

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ZHUHAI COSMX BATTERY CO., LTD.,
Petitioner

v.

NINGDE AMPEREX TECHNOLOGY LTD.,
Patent Owner

IPR2026-00399
U.S. Patent No. 12,374,686

PATENT OWNER'S DISCRETIONARY DENIAL BRIEF

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35 U.S.C. § 325(d)	12, 16

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37 C.F.R. § 42.8(b)(1)	8
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TABLE OF EXHIBITS

Exhibit Number	Description
2001	Civil Action No. 2:26-cv-00139, the “Third Texas Litigation” Dismissal
2002	English Translation of Patent Wars Article, available at: https://page.om.qq.com/page/OZJYveYIG42m7AfudmyjOh6g0
2003	Listing of Zhuhai Huafa Group Co., Ltd. Management Team, available at: https://en.cnhuafag.com/about/team.html
2004	History of Zhuhai Huafa Group Co., Ltd., available at: https://en.cnhuafag.com/about/history.html
2005	Industrial Investment Sector, available at: https://en.cnhuafag.com/industry/54.html
2006	Application Proof for Zhuhai Kingsware Artificial Intelligence Co., Ltd., available at: https://www1.hkexnews.hk/app/sehk/2026/108812/documents/sehk26082102364.pdf
2007	Docket Navigator Report for U.S. Cases Involving Petitioner and Patent Owner (September 23, 2026)
2008	Darts IP Report for Global Cases Involving Petitioner and Patent Owner (May 6, 2025)
2009	English Translation of CosMX 2026 Semi Annual Report
2010	English Translation of CNIP Search Record for CN112331930A (Application No. CN2020112496431)
2011	Global Dossier Search Record for CN113270568A (Application No. CN2021105850464), available at: https://register.epo.org/documentView?number=CN.202110585046.A&documentId=2021105850464020220507102147595459_CN
2012	Global Dossier Search Record for CN113097435A (Application No. CN2021103479658), available at: https://register.epo.org/documentView?number=CN.202110347965.A&documentId=2021103479658020211224102145663588_CN
2013	English Translation of CosMX 2025 Semi Annual Report
2014	U.S. Patent Publication No. US 2018/0026298 A1 to Hasegawa et al. (“Hasegawa”)
2015	European Patent Office English Translation of Description and Claims of Japanese Patent Publication No. JP2016018654A to Seki et

Exhibit Number	Description
	al. (“Seki”) provided by Espacenet
2016	Reserved
2017	Reserved
2018	Reserved
2019	Reserved
2020	Reserved
2021	Reserved
2022	Chinese battery makers ATL, CosMX agree to settle global patent battle, MLEX (May 28, 2026), available at: https://www.mlex.com/mlex/articles/2482691/chinese-battery-makers-atl-cosmx-agree-to-settle-global-patent-battle

I. INTRODUCTION

Ningde Amperex Technology Ltd. (“ATL” or “Patent Owner”) requests that the Petition for *inter partes* review (Paper 1 or “Pet.”) filed by Petitioner Zhuhai CosMX Battery Co., Ltd. (“Petitioner” or “CosMX”) be discretionarily denied.

The Petition seeks *inter partes* review (“IPR”) of claims 1-5, 7, and 9-14 of U.S. Patent No. 12,374,686 (the “’686 Patent,” Ex. 1001). The ’686 Patent is one of six patents that Patent Owner asserted against Petitioner in a now dismissed district court action (Civil Action No. 2:26-cv-00139, the “Third Texas Litigation”). The Third Texas Litigation was dismissed after the Parties negotiated an agreement to dismiss and withdraw all existing lawsuits and invalidity challenges. Not only have the Parties reached an agreement that resulted in a dismissal of the underlying district court case, the Parties had been involved in extensive patent litigation over the past four years (and so Petitioner has been well aware of the existence of these patents and their family members for years), Petitioner failed to list all real parties-in-interest (“RPIs”) (including government entities), the pending IPRs will not resolve all disputes involving this patent, Petitioner has not filed any stipulation, and Petitioner’s products are not manufactured in the United States. The Director should therefore exercise its discretion to deny institution to reduce the burden on all involved and to signal that IPR is not a true alternative to litigation when it is filed after the Parties have resolved their disputes.

