

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

NINGDE AMPEREX TECHNOLOGY
LIMITED,

Plaintiff,

v.

ZHUHAI COSMX BATTERY CO., LTD.,

Defendant.

Civil Action No.: 2:24-cv-0728-JRG

Honorable Judge Gilstrap

Jury Trial Demanded

**ZHUHAI COSMX BATTERY CO., LTD.'S
RESPONSIVE CLAIM CONSTRUCTION BRIEF**

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Exhibit	Description
A	U.S. 11,769,910 File History Excerpt
B	U.S. 11,575,148 File History Excerpt
C	U.S. Patent App. Pub. No. 2012/0228214 (Beard) filed in <i>Zhuhai CosMX Battery Co. v. Ningde Amperex Tech. Ltd.</i> , IPR2025-00432, Exhibit 1010 (PTAB Jan. 10, 2025)
D	U.S. Patent App. Pub. No. 2017/0162849 A1 (Murakami) filed in <i>Zhuhai CosMX Battery Co. v. Ningde Amperex Tech. Ltd.</i> , IPR2025-00432, Exhibit 1005 (PTAB Jan. 10, 2025)
E	Excerpt of Declaration of Dean R. Wheeler filed in <i>Zhuhai CosMX Battery Co., Ltd. v. Ningde Amperex Technology Limited</i> , IPR2025-00524, Exhibit 2015 (PTAB Aug. 5, 2025)

I. INTRODUCTION

The Court should adopt CosMX's positions for the six disputed terms that concern four patents-in-suit. ATL makes infringement-driven arguments that fail to adhere to the intrinsic record, including for terms whose scope is not reasonably certain and thus are invalid as indefinite.

Three terms render indefinite claims 14 and 15 of the '910 patent and all of the asserted claims of the '148 patent. *See* Sections III.B-III.D, *infra*. In arguing otherwise, ATL places stock in the fact that it submitted an expert declaration and CosMX did not. But "indefiniteness can be determined based solely on intrinsic evidence." *Cox Commc'ns, Inc. v. Sprint Commc'n Co.*, 838 F.3d 1224, 1228 (Fed. Cir. 2016); *see also* *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335, 1342 (Fed. Cir. 2015) ("Experts may be examined to explain terms of art, and the state of the art, at any given time, but they cannot be used to prove the proper or legal construction of any instrument of writing."); *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1370 n.6 (Fed. Cir. 2014) ("find[ing] it unnecessary to rely on" expert testimony; "Like the district court, we find the claims indefinite based on the claims, the written description, and the prosecution history."). Given that ATL's expert contradicts the intrinsic record, not only is ATL incorrect to call his testimony "unrebutted," Dkt. 118 at 1, but his testimony misses the relevant points and his opinion on an ultimate legal issue is not entitled to weight. The Court should hold all of these claims indefinite.

For the three remaining terms (concerning the '910, '131, and '118 patents), ATL again disregards the intrinsic evidence, which consistently compels CosMX's proposed constructions and precludes ATL's. *See* Sections III.A, III.E, III.F, *infra*. ATL even disregards the parties' agreed-upon definition for a related term that further reinforces ATL's errors. *See* Section III.A, *infra*. The Court should adopt CosMX's positions for these three terms.

II. LEGAL STANDARDS

A. General Principles of Claim Construction

The interpretation of claim language is a question of law. *Markman v. Westview Instr., Inc.*, 517 U.S. 370, 391 (1996). The words of a claim are given their ordinary and customary meaning as they would be understood by a person of ordinary skill in the art at the time of the invention (“POSA”). *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). Court should rely primarily on intrinsic evidence, *i.e.*, the claim language itself, the specification, and the prosecution history. *Id.* at 1315-17. The Court should look first to the “words of the claims themselves” and then to the specification, which “is always highly relevant” and can serve as the “single best guide to the meaning of a disputed term.” *Id.* at 1314-15.

