, Patent Owner's procedural arguments lack merit. Petitioner complied with the Board’s Trial Practice Guide, which permits stating that claim terms require no express construction, by stating “no formal claim constructions are necessary.” Consolidated Trial Practice Guide at 44.

Second, Patent Owner fails to overcome the presumption that “furnace” carries its plain and ordinary meaning. *See, e.g., Synopsis, Inc. v. Mentor Graphics Corp.*, IPR2012-00041, Paper 14 at 5 (PTAB Feb. 22, 2013). It argues it acted as its own lexicographer, defining “furnace” more narrowly than a POSA would

understand. DDR at 8-9. To act as its own lexicographer, a patentee must clearly set forth a definition of the disputed claim term other than its plain and ordinary meaning. *Thorner v. Sony Computer Ent. Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). The '168 Patent specification provides no such clear definition. While it states a “furnace” is an apparatus “chosen from among: a steam reformer or a charge preheater or a steam generator or a steam superheater,” (EX1001, 2:47-49), it also explains each is also “identified by the term ‘fired heater’ (*id.*, 2:50-51). It broadly describes “furnaces” functionally as operating “by means of combustion.” *Id.* It further explains that “furnaces” include apparatuses “for the production and/or superheating of steam” (*id.*, 7:41-43), which also include steam generators, and it describes apparatuses that operate by means of combustion such as gas turbines and gas engines for generating electricity (*id.* 7:44-53). There is no clear definition that supports Patent Owner’s deviation from the plain and ordinary meaning. *See Bright Data Ltd. v. Code200, UAB*, U.S. App. LEXIS 19312, at *10 (Fed. Cir. Aug. 1, 2025) (explaining that even language that “signals lexicography” is not always definitional and how the language is used in the full context of the specification must be examined).

Third, the term “furnace” does not need to be construed to assess the Petition’s unpatentability arguments. Under *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999), terms are construed only when necessary

to resolve the controversy. No such necessity exists here. Even under Patent Owner’s narrow definition (DDR at 9),¹ the Petition identifies prior art disclosing such furnaces. The Board routinely proceeds without express construction in such cases. *See Eve Energy Co., Ltd. v. Varta Microbattery GMBH*, IPR2021-00474, Paper 30 at 13 (PTAB Aug. 8, 2022) (“We agree that no claim terms require express construction for purposes of resolving the dispute between the parties”) (citing *Vivid Techs.*); *Pascal Techs. v. Cambridge Enterprise Ltd.*, IPR2024-1235, Paper 8 at 9-10 (PTAB Mar. 24, 2025) (finding that no terms require construction) (citing *Vivid Techs.*).

Specifically, the Petition shows that *2007 IFA* discloses a steam generator “(HRSG—Heat Recovery Steam Generator)” fired with the CO₂-depleted fuel fraction. Pet. at 17; EX1006 at 8-9; EX1005 ¶¶ 92-93. The Petition further demonstrates that *Rytter* supplies fuel “for the combustion of the hydrogen gas to steam” (*i.e.*, a steam generator) and to “heat-generating station(s)” and to the

¹ Petitioner does not concede Patent Owner’s narrow definition is correct. Limiting “furnace” to four pieces of equipment ignores that the purported “express definition” also describes the equipment functionally as operating “by means of combustion.” The specification describes use of CO₂-depleted synthesis gas in a gas turbine or gas engine—also equipment that operates by means of combustion.

reforming plant as fuel, which a skilled artisan understands to refer to fired-heater equipment—including steam-generation and reformer furnaces expressly identified in the “express definition.” Pet. at 22, 42; EX1008, 4:10-14, 4:55-57, 6:8-13, cl. 11; EX1005 ¶¶ 96-97, 142-43. Finally, while *Fjellhaug* describes a combined-cycle configuration in which a hydrogen-rich fraction is combusted for power, it also describes using the turbine’s combustion heat to generate steam in a steam generator and steam superheater. EX1005 ¶ 208; EX1010, 4:38-50 (“Exhaust 26 from the turbine 24 is heat exchanged with water in a **steam generator** 27 and the **steam therefrom may be superheated** [i.e., steam superheater] in a heat exchanger 30 before steam 31 is supplied to a power generator 32 to which the steam 10 may be supplied.”) (emphasis added). *Fjellhaug* also discloses a split-fuel implementation with a pre-reformer upstream of an ATR and no primary reformer. A skilled artisan would implement the disclosed fuel fraction in a steam-production or superheating furnace—again, equipment the “express definition” names. Pet. at 54-55; EX1010, 3:23-24, 3:59–4:3, 4:64-65; EX1005 ¶¶ 110, 127, 149-50, 208.