II. LEGAL STANDARDS

As indicated in the Acting Director’s March 26, 2025 Memorandum titled “Interim Processes for PTAB Workload Management” (hereafter “Director Memo”), there are a number of non-exhaustive additional factors that may be considered by the Director when evaluating how to apply the Director’s discretion under 35 U.S.C. § 314(b) (hereafter, the “Memo Factors”). Director Memo at 2-3. In addition, the Director issued a memo titled Additional Discretionary Institution Considerations — U.S. Manufacturing and Small Business Use of AIA Proceedings. This stated that the extent to which any products accused of infringement in a parallel proceeding are manufactured in the United States or are related to investments in American manufacturing operations will be considered by the Director.

III. ARGUMENT

A. The ’686 Patent Is No Longer at Issue in the District Court.

In June, the Third Texas Litigation, which included the ’686 Patent, was dismissed as a result of an agreement between the Parties. Ex. 2001. Continuing with an IPR under these circumstances would undercut the purpose of IPRs and would be an inefficient use of the IPR system. In fact, this is an opportunity for the Director to address such gamesmanship by confirming that it is a waste of public resources to proceed on IPRs after the Parties themselves have agreed to dismiss the lawsuits asserting infringement of the patents challenged in those IPRs.

The Parties are competitors and have been involved in litigation across the world dating back to at least January 2022. Over the past four years, this litigation has encompassed five U.S. district court actions, an appeal to the Federal Circuit, sixteen IPRs (including the currently pending proceedings), an ex parte reexamination (Reexamination No. 90/019,470), and numerous other litigation and invalidity challenges worldwide, including in Germany and China. Exs. 2007, 2008. Petitioner previously filed six IPR Petitions in 2023 and 2025 that were denied institution either on discretionary grounds or on the merits, and in 2026 dismissed four other IPR Petitions that were initially instituted, shortly after beginning oral arguments for those IPRs—all of which suggest denial is also appropriate here.

Despite the wide-ranging litigation across multiple different forums, in June 2026, the Parties entered into an agreement that resulted in the dismissal of all then-pending worldwide litigation, invalidity challenges, and IPRs. As a result of that agreement, the Third Texas Litigation, which included the patent challenged here, was dismissed without prejudice given the early stage of the proceedings and the wide-ranging resolution between the Parties. While the Third Texas Litigation was dismissed without prejudice given its early stage, it was done so as part of a negotiated agreement that resulted in the dismissal of all global litigation between the Parties. Starting a new wave of IPRs frustrates that global peace and can only be characterized as harassing given the posture between the Parties. Exs. 2001, 2022.

This is not the first time that IPRs would have been denied because a patent was no longer asserted in litigation, even when that underlying dismissal was without prejudice. *See, e.g., Google LLC v. Mullen Industries LLC*, IPR2025-00227, Paper 13 at 4 (PTAB June 25, 2025) (“it is an inefficient use of Board resources to review the ’540 patent that has been dismissed from the litigation.”); *Mullen Industries LLC v. Samsung Electronic Co., Ltd.*, Case No. 2:24-cv-00049, ECF No. 52 (E.D. Tex. Nov. 21, 2024) (dismissing claims of infringement of ’540 patent without prejudice); *SportRadar AG v. Sportscast Inc.*, IPR2025-00313, Paper 19 at 2 (PTAB July 16, 2025) (“Additionally, for IPR 2025-00313 and IPR2025-00315, the challenged claims are no longer asserted in the parallel litigation. Under these circumstances, it is an inefficient use of Board resources to review claims of a patent that are no longer being asserted in district court.”) (cleaned up).

Indeed, in *SportRadar*, Petitioner pointed out that even though Patent Owner had “stipulated that it will not pursue the currently challenged claims [of the challenged patent] in the district court litigation, this has been done arguably without prejudice. It is feasible that Patent Owner could attempt to assert these claims and future proceedings. Given that the statutory deadline for filing an IPR directed to the [challenged] patent has expired, Petitioner will not be able to access *inter partes* review of this patent in the future.” *SportRadar AG v. Sportscast Inc.*, IPR2025-00313, Paper 16 at 5-6 (PTAB June 18, 2025) (underlined emphasis added). Even

so, the Director held that IPR was an inefficient use of Board resources. *See id.* Here too, instituting review would be a waste of the Board's limited resources.