Courts may rely on extrinsic evidence only when “the claim language remains genuinely ambiguous after consideration of the intrinsic evidence.” *Interactive Gift Exp., Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1332 (Fed. Cir. 2001). The Court should refuse to consider expert testimony when it contradicts the intrinsic evidence. *See, e.g., Rembrandt Patent Innovations, LLC v. Apple, Inc.*, 716 F. App’x 965, 971 (Fed. Cir. 2017) (affirming a district court’s disregard of expert testimony that contradicted the intrinsic evidence); *Kara Tech. Inc. v. Stamps.com Inc.*, 582 F.3d 1341, 1348 (Fed. Cir. 2009) (expert testimony cannot “overcome the plain language of the claims”). Dictionary definitions also may not contradict the intrinsic evidence. *Advanced Fiber Techs. (AFT) Trust v. J & L Fiber Servs., Inc.*, 674 F.3d 1365, 1374 (Fed. Cir. 2012) (finding erroneous a district court’s reliance on dictionary definitions that contradicted the intrinsic evidence).

B. Indefiniteness

Patent claims must “particularly point[] out and distinctly claim[] the subject matter which the applicant regards as [the] invention.” 35 U.S.C. § 112 ¶ 2. This definiteness requirement is

an issue of law. *See Teva Pharm.*, 789 F.3d at 1337. “[A] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014). The definiteness requirement ensures “clear notice of what is claimed, thereby apprising the public of what is still open to them.” *Id.* at 899. “Otherwise there would be a zone of uncertainty which enterprise and experimentation may enter only at the risk of infringing claims.” *Id.* at 909-10. Thus, “[t]he scope of claim language cannot depend solely on the unrestrained, subjective opinion of a particular individual purportedly practicing the invention.” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1350 (Fed. Cir. 2005) (“While beauty is in the eye of the beholder, a claim term, to be definite, requires an objective anchor.”).

C. Disavowal

“Disavowal can be effectuated by language in the specification or the prosecution history,” *Poly-Am., L.P. v. API Indus., Inc.*, 839 F.3d 1131, 1136 (Fed. Cir. 2016), which includes post-issuance statements by the patentee, such as in IPR proceedings. *Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1360 (Fed. Cir. 2017) (“[e]xtending the prosecution disclaimer doctrine to IPR proceedings”). “While disavowal must be clear and unequivocal, it need not be explicit.” *Poly-Am.*, 839 F.3d at 1136. The patentee can disavow claim scope “implicit[ly], so long as it is sufficiently clear”—for instance, where the disavowal is “clear, repetitive, and uniform.” *Rembrandt*, 716 F. App’x at 972 (collecting published cases articulating and applying the rule). Prosecution disavowal can arise in two distinct but related ways.

First, “an inventor may disavow claims lacking a particular feature when the specification describes ‘the present invention’ as having that feature.” *Poly-Am.*, 839 F.3d at 1136. That is, “[w]hen a patentee describes the features of the present invention as a whole, he alerts the reader

that this description limits the scope of the invention.” *Pacing Techs., LLC v. Garmin Int’l, Inc.*, 778 F.3d 1021, 1025 (Fed. Cir. 2015). And “[t]he public is entitled to take the patentee at his word.” *Honeywell Int’l, Inc. v. ITT Indus., Inc.*, 452 F.3d 1312, 1318 (Fed. Cir. 2006); *see also SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1342 (Fed. Cir. 2001) (“Where the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question.”).

Second, “an inventor may disavow claims lacking a particular feature when the specification distinguishes or disparages prior art based on the absence of that feature.” *Poly-Am.*, 839 F.3d at 1136; *see also On Demand Mach. Corp. v. Ingram Indus., Inc.*, 442 F.3d 1331, 1340 (Fed. Cir. 2006) (“[W]hen the scope of the invention is clearly stated in the specification, and is described as the advantage and distinction of the invention, it is not necessary to disavow explicitly a different scope.”).