In short, construing “furnace” is unnecessary because the prior art meets even Patent Owner’s narrow reading. The argument is a merits issue, not a discretionary one, and the Petition has no procedural defect. Discretionary denial on this basis is unwarranted.

2. 2007 IFA printed-publication status: Adequate record for merits review

Patent Owner's only other "merits" argument is a challenge to *2007 IFA*'s prior-art status. DDR at 11-15. But Patent Owner does not contest the prior-art status of any other reference or meaningfully counter that *Rytter* and *Fjellhaug* each anticipate and/or render obvious every challenged claim. Thus, even setting aside *2007 IFA*, the Petition demonstrates a reasonable likelihood of success and warrants institution.

Patent Owner does not dispute that the Petition identifies evidence showing *2007 IFA* is a printed publication. As Patent Owner acknowledges, at institution the question is whether there is a "reasonable likelihood that it qualifies as a printed publication." DDR at 11–12 (quoting *Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29 at 13 (PTAB Dec. 20, 2019) (precedential)). Because public accessibility can be shown in "many ways," (*In re Hall*, 781 F.2d 897, 898–99 (Fed. Cir. 1986)), the inquiry turns on the "facts and circumstances" of the disclosure. *In re Klopfenstein*, 380 F.3d 1345, 1350 (Fed. Cir. 2004). The Petition's record meets that standard.

The Petition provides three independent, mutually reinforcing, lines of evidence showing public accessibility. *First*, *2007 IFA* was available on the IFA's searchable public website. Pet. at 6–7; EX1005 ¶¶ 83–88. *Second*, the Internet Archive's Wayback Machine confirms that, before the critical date, the IFA

webpage contained a download link for *2007 IFA*. Pet. at 7; EX1005 ¶ 88; EX1019. *Third*, a contemporaneous 2009 publication (Lako) cited and reproduced data from *2007 IFA*, and Lako itself was publicly available before the '168 Patent's effective filing date—corroborating 2007 IFA's public accessibility. Pet. at 7; EX1005 ¶¶ 89–91 (citing EX1020). This third-party citation and republication independently confirms that interested artisans could, and in fact did, locate and obtain the *2007 IFA* reference.²

Patent Owner challenges this evidence with rank speculation: that the archived download link might not have functioned; that Lako might have obtained 2007 IFA privately from its author (a Topsoe employee); or that Lako accessed only selected pages even though the entirety of *2007 IFA* reference was downloadable as a single document (as was the entirety of the proceedings from the conference). DDR at 11–15. None of these suppositions are supported by evidence. Beyond that, the printed-publication inquiry does not turn on the presenter's authorship or affiliation; it turns on whether the reference was

² While there is no requirement to show actual viewership by the public to establish public accessibility, Lako establishes that there has been actual viewership by the public. *Jazz Pharms., Inc. v. Amneal Pharm., LLC*, 895 F.3d 1347, 1356 (Fed. Cir. 2018).

accessible to interested members of the public. The record shows it was—via the IFA website and contemporaneous third-party use. Patent Owner’s conjecture cannot overcome Petitioner’s particularized, corroborated proof at this stage. *Hulu*, IPR2018-01039, Paper 29 at 13 (the petition need only provide evidence sufficient to establish a reasonable likelihood that the reference was publicly accessible before the critical date); *see also HTC Corp. v. Cellular Commc’ns Equip. LLC*, IPR2016-01503, Paper 7 at 16 (PTAB Feb. 13, 2017) (at institution, the question is whether there is sufficient evidence on the current record to show a reasonable likelihood of prevailing).

The Board should therefore institute: the Petition is reasonably likely to succeed independent of *2007 IFA*, and the evidence shows *2007 IFA* is a printed publication.

C. Expert Testimony Is Proper and Limited to Explaining the Art

Patent Owner alleges that the Petition is “overly reliant” on expert testimony. DDR at 15-16. As its evidence, Patent Owner claims the Petition cites to Dr. Ritter’s expert testimony 98 times, including 22 times to explain what “a POSA would have understood.” *Id.*

Contrary to Patent Owner’s argument, the Petition's use of expert testimony is entirely proper to establish the scope and content of the prior art and explain it

from a POSA's perspective. *See* Consolidated Trial Practice Guide at 36 (citing *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1297 (Fed. Cir. 2002)).