B. Petitioner Offers No Stipulation and Challenges Only a Subset of Claims, Increasing Risk of Duplicated Efforts

Petitioner has not offered any form of stipulation that would mitigate any risk of overlap between this case and any hypothetical future district court case. *See Phison Elecs. Corp. v. Vervain*, IPR2025-00213, Paper 14 at 3 (PTAB July 10, 2025) (finding even where “the challenged patents have not been in force for a significant period of time,” “[t]he absence of such a stipulation tips the balance in favor of discretionary denial”). Indeed, no stipulation has been entered addressing use of prior art alone or in combination with system art. This is particularly concerning where, as here, fewer than all claims of the patent are challenged in the Petition, so the risk of a hypothetical future district court needing to revisit the same issues raised in this IPR is amplified. Moreover, Petitioner has not offered a stipulation that it agrees with and will be bound by its assertion that “Petitioner does not believe any claim terms require specific construction and thus should receive their plain and ordinary meaning, in the context of the '686 patent specification, under Phillips.” *See, e.g., Revvo Techs., Inc. v. Cerebrum Sensor Techs., Inc.*, IPR2025-00632, Paper 20 at 3–5 (PTAB Nov. 3, 2025) (precedential). The lack of any stipulation further underscores the harassing and inefficient nature of these IPRs.

The scope of the Petition further confirms its harassing nature. Petitioner advances *nine* separate grounds of obviousness, drawing from six different prior art references in various two- and three-reference combinations, yet challenges only a subset of the patent's claims—omitting claims 6 and 8 entirely. Pet. at 2. The fact that institution, even if successful, would not resolve the question of patentability of all claims of the '686 Patent strongly favors discretionary denial because it would be an inefficient use of the Board's limited resources to institute IPR of fewer than all claims, guaranteeing that other claims could still be asserted in litigation. *See Chevron Oronite Co. v. Infineum USA L.P.*, IPR2018-00923, Paper 9 at 10-11 (PTAB Nov. 7, 2018) (informative).

C. Settled Expectations Favor Denial or Are at Least Neutral

Though the '686 Patent issued relatively recently, Petitioner certainly has been aware of it and the other patents owned by Patent Owner, including related patents, given the years of litigation between the Parties. There can be little doubt that Petitioner was aware of the patent challenged in this proceeding well before it filed its Petition. Petitioner has not denied such knowledge in its Petition.

The '686 Patent claims priority to International Application No. PCT/CN2020/087515, filed on April 28, 2020. Ex. 1001 at [63]. Given that the Parties are competitors that have been litigating worldwide since at least January 2022 over Patent Owner's battery-technology patent portfolio, Petitioner would

have had every reason to monitor this application and related applications. Indeed, the Chinese Patent Office identified CN111525194A to Petitioner as relevant prior art as part of its investigation of the patentability of three different CosMX patents, as early as July of 2021. Exs. 2010-2012. CN111525194A and PCT/CN2020/087515 share the same content and were filed on the same date. Accordingly, Petitioner has been aware of counterparts to the '686 Patent since at least August 2021. Further, Petitioner publicly identified as early as 2021 that it had received a letter from Patent Owner regarding 11 Chinese Patents suspected of infringement and noted a risk of future litigation. Ex. 2002.

Petitioner's longstanding awareness of Patent Owner's involvement in the same technology space also favors discretionary denial. *See Murata Mfg. Co., Ltd. v. Ga. Tech Research Corp.*, IPR2025-00383, Paper 14 at 2-3 (PTAB 2025).