III. DISPUTED CLAIM TERMS

- A. “a weight percentage of the dinitrile compound is X”/“a weight percentage of the trinitrile compound is Y” (’910 Patent: Claims 1, 4, 6, 12, 18-20, 22-25; ’131 Patent: Claims 1, 7, 14)

CosMX’s Construction	ATL’s Construction
a weight percentage of all dinitrile compounds present in the electrolyte is X	Plain and ordinary meaning

The fundamental dispute for the “X” and “Y” limitations is whether the claimed electrolyte can “include other dinitrile compounds or trinitrile compounds” beyond the types of compounds enumerated in the closed lists in the claims. *See* Dkt. 118 at 4. The answer is “no.” The plain language of the claims—and ATL’s *own agreement*—compel that no dinitriles or trinitriles other than those in the closed lists may be present in the electrolyte. Accordingly, as CosMX proposes,

“X”—the weight percentage of the dinitriles—must necessarily be calculated using “all dinitrile compounds present in the electrolyte,” which are limited to the closed lists, and no others (because no others can be present). The same is true for “Y”—the weight percentage of the trinitriles.

As relevant here, these claims recite an electrolyte comprising specific components (“a dinitrile compound, a trinitrile compound, and propyl propionate”), where one or more of these components has a specific “weight percentage” of the composition as a whole, and where one or more of these components (namely, the dinitrile and/or trinitrile compounds) is limited to recited options listed in the claims. *E.g.*, Dkt. 118-1 (the “’910 Patent”) at 34:17-38; Dkt. 118-2 (the “’131 Patent”) at 33:17-53. Such closed lists are known as “Markush group” claiming. *See Abbott Lab’s. v. Baxter Pharm. Products, Inc.*, 334 F.3d 1274, 1280 (Fed. Cir. 2003) (“A Markush group is a listing of specified alternatives of a group in a patent claim” and is a “closed” list.). For example, claim 1 of the ’910 patent recites a specific “weight percentage of the dinitrile compound” and a specific “weight percentage of the trinitrile compound,” and specifies that “the dinitrile compound is one or more compounds selected from the group consisting of butanedinitrile, adiponitrile, ...” and that “the trinitrile compound is one or more compounds selected from the group consisting of 1,3,5-hexanetricarbonitrile; 1,2,3-hexanetricarbonitrile....” The ’131 patent claims are similar, but recite a closed list only for trinitriles.¹

By the plain claim language, the closed Markush groups limit the claimed electrolytes to electrolytes that contain one or more of the enumerated types—and no others. Accordingly, the parties agree that the term “is selected from the group consisting of ... and any combination

¹ The parties agree this difference is irrelevant for purposes of addressing the dispute. *See* Dkt. 118 at 7 n.2 (agreeing that the ’131 patent claims “do[] not limit the identity of the dinitrile compounds”). For simplicity, unless otherwise noted, this brief collectively refers to Markush groups for the dinitrile and trinitrile compounds, even though the dinitrile Markush group applies only to the ’910 patent claims.

thereof” means “[t]he dinitrile/trinitrile compounds *in the electrolyte* consist of *only the named compounds and no others*.” Dkt. 82 at 1.² As this agreement makes clear, the “wherein” Markush groups that enumerate types of dinitrile or trinitrile compounds refer back to the “electrolyte.” *Id.*

Thus, not only are the “X” and “Y” weight percentage measurements limited “to the specific dinitrile or trinitrile compounds *enumerated* in the claims (i.e., the various Markush groups of the ’910 and ’131 patent claims),” Dkt. 118 at 4, but so too the electrolyte itself. Simply put, the claimed scope of “the dinitrile compound” and “trinitrile compound” for the “weight percentage” measurements and for the electrolyte itself are one and the same. Each is limited to the Markush groups.