Here, the Petition did just that, properly using expert testimony to explain how a POSA would have understood the teachings of the prior art. For example, contrary to Patent Owner's contention, Petitioner properly relied on expert testimony in explaining the prior art's disclosure of the "first and second streams having the same composition wherein the first stream forms the fuel fraction and the second stream is process gas intended for the synthesis of ammonia" limitation in 1[c]-[d]. In particular, the Petition's explanation of the prior art's disclosure of this limitation is grounded in the teachings of the references themselves. For example, regarding *2007 IFA*, the Petition relies on Dr. Ritter's testimony to explain that a "POSA would have understood *from the figure* that the split in the stream represents a physical separation of the stream without changing the chemical composition of the stream such that the 'H₂ Fuel' stream and the stream directed towards the 'methanator' necessarily have the same composition *because, inter alia, the two streams are shown as branching from the same original stream without any intervening treatment step.*" Pet. at 16-17 (citing EX1005 ¶¶ 138-41).

Accordingly, Patent Owner identifies no instance where the Petition used expert testimony to fill gaps in the prior art. The Petition's proper reliance on

expert testimony to explain how a POSA would have understood the teachings of the prior art does not favor discretionary denial. *See iRhythm Technologies, Inc. v. Welch Allyn, Inc.* IPR2025-00363, Paper 10 at 2 (PTAB June 6, 2025) (rejecting argument “that discretionary denial is warranted because Petitioner is over-reliant on expert testimony” when “Patent Owner does not identify any portions of the expert testimony that suggest Petitioner is using its expert to fill gaps in the prior art.”); *Cambridge Indus. USA, Inc. v. Applied Optoelectronics, Inc.*, IPR2025-00434, Paper 11 at 2 (Director June 26, 2025) (referring the petition to the Board where Patent Owner failed to “identify any portions of the expert testimony that suggest Petitioner is using its expert to fill gaps in the prior art.”).

D. Parallel Litigation (*Fintiv*) Considerations Favor Institution

Patent Owner argues that a *Fintiv* analysis based on the district court inequitable conduct case “provides an independent basis to deny institution.” DDR at 16. Again, Patent Owner is wrong.

Fintiv does not apply because validity under 35 U.S.C. §§ 102 or 103 is not at issue in the district court litigation, which concerns only unfair competition and inequitable conduct. Patent Owner cites no case extending *Fintiv* to such circumstances. Doing so would also contradict the Proposed Rules, which limit *Fintiv* to parallel litigations where a trial on §§ 102/103 validity is likely before the final written decision. 90 Fed. Reg. 48341 (Proposed Rule 42.108(f)).

Even if *Fintiv* applied (it does not), the factors weigh against denial. No trial date is set in the district court case, and the district court has not construed the claims. DDR at 18. Patent Owner identifies no overlapping issues beyond the need to construe claims, and that has not been established as necessary, so there is no significant investment of resources on overlapping issues. Thus, the *Fintiv* factors strongly weigh against discretionary denial.

To eliminate any theoretical concerns of overlap, Topsoe hereby stipulates that, if this IPR is instituted, Topsoe will not pursue in any district court litigation or ITC proceeding any invalidity ground that was raised or reasonably could have been raised in this IPR. This *Sotera* stipulation resolves the issue and weighs strongly against discretionary denial.³

E. Efficient Use of PTAB Resources Supports Institution

Institution here promotes accuracy, efficiency, and uniformity. The Petition presents non-cumulative prior art, not seen by the Office, that directly contradicts

³ Patent Owner’s suggestion that Petitioner “sandbagged” the Office (DDR at 1) lacks support and is legally irrelevant to discretion where, as here, there is no parallel validity case, Petitioner has stipulated, if instituted, not to pursue district-court invalidity grounds, and the Petition presents new, non-cumulative art contradicting the stated reasons for allowance.

the Examiner's express reasons for allowance. Petitioner has properly sought review in the only expert forum that can correct this material error and has offered a *Sotera* stipulation to eliminate any theoretical overlap with the district court case, which is limited to unfair-competition and inequitable-conduct claims. This is precisely when PTAB review is most efficient. Patent Owner's remaining arguments are merit-based issues properly addressed by a merits panel.

The chronology demonstrates diligence, not gamesmanship. Following Patent Owner's reexamination, which resulted in amended claims and a new allowance rationale, the Petition promptly presented non-cumulative art that the Office never evaluated and that contradicts both allowance rationales. Pet. at 5-6. Petitioner has now correctly pursued the AIA mechanism designed for this exact posture: expert review at the PTAB on a complete prior art record.