The PGR window closed on April 29, 2026—approximately two months before the Parties reached agreement in June 2026. Petitioner, while simultaneously negotiating a resolution of all disputes, allowed this early-challenge window to lapse. This tactic of intentional delay should not be rewarded with institution. Instead, the Director should hold that parties demonstrably aware of a patent before its issue date should be encouraged to use early challenges to these patents, including challenges while the patents remain pending, or at least to use the PGR process shortly after the patent issues. *See iRhythm Technologies v. Welch Allyn Inc.*,

IPR2025-00377, Paper 10 at 3 (PTAB June 6, 2025) (“Petitioner’s awareness of Patent Owner’s applications and failure to seek early review of the patents favors denial and outweighs the above-discussed considerations.”).

Finally, the Parties’ global agreement created its own settled expectation that the current disputes over this patent and its family members had been resolved. Petitioner’s decision to disrupt this post-agreement equilibrium by filing new IPRs further compounds the prejudice to Patent Owner and independently favors denial.

D. Petitioner Fails to Identify all RPIs

A petition for *inter partes* review “may be considered only if . . . the petition identifies all real parties in interest.” 35 U.S.C. § 312(a)(2); see 37 C.F.R. § 42.8(b)(1). Petitioner fails to do so. *Tianma v. LG Display*, IPR2025-01579, Paper 12 at 5 (Director Mar. 18, 2026) (precedential). Petitioner lists seven¹ entities as RPIs but makes critical errors. *See* Pet. at 69. First, Petitioner fails to list at least Zhuhai Purida Investment Co., Ltd., which owns more than 10% of Petitioner. Second, Petitioner also fails to list Zhuhai Technology Venture Investment Co., Ltd. (hereinafter “Zhuhai Technology”). Last, Zejiang CosMX Battery Co., Ltd and

¹ Petitioner listed the entity “Chongqing CosMX Battery Co.” twice, but failed to list “Chongqing CosMX Power Battery Co.,” which was listed as an RPI for U.S. Patent No. 12,334,494 at issue in co-pending IPR2026-00402.

Zejiang CoxMX Power Supply Co., Ltd are the wrong names.

The 2026 Semi-Annual Report of Zhuhai CosMX Battery Co., Ltd., lists Zhuhai Purida Investment Co., Ltd. (hereinafter “Zhuhai Purida”) as holding 17.57% ownership. Ex. 2009 at 65, 197. Worse, Petitioner admits that Zhuhai Purida Investment Co., Ltd., “the ***controlling shareholder*** of the Company,” acts in concert with at least nine other unlisted entities. *Id.* But Zhuhai Purida does not just own more than 10% of Petitioner, its principal also controls Petitioner. Specifically, Yanming Xu is both Petitioner’s Chairman of the Board and General Manager, and also the Executive Director of Zhuhai Purida. Ex. 2009 at 66-67. There can be no doubt that unlisted Zhuhai Purida and Mr. Xu control Petitioner.

Furthermore, Zhuhai Purida has specifically committed to pay any compensation due to ATL due to any adverse judicial rulings against Petitioner, leaving no doubt that they are a true RPI and should have been listed. Ex. 2009 at 48-49. Petitioner identifies this commitment in their own public investor filings, leaving no excuse for their failure to identify Zhuhai Purida as an RPI here. *Id.*

This ownership, control, and interest required Petitioner to list Zhuhai Purida in its mandatory notices. *Tianma*, IPR2025-01579, Paper 12 at 8 n.6. Indeed, in PGR2026-00023, the Director denied institution when Petitioner’s majority owner, who had the ability to control the proceeding, was not listed as an RPI. *Viance, LLC v. Koppers Performance Chemicals Inc.*, PGR2026-00023, Paper 32 at 3 (Director

Aug. 19, 2026). The Director should also do so here.

Second, Petitioner fails to identify that it is owned and controlled by Zhuhai Technology. As is reported in the 2026 Semi-Annual Report, Zhuhai Technology is also listed as Petitioner's shareholder and is listed as "a state-owned corporation." Ex. 2009 at 66. Zhuhai Technology owns 1.37% of Petitioner. *Id.* at 65-66.