The specification reinforces this. Using the ’910 patent specification as exemplary, it consistently describes “the dinitrile compound” and “the trinitrile compound” for purposes of a claimed electrolyte. *See* ’910 Patent at Abstract, 1:46-48, 1:64-2:24 (Summary), 6:1-8:33 (describing “Electrolyte” including embodiments in which “the dinitrile compound according to the present application” is from an enumerated list and embodiments in which “the trinitrile compound according to the present application” is from an enumerated list), 26:40-33:27 (examples using specific dinitrile or trinitrile compounds in the electrolyte); *accord* ’131 Patent at Abstract, 1:45-47 (Summary), 1:63-65 (same), 6:1-8:27, 26:17-33:28. The prosecution history is further confirmation. The Examiner repeatedly found that prior art disclosures of electrolytes with dinitrile or trinitrile compounds from the enumerated lists of the claims met at least the electrolyte portion of the claims, and ATL did not dispute this. Ex. A, ’910 Patent File History at ATL-EDTX728-0001777-79 (3/3/23 Non-Final Rejection), ATL-EDTX728-0001749 (4/10/23 Applicant Arguments/Response), ATL-EDTX728-0001676-84 (4/20/23 Non-Final Rejection),

² Throughout this brief, all emphasis is added unless otherwise noted.

ATL-EDTX728-0001687 (same), ATL-EDTX728-0001523-24 (7/18/23 Interview), ATL-EDTX728-0001552 (7/20/23 Applicant Arguments/Response).

Given the clear and dispositive intrinsic evidence, ATL is wrong to argue that *other* dinitrile or trinitrile compounds “may nonetheless be present in the electrolyte” so long as they are not included in the “weight percentage” calculations of “X” or “Y.” Dkt. 118 at 4. As shown, and as the parties agree, the plain language of the claim forecloses that. All dinitrile or trinitrile compounds in the covered electrolyte must be from the Markush groups; no other dinitrile or trinitrile compounds may be present in the electrolyte. Therefore, in applying the claims, one does not even get to the weight percentage calculations unless the electrolyte itself is so limited. That is, if an electrolyte contains *other*, non-claimed dinitrile or trinitrile compounds, it is outside the scope of the Markush group and thus outside the scope of the claims. The claimed electrolyte contains only specific dinitrile and trinitrile compounds expressly recited in the Markush groups; there can be no other dinitrile or trinitrile compounds in the electrolyte, full stop. Accordingly, for the “X” and “Y” limitations of the *claimed* “electrolyte”—i.e., an electrolyte that contains *only* the dinitrile and trinitrile compounds enumerated in the claims—CosMX correctly proposes that the measurements apply to “all dinitrile compounds present in the electrolyte” (for “X”) and “all trinitrile compounds present in the electrolyte” (for “Y”).

ATL can find nothing in the intrinsic record to support its view that “other dinitrile or trinitrile compounds” can be included in the electrolyte even if not used for calculating “X” and “Y.”³ Dkt. 118 at 4. Nor does ATL grapple with its flat contradiction of the parties’ agreed-upon

³ Much of ATL’s brief belabors the agreed-upon point that the “weight percentage” measurements are limited to the Markush groups, but ATL misses the point. *See* Dkt. 118 at 5-8. The issue is ATL’s cursory and erroneous suggestion elsewhere that the closed lists do not apply to the electrolyte itself. *See id.* at 4 (asserting, but without support, that “other dinitrile or trinitrile compounds” may “nonetheless be present in the electrolyte”).

construction for the Markush group terms. *See* Dkt. 82 at 1. ATL’s proposal is also wrong given that a term should carry the same meaning throughout the claim. *See Phonometrics, Inc. v. N. Telecom Inc.*, 133 F.3d 1459, 1465 (Fed. Cir. 1998) (“A word or phrase used consistently throughout a claim should be interpreted consistently.”). ATL would give different meanings for “the dinitrile compound” and “the trinitrile compound” within the same claim. ATL’s position is a naked attempt to disregard claim language in order to expand claim scope beyond the Markush group terms and use “plain and ordinary meaning” to invite an erroneous infringement argument.