Three additional considerations confirm that institution is a sound use of Board resources. *First*, new art (2007 IFA, Rytter, and Fjellhaug) shows the '168 Patent should never have issued, as each discloses features the Examiner found missing. *Second*, this is the first validity challenge, so PTAB review will provide a single, authoritative resolution. *Third*, no settled expectations exist to disrupt, given the patent's recent issuance and reexamination. These factors make institution the most efficient path to evaluate patentability on a correct prior-art record.

1. New art presented in the petition shows the '168 Patent should not have issued

It is undisputed that *2007 IFA*, *Rytter*, and *Fjellhaug*—the primary references relied on in the Petition—were never before the Office. Nor has Patent Owner argued these references are cumulative to the references before the Examiner. The Petition thus presents non-cumulative art that the Office did not evaluate.

During the original prosecution of the '168 Patent, the Examiner allowed the claims because he thought the prior art did not disclose “said first and second streams having the same composition.” Pet. at 5; EX1002 at 290, 314-25, 329. That was an express basis for allowance. However, following Patent Owner’s request for supplemental examination and institution of a reexamination, the Examiner found that the prior art disclosed each limitation, thereby revealing the Examiner’s prior determination was wrong. Pet. at 5; EX1003 at 587-88. The record thus already reflects a reversal of the Examiner’s initial allowance rationale.

During the reexamination, in response to Patent Owner’s claim amendment, the Examiner allowed the '168 patent based on the view that the prior art did not disclose “a conversion section including an autothermal reformer downstream from a pre-reformer and without a primary reformer therebetween.” Pet. at 6; EX1003 at 1184. However, as the Petition shows, this determination is likewise directly contradicted by the new art, as there are many references which were not before

the Examiner that disclose the claimed method, including the limitations relied on by the Examiner for allowance in both the original prosecution and the reexamination. Pet. at 6; EX1005 ¶¶ 45-49, 123-30. Together, these disclosures directly undercut the Examiner's stated reasons for allowance and demonstrate that the '168 Patent should have never issued.

In particular, as the Petition shows, *2007 IFA* discloses a first stream and second stream having the same composition, as it provides a figure showing two streams branching from the same original stream without any intervening treatment step. Pet. at 17; EX1006 at 9; EX1005 ¶¶ 138-41. That disclosure is the very feature the Examiner initially found missing. Likewise, *2007 IFA* shows a conversion section in which desulphurized natural gas, steam, and oxygen are converted into a syngas by a pre-reformer and autothermal reformer, and the conversion section does not include a primary reformer. Pet. at 13-14; EX1006 at 9. This squarely contradicts the reexamination allowance rationale.

As the Petition shows, *Rytter* also discloses first and second streams having the same composition, as it discloses a CO₂-depleted synthesis gas stream being split into at least two streams having the same composition. Pet. at 42; EX1008, 4:55-57; 4:10-14; 6:8-13; EX1005 ¶¶ 142-43. That disclosure likewise negates the Examiner's initial allowance basis. Likewise, *Rytter* discloses conversion of a charge of desulphurized natural gas and steam with oxygen into a synthesis gas

containing H₂, CO, and CO₂, with the conversion taking place in a conversion section including a pre-reformer followed by an ATR without a primary reformer. Pet. at 41; EX1008, 1:30-33; 3:64-67; 4:14-29; 5:26-28. That disclosure directly contradicts the reexamination allowance rationale.

Moreover, as the Petition shows, *Fjellhaug* similarly discloses separated first and second streams having the same composition by disclosing a split resulting in the second streams, used for ammonia synthesis, having the same composition as the line that feeds the first stream for use as fuel. Pet. at 54; EX1010, 4:64-65; EX1005 ¶¶ 149-50. Likewise, *Fjellhaug* discloses conversion of a charge of natural gas in a conversion section having a pre-reformer upstream of an ATR with no primary reformer therebetween. Pet. at 53; EX1010, 3:23-24, 3:59-4:3; EX1005 ¶ 127. That is directly contrary to the reexamination allowance rationale.

Any one of *2007 IFA*, *Rytter*, or *Fjellhaug* independently discloses the very features the Examiner identified as absent and relied on for allowance—both the “same composition” split and the prereformer-to-ATR conversion section without a primary reformer—demonstrating that the ’168 Patent should have never issued. On this record, referring the Petition to a merits panel to correct this is an efficient use of the Board’s resources.