What's more, Hu Wang serves as a director on Petitioner's board. *Id.* at 33, 198. Prior to his appointment, Hu Wang served as Deputy General Manager of the Investment Business Department at Zhuhai Technology from July 2017 to September 2022. Ex. 2013 at 49. In September 2022, Hu Wang transitioned directly from Zhuhai Technology to Zhuhai Huajin Innovation Investment Co., Ltd., where he currently holds the title of Investment Director. *Id.* Zhuhai Huajin Innovation Investment Co., Ltd. is ultimately owned by Zhuhai Huajin Capital Co., Ltd. which is a controlled subsidiary of Zhuhai Huafa Group Co., Ltd., a major government enterprise. Ex. 2003 (identifying Jin Guo as the Director of Industrial Investment Sector of Huafa Group and as President of Zhuhai Huajin Capital Co., Ltd.); Ex. 2004 (explaining that Zhuhai Huafa Group is "a leading state-owned enterprise"), Ex. 2006 at N4. Zhuhai Technology is related to Zhuhai Huafa Group Co., Ltd. Ex. 2005 (indicating five platforms of investment including Zhuhai Science and Technology); *see also* Ex. 2006 at 111 ("Zhuhai Science and Technology is a limited partnership established under the laws of the PRC and managed by its general

partner, Zhuhai Kechuang, . . . [which] is a wholly-owned subsidiary of Zhuhai Technology Venture Investment Co., Ltd.* (珠海科技創業投資有限公司) (“Zhuhai Technology”), which is ultimately controlled by Guangdong Provincial Department of Finance and Zhuhai Municipal People’s Government State-owned Assets Supervision and Administration Commission.”); *see also* 110-111 (“Zhuhai Kechuang is owned as to 60% by Zhuhai HUAFA Group Co., Ltd.”). As such, Zhuhai Technology appears to be an unlisted government RPI that also has the ability to control Petitioner at least through Director Hu Wang. To the extent Petitioner disagrees with any details of the chain of ownership and control, it was Petitioner’s burden to identify RPIs, and it is plain that Hu Wang retains ability to control Petitioner on behalf of a government enterprise.

In view of this evidence, it is Petitioner’s burden to establish that it has complied with the statutory requirement to identify all real parties-in-interest.” *Zerto, Inc. v. EMC Corp.*, IPR2014-01254, Paper 35 at 7 (PTAB Mar. 3, 2015); *see also Yangtze Memory Technologies Co. v. Micron Technology, Inc.*, IPR2025-00098, Paper 38 at 7 (Director Jan. 15, 2026) (informative). Petitioner cannot do so.

Petitioner’s only recourse is amendment. Here, there is no reason to allow Petitioner to amend its listing of real parties in interest, especially given its failure to list Zhuhai Purida, which is glaring given their commitment to pay any judgment owed to Patent Owner. Regardless, Petitioner cannot amend to include proper RPIs

Zhuhai Technology and/or Zhuhai Huafa Group. *Tianma*, IPR2025-01579, Paper 12 at 5 (“bar[ring] a petition when a foreign government is an RPI of a petitioner.”).

E. The Petition Should Be Rejected Under § 325(d)

The Petition should also be denied institution because “the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d). Petitioner’s nine grounds rely on primary references Guo (Ex. 1011, CN 204809314) and Tao (Ex. 1007, US 2015/0207111), but Guo itself was already before the Office as was a relative of Tao.

1. Petitioner Presents Substantially the Same Art Previously Considered and Rejected

The first Advanced Bionics prong considers “whether the same or substantially the same art previously was presented to the Office.” *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential). Here there is no doubt that each of (1) Guo, (2) Tao’s Chinese counterpart, and (3) Kakinuma’s Japanese counterpart were already cited to the Office during prosecution of the ’686 Patent. Applicant filed four separate Information Disclosure Statements (IDSs) on March 21, 2022, September 18, 2023, November 26, 2024, and December 4, 2024—not merely the “two IDSs” that Petitioner describes. Pet. at 7; Ex. 1002 (2 of 4) at 0299-0302 (IDS filed March 21, 2022), 0381-0384 (IDS filed September 18, 2023); Ex. 1002 (3 of