In short, it is undisputed that all dinitrile compounds present in the claimed electrolyte of the ’910 patent must be among the types listed, and that all trinitrile compounds present in the claimed electrolyte of the ’910 and ’131 patent claims must be among the types listed. *See* Dkt. 82 at 1 (“The dinitrile/trinitrile compounds in the electrolyte consist of only the named compounds and no others.”). Thus, for the “X” and “Y” terms, it necessarily follows that, a covered electrolyte measures “all dinitrile compounds present in the electrolyte” and “all trinitrile compounds present in the electrolyte,” as CosMX proposes. The Court should adopt CosMX’s construction and—as important—reject ATL’s incorrect “plain and ordinary meaning” of these terms.

B. “only a single-sided coating or a double-sided coating present on the same electrode” (’910 Patent: Claim 14)

CosMX’s Construction	ATL’s Construction
Indefinite	Plain and ordinary meaning; judicially corrected to “only a single-sided coating or a double-sided coating is present on the same electrode”

Claim 14 of the ’910 patent is indefinite because, even if corrected as ATL proposes, the term “only a single-sided coating or a double-sided coating [is] present on the same electrode” lacks antecedent basis. Critically, claim 13, from which claim 14 depends, recites a *single* electrode that must have *both* a single-sided and a double-sided coating. In relevant part, claim

13, which in turn depends from independent claim 12, recites: “The electrochemical device according to claim 12, wherein *the electrode* comprises a cathode, *the cathode* comprises a current collector, a single-sided coating *and* a double-sided coating....” ’910 Patent, claim 13 (emphases added). Claim 14, however, requires an electrode that has *only* a single-sided or *only* a double-sided coating. There is no antecedent basis for such an electrode in claim 13.

Knowing this, ATL attempts to reach back to claim 12 in order to find an antecedent basis, citing claim 12’s reference to “electrodes” as supposedly the “plural nature of the antecedent basis for ‘the electrode’” in claims 13 and 14. Dkt. 118 at 9. But whether claim 12 is broad enough to encompass multiple electrodes is irrelevant. Claim 14 depends from claim 13, and claim 13 unambiguously concerns only a single electrode (“the electrode”), as even ATL admits. Dkt. 118 at 9 (“A POSITA...would realize that claim 13 speaks to *one* of the many possible electrodes that may exist...”). Claim 14 therefore *further limits* that single electrode in claim 13 and thus is likewise limited to a single electrode. *See* 35 U.S.C. § 112(d) (“[A] claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed.”). If the inventors had wanted claim 14 to depend from claim 12’s multiple electrodes, they could have done so. But they did not.

ATL’s contention that claim 13’s use of “a cathode” means that it comprises “one or more” electrodes is also unavailing. *See* Dkt. 118 at 9-10. The term “a cathode” provides the antecedent bases for claim 13’s later use of “the cathode,” which, as discussed, must have *both* “a single-sided coating and a double-sided coating.” The term “a cathode” does not and could not expand the number of electrodes claimed.

Moreover, claim 14 does not even purport to define an additional electrode by claiming, for example, “a second electrode” (which would still lack antecedent basis). Instead, claim 14

refers to only “the same electrode.” “[T]he cathode” as recited in claim 13 is the only possible antecedent basis for “the same electrode.” It is also clear that claim 14 is intended to find its antecedent basis for the coating terms in claim 13, which is further confirmation that claim 14 concerns the same, single electrode at issue in claim 13 (and not anything in claim 12). For instance, claim 14 purports to place additional limitations relating to “the single-sided coating” and “the double-sided coating,” but the only “single-sided coating” and “double-sided coating” that can provide antecedent basis are those recited in claim 13, which are defined in reference to only a single electrode (cathode). Claim 12, by contrast, does not recite *any* coatings.