2. The Petition is the first challenge to the validity of the '168 Patent

The Petition sets forth the first challenge, by any third party, to the validity under 35 U.S.C. §§ 102 or 103 of any challenged claim of the '168 Patent.⁴

Accordingly, there are no prior or pending proceedings by any third party asserting invalidity under 35 U.S.C. §§ 102 or 103 of any claim of the '168 patent, including other IPR proceedings, reexaminations, district court actions, or ITC proceedings.

These facts strongly support institution under the March 26 Memorandum, as neither the PTAB nor any other forum has adjudicated the validity of the challenged claims. In addition, these facts support institution under the Proposed Rules, as the validity of the challenged patent has not been previously adjudicated (*see* Proposed Rule 42.108(e)) and no decision in a parallel litigation adjudicating validity is likely to issue prior to the due date for the final written decision (*see* Proposed Rule 42.108(f)).

Accordingly, the Petition setting forth the first challenge to the validity of the '168 Patent complies with the Proposed Rules and strongly favors institution.

⁴ Topsoe filed a second IPR Petition, which is pending in IPR2025-01455. This Petition is ranked first as between Topsoe's two IPR petitions. Paper 2. Topsoe only seeks institution of one of its two Petitions. Accordingly, if this Petition is instituted, Topsoe stipulates to the non-institution of IPR2025-01455.

3. The absence of settled expectations favors institution

The recent issue date of the original patent, the lack of prior adjudication, and the recent Patent Owner-initiated reexamination all underscore a lack of any settled expectations. Patent Owner “has not developed strong settled expectations” that the ’168 Patent would not be challenged because the ’168 Patent has “not been in force for a significant period of time[.]” *Microsoft Corp. v. Edge Networking Sys., LLC*, IPR2025-00617, Paper 12 at 2 (PTAB July 31, 2025). In particular, the ’168 Patent issued on March 29, 2022, and the certificate from the Patent Owner-initiated reexamination issued on July 16, 2024. Topsoe’s IPR petition was filed on August 22, 2025, less than three and a half years after first issuance and just over a year after issuance of the reexamination certificate.

The Director has repeatedly found that patent owners do not have any settled expectations in such recently issued patents. *See Embody, Inc. v. Lifenet Health*, IPR2025-00248, Paper 13 at 2-3 (PTAB June 26, 2025) (“One of the challenged patents has not been in force for a significant period of time (issued in 2022) and the other patent is a parent of the first. Accordingly, Patent Owner has not developed strong settled expectations that favor discretionary denial as to the first patent, and it is an efficient use of Board resources to address the related patent.”); *Samsung Elecs. Co. v. Wilus Inst. of Standards & Tech. Inc.*, IPR2025-00935, Paper 12 at 2 (Sep. 26, 2025) (declining discretionary denial when “the challenged

patents have not been in force for a significant period of time (issued in 2021 and 2023), and, accordingly, Patent Owner has not developed strong settled expectations that favor discretionary denial as to these patents”).

Moreover, the settled expectations inquiry is measured from the July 16, 2024 date of the reexamination certificate, which further confirms the absence of any settled expectations for Patent Owner *See Carbyne, Inc. v. Tritech Software Sys.*, IPR2025-00959, Paper 11 at 2 (Director Oct. 3, 2025) (“[T]he challenged patent has not been in force for a significant period of time (reissued in 2024). Early challenges favor robust, predictable patent rights and weigh against discretionary denial.”); *see also Straumann USA, LLC v. Smart Denture Conversions, LLC*, IPR2025-00956, Paper 11 at 2 (Director Sept. 19, 2025) (no settled expectations for challenged patent that reissued in 2024).

Accordingly, the absence of any settled expectations for Patent Owner that the ’168 Patent would not be challenged counsels against discretionary denial and strongly favors institution.

III. CONCLUSION

For the foregoing reasons, discretionary denial is unwarranted. The petition presents a strong case on the merits, and institution is an efficient use of the Board’s resources. Topsoe respectfully requests that the Director institute this IPR.

Dated: December 1, 2025

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e)(4), the undersigned certifies that on December 1, 2025 a complete and entire copy of this Petitioner's Opposition to Patent Owner's Discretionary Denial Brief was served by electronic means on the counsel identified below:

Case Collard (collard.case@dorsey.com)

Dated: December 1, 2025

Respectfully submitted,

/s/ Robert Riddle

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