4) at 0636 (Office Action indicating that the IDSs filed on March 21, 2022 and September 18, 2023 were considered by the Examiner); Ex. 1002 (4 of 4) at 0856-0858 (IDS filed November 26, 2024 signed by the Examiner), 0860-0862 (IDS filed December 4, 2024 signed by the Examiner). Guo itself was cited on the IDS filed on March 21, 2022, which was initialed by the Examiner as considered. Ex. 1002 (2 of 4) at 0299 (IDS citing Guo); Ex. 1002 (3 of 4) at 0636 (Office Action indicating that the IDS filed on March 21 was considered by the Examiner); Pet. at 7. Similarly, CN 203733894 U—a Chinese counterpart of Tao—was cited on the IDS filed November 26, 2024. Ex. 1002 (4 of 4) at 0856-0858 (IDS filed November 26, 2024 signed by the Examiner). JP 2018-18646—a Japanese counterpart of Kakinuma—was similarly cited on the November 26, 2024 IDS. Ex. 1002 (4 of 4) at 0856-0858. The Examiner signed the IDSs, thus the first prong of *Advanced Bionics* is met as to Guo, Tao, and Kakinuma. *Ecto World, LLC v. RAI Strategic Holdings, Inc.*, IPR2024-01280, Paper 13 at 3-4 (Director May 19, 2025) (precedential as to § A).

Additional reliance on Kusagawa (Ex. 1008) and Hu (Ex. 1005) does not allow Petitioner to avoid the first prong of *Advanced Bionics*. Two of the five grounds that rely on Guo, and all four grounds that rely on Tao, also rely on Kusagawa. In both the Guo and Tao grounds, Petitioner relies on Kusagawa as allegedly teaching a silicon-based material weight percentage (G) of less than or equal to 70%. *See e.g.*, Pet. at 52-53, 67.

The lead inventor of Kusagawa, Koichi Kusagawa, is listed as a co-inventor on US 2018/0026298 to Hasegawa et al. (“Hasegawa”), which was cited in the IDS filed on September 18, 2023 and considered by the Examiner. Ex. 1002 (2 of 4) at 0381 (IDS citing Hasegawa); Ex. 1002 (3 of 4) at 0636 (Office Action indicating that the IDSs filed on September 18, 2023 was considered by the Examiner). Hasegawa includes disclosure that is nearly identical to the portions of Kusagawa relied on by the Petitioner to obtain their calculated G value of 0.836%. Pet. at 52-53, 67; Ex. 1008 ¶¶ [0026], [0043]-[0044]. For example, like Kusagawa, Hasegawa describes a negative electrode plate in which negative electrode tabs are connected to each end of the negative electrode plate and the negative electrode active material includes both graphite and a silicon material. Ex. 2014 ¶¶ [0001], [0013], Figure 3. With respect to the preparation of the negative electrode active material for Example 1, Hasegawa states, “SiO was mixed with graphite such that the content of SiO was 5% by mass with respect to the sum of the masses of graphite and SiO.” *Id.* ¶ [0028]. The only difference between this disclosure of Hasegawa and the corresponding disclosure in Kusagawa (*see e.g.*, Pet. at 12, 52-53, 67; *see also* Ex. 1008 ¶ [0026]), is that Hasegawa recites 5% by mass with respect to the sum of the masses of graphite and SiO instead of 4%. However, Hasegawa clarifies that the content of the silicon material with respect to the sum of the masses of graphite and the silicon material can range from 4% to 20% (Ex. 2014 ¶¶ [0013], [0062], claims 8-10), and

in Hasegawa's Example 4 "the content of SiO was 4% by mass with respect to the sum of the masses of graphite and SiO." Ex. 2014 ¶ [0039]. Additionally, with respect to the preparation of negative electrode active material for Hasegawa's Example 8, Hasegawa describes that the SiO of Example 1 is replaced with a silicon-graphite composite in which "[t]he amount of silicon in this composite was 20.9 % by mass." *Id.* ¶¶ [0044]-[0045]. Petitioner relies on nearly identical disclosure in Kusagawa, which describes that the SiO of Example 1 is replaced with a silicon-graphite composite in which "[t]he amount of silicon in this composite was 20.9 % by mass." Pet. at 52-53; Ex. 1008 ¶¶ [0043]-[0044].