ATL’s extensive discussions of the ’910 specification’s disclosure of wound-type and laminated battery structures do not salvage this claim. *See* Dkt. 118 at 10-12. It is irrelevant that the specification discloses an embodiment that has only a single-sided *or* a double-sided coating on the same electrode. Claim 13, and therefore claim 14, does not claim such an embodiment. Neither a given claim nor even all claims collectively must necessarily be read to cover all possible embodiments; Federal Circuit “precedent is replete with examples of subject matter that is included in the specification, but is not claimed.” *TIP Sys., LLC v. Phillips & Brooks/Gladwin, Inc.*, 529 F.3d 1364, 1373 (Fed. Cir. 2008) (“to construe the claim term to encompass the alternative embodiment in this case would contradict the language of the claims”); *see also SIMO Holdings Inc. v. Hong Kong uCloudlink Network Tech. Ltd.*, 983 F.3d 1367, 1380 (Fed. Cir. 2021) (declining to extend claim language to cover alternative disclosed embodiments). Had the inventors wanted to claim a laminated-type embodiment they could have done so.⁴

⁴ Nor does the specification’s reference to combining wound and laminated electrodes change the outcome. *See* Dkt. 118 at 12. The specification does not explain how such an alleged combination could exist, and it is telling that ATL’s attorney speculation (Dkt. 118 at 10 n.3) is unsupported by its expert’s declaration. Regardless, such a combination still would require, per

ATL invokes its expert declaration, but it may not use its expert to rewrite claim 14 to save it from indefiniteness. *Storage Tech. Corp., v. Cisco Sys., Inc.*, 329 F.3d 823, 832 (Fed. Cir. 2003) (district court erred in relying on expert declaration to change claim scope based on the purpose of the invention); *Allen Eng'g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1349 (Fed. Cir. 2002) (“It is not our function to rewrite claims to preserve their validity....”); *Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345-1346 (Fed. Cir. 1999) (in a misguided attempt to preserve claim validity, district court erred in construing a claim to include “at least two light sources” where the claim recited “at least one light source”). Likewise, a court may not rely on extrinsic evidence where, as here, it is inconsistent with the intrinsic record. *See, e.g., Sequoia Tech., LLC v. Dell, Inc.*, 66 F.4th 1317, 1324 (Fed. Cir. 2023) (finding “district court clearly erred in considering [] expert testimony [that] was inconsistent with the intrinsic evidence”); *Transperfect Global, Inc. v. Matal*, 703 F. App'x 953, 962 (Fed. Cir. 2017) (agreeing that “expert testimony does not overcome the intrinsic evidence contained in the claim language, specification, and prosecution history”). “Resort to extrinsic evidence is appropriate only when an ambiguity remains after consulting the intrinsic evidence of record.” *Storage Tech.*, 329 F.3d at 832.⁵

The term is indefinite in the intrinsic record, and the Court may not credit ATL's inconsistent expert testimony. This claim term is indefinite for lack of antecedent basis.

the specification, multiple electrodes to satisfy the disputed language in claim 14, yet claim 13 concerns only a single electrode.

⁵ ATL's citation to *Linear Technology Corp. v. Impala Linear Corp.*, 379 F.3d 1311 (Fed. Cir. 2004) appears to be error; the language ATL quotes is not in that decision. *See* Dkt. 118 at 9. And the only instance CosMX has located of the Federal Circuit using similar language concerned whether a claim “recite[s] sufficiently definite structure or was intended to invoke § 112 ¶ 6,” *see Dyfan, LLC v. Target Corp.*, 28 F.4th 1360, 1365-66 (Fed. Cir. 2022), which has nothing to do with whether a claim has sufficient antecedent basis.