Regardless, both Kusagawa and Hu are repetitive of at least Hasegawa and Seki ("JP2016018654A") because Kusagawa (applied in Grounds 2A-D and 3) and Hu (applied in Grounds 1A-D) each are relied on only for an alleged amount of silicon used in a graphite-based negative electrode.² Pet. at 26, 5253, 67; Ex. 2014 ¶ [0028]; Ex. 2015 at 3. Thus, substantially similar art to Kusagawa and Hu (and the combinations presented herein) was previously presented to the Office.

2. Petitioner Has Not Shown, and Cannot Show, Material Error

Even when references are only cited in an IDS, a petitioner must "explain,

² But Hu's nano-SiO₂ particles, as explained below, cannot satisfy—or even meaningfully inform—the relationship required by formula (I).

with reference to Becton Dickinson factors (c), (e), and (f), how the Examiner erred in overlooking the prior art.” *Ecto World*, IPR2024-01280, Paper 13 at 5. Here, Petitioner does not allege **any** error by the Examiner. In fact, other than admitting that the Examiner only had “30 patents, patent applications, and literature documents (EX1002, 596-605) in two IDSs” to consider, which is a characterization that itself misstates the record (as Applicant filed four separate IDSs), Petitioner identifies no errors or omissions. Pet. at 7. Indeed, in the Office Action mailed September 23, 2024, the Examiner explicitly stated, “The instant claims are allowable over ***the prior art of record***, because the prior art is silent to: . . . $0.5 \geq D \geq 0.6 \times G$ formula (I) . . .” Ex. 1002 (3 of 4) at 0638-0639 (emphasis added). Here the Petitioner is relying on the same and/or substantially similar references to address formula (I).

In view of the targeted IDS filings and the Examiner’s comments, there is little doubt that the Examiner reviewed and found that the cited references did not disclose the recitations in the claims. Petitioner has identified no errors in this analysis and cannot rely on the grounds presented in the Petition instead of the required identification of an error. *Ecto World*, Paper 13 at 5-6. Accordingly, the Board should deny institution under § 325(d).

F. Heavy Reliance on Expert Testimony, Including to Fill Gaps in the Prior Art’s Teachings, Favors Denial

Petitioner relies heavily on expert argument, assumptions, and inferences to

fill in the gaps of the prior art. **None** of the prior art references disclose a negative electrode that satisfies the relationship of formula (I). Formula (I) is explicitly recited in the challenged claims because the silicon-based material has poor conductivity, which raises the negative electrode's operating temperature, while the tab position, which determines the conduction distance of current within the negative active material layer, offsets that temperature rise. Ex. 1001, 5:8-23.

Instead of identifying explicit teachings or suggestions in the prior art that would have led a POSITA to a relationship in which the temperature-rise cost of a silicon based material (G) is offset by compressing the conduction path of the current within the negative active material layer via the tab position (D), the Petition and Petitioner's expert assume—without substantiation—that a POSITA would universally seek to use trace amounts (less than 1 wt%) of silicon-based material in the negative active material layer of a negative electrode, regardless of the structure of the negative electrode or the composition of the negative active material layer. Pet. at 26, 52-53, 67. This assumption is not found in any of the references, is not supported by the references, and is contrary to the common knowledge of a POSITA.

For example, in Grounds 1A-D, the Petition argues “[a] POSA would have been motivated to use the amounts of silicon-based material disclosed in Hu as part of a negative active material layer in the battery disclosed in Guo” to produce a battery “with reduced direct current resistance and improved safety performance.”

Pet. at 26-27. Petitioner relies only on Dr. Zhu's testimony for this statement, and cannot point to any disclosure in Guo or Hu explaining that the *trace amounts of an inactive form of silicon (SiO₂) in the binder* of Hu's negative electrode active material would be usable in Guo's negative electrode, much less affect its direct current resistance or safety performance. *Id.*; Ex. 1003, ¶¶ 166-170. Indeed, the "silicon-containing material" in Hu constitutes nano-SiO₂ particles used in Hu's binder to improve the shear-stability of the binder. Hu ¶ [0019]. But Hu's nano-SiO₂ particles act as an electronic insulator that neither stores lithium nor conducts electricity and therefore cannot satisfy, or even inform, the relationship required by formula (I). Moreover, neither Petitioner nor Dr. Zhu address the fact that Hu's electrodes *require* multiple negative electrode tabs, while Guo explicitly uses a single negative electrode tab. *See e.g.*, Ex. 1005 ¶ [0022]; Ex. 1011 ¶ [0005].

With respect to Grounds 2A-D, Petitioner argues that although the primary reference, Tao, explicitly discloses that its goals were achieved using purely silicon-based or purely graphite-based electrodes, a POSA would look to Kusagawa for example silicon weight percentages in silicon-graphite composites because the composites "performed well". Pet. at 46; *see also* Ex. 1003 ¶¶ 348, 372-375. Petitioner only relies on the testimony of Dr. Zhu, but Dr. Zhu never provides any explanation about whether Kusagawa's disclosed silicon-graphite composites would be compatible with the structures of Tao's purely silicon-based or purely graphite-

based electrodes. *Id.* ¶¶ 376-378.

With respect to Ground 3, Petitioner argues that a POSA would combine Guo with the teachings of Kusagawa because Kusagawa “spells out explicitly the ‘production of negative electrode active material’”, and because “[the] POSA would have understood that this method was compatible with the structure of Guo’s anode sheet”. Pet. at 63; Ex. 1003 ¶ 513. Petitioner, however, relies only on expert testimony, to explain that Kusagawa’s negative electrode active material would be usable in Guo’s negative electrode. *Id.*; Ex. 1003 ¶¶ 513, 519-521, 559-566.

These gaps in the prior art are not filled by the references themselves but by speculative reasoning and hindsight reconstruction offered by Dr. Zhu, which are insufficient to establish a *prima facie* case of anticipation or obviousness.

G. Compelling Interests Favor Denial

The Director Memo also identifies “compelling economic, public health, or national security interests.” Patent Owner (which is a subsidiary of Japanese company TDK) provides a large percentage of the batteries used in smartphones, portable computers, and other portable electronics in the United States, including for large U.S. companies like Apple and Dell. It has an interest in protecting its U.S.-granted intellectual property from attacks by an adjudicated willful infringer. Patent Owner continuing to invest in its research and development as well as a continued willingness to supply the United States is a compelling reason for IPR denial.

Moreover, the March 11, 2026 Squires Memorandum directs the Office to consider, among other things, the extent to which products accused of infringement in a parallel proceeding are manufactured in the United States or are related to investments in American manufacturing operations. Memorandum, Additional Discretionary Institution Considerations—U.S. Manufacturing and Small Business Use of AIA. Proceedings at 2-3 (Mar. 11, 2026).

As outlined in the March 11, 2026 Director memorandum related to American manufacturing, the extent to which products accused of infringement in a parallel proceeding are manufactured in the United States or are related to investments in American manufacturing operations is to be considered when considering institution. Here, the formerly accused products are manufactured outside of the U.S. This is yet another reason why the Patent Trial and Appeal Board is not the most appropriate or efficient forum for this dispute.

IV. CONCLUSION

The circumstances of this case strongly favor discretionary denial. As such, Patent Owner respectfully submits that the Board deny institution of the Petition.

Dated: September 29, 2026

Respectfully submitted,

By: / Christopher TL Douglas /
Christopher TL Douglas, Reg. No. 56,950

CERTIFICATION UNDER 37 C.F.R. §42.24

I certify that this brief complies with the type-volume limits stated in the Interim Director Discretionary Process because it contains fewer than 20 pages.

Dated: September 29, 2026

By: / Christopher TL Douglas /
Christopher TL Douglas

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §42.6(e), the undersigned hereby certifies that true and correct copies of the foregoing **PATENT OWNER'S DISCRETIONARY DENIAL BRIEF and NINGDE AMPEREX TECH. EXHIBITS 2001-2015 and 2022** were served in their entirety on September 29, 2026 by filing this document through the PTAB's P-TACTS Filing System as well as delivering a true and correct copy by electronic mail on Petitioner's lead and backup counsel at the following email addresses (as agreed by counsel for Petitioner):

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