C. “wherein the electrode comprises an anode” (’910 Patent: Claim 15)

CosMX’s Construction	ATL’s Construction
Indefinite	Plain and ordinary meaning; judicially corrected to depend from claim 12, not claim 13

In proposing to correct claim 15, ATL tacitly admits that, as issued, claim 15 is indefinite for lack of antecedent basis because it depends from the electrochemical device of claim 13. Claim 15 recites “wherein the electrode comprises an anode,” but the electrode in claim 13 “comprises a cathode.” The Court should hold claim 15 indefinite.

Contrary to ATL’s argument, judicial correction is not available to avoid this result. What ATL seeks is not to have the Court correct an error that is “minor, obvious, free from reasonable debate or evident from the prosecution history,” like a missing comma; it seeks to have the Court remedy claim 15’s lack of antecedent basis by *changing the claim dependency*, and therefore changing the scope of the claim. That is not a harmless error, and such judicial corrections are improper. *See Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331, 1339-40 (Fed. Cir. 2011) (rejecting request to “substantively re-draft [the] claims” and refusing to judicially correct a claim to provide antecedent basis for dependent claims). The Federal Circuit “repeatedly and consistently has recognized that courts may not redraft claims, whether to make them operable or to sustain their validity.” *Id.* at 1339 (citation omitted); *see also* Section III.C, *supra* (court may not re-draft claims to sustain validity, even in view of an expert declaration if that is inconsistent with the intrinsic record).

In any event, ATL’s proposed correction cannot be made because it does not meet the specific requirements for judicial correction, and in particular the requirement that the correction not be subject to reasonable debate. For judicial correction to apply, it is not enough that “the error is evident from the face of the patent.” *Group One, Ltd. v. Hallmark Cards, Inc.*, 407 F.3d 1297,

1303 (Fed. Cir. 2005). Two additional requirements must be met: “(1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification and (2) the prosecution history does not suggest a different interpretation of the claims.” *Novo Indus., L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1357 (Fed. Cir. 2003). Here, ATL’s purported correction is subject to reasonable debate.

For example, instead of ATL’s proposal to change claim dependency, claim 15 might be corrected to claim a second “cathode” with a different compaction density range in lieu of the currently recited “anode.” Nothing in the specification or prosecution history concerning the claimed compaction density ranges forecloses this. While the specification associates the ranges recited in claim 13 and 15 with cathodes and anodes, respectively, that is only “[i]n some embodiments.” ’910 Patent at 22:1-10. Neither the specification nor the prosecution history clearly and unequivocally disclaim embodiments with compaction densities falling into other ranges. And although ATL references the fact that anodes and cathodes may be made of different materials (Dkt. 118 at 14), neither ATL nor its expert’s conclusory testimony explains why those different materials would foreclose a cathode having a compaction density within the range claimed in claim 15.

Indeed, by ATL’s own argument, its proposed correction for claim 15 is subject to reasonable debate. Although the compaction density range recited in claim 15 is mutually exclusive from the compaction density range cited in claim 13, ATL argues elsewhere that claim 14 (also dependent on claim 13) is not indefinite because it reaches back to the “plural nature of the antecedent basis for ‘the electrode’” in independent claim 12 such that claim 14 could be referring to a *second cathode*. Dkt. 118 at 9. ATL cannot have its cake and eat it, too. If claim 14 could reasonably be read to claim a second cathode not specifically recited in claim 13 in order

to rationalize a mutually exclusive claim limitation, so too can claim 15.

ATL's argument that a POSA would necessarily recognize that claim 15 was meant to be a sister term to claim 13, rather than depend from claim 13, is likewise unsupported by the intrinsic evidence. *See* Dkt. 118 at 14. Nothing compels a patentee to draft "sister terms" that encompass all of the possible embodiments covered by an independent claim. And there are no other such "sister terms" evident in the claims of the '910 patent. Indeed, claim 14 depends from claim 13; if claim 15 were intended to be a sister term to claim 13, one might also expect a sister term to claim 14 to depend from claim 15. But there is none.

Finally, ATL has no basis to invoke CosMX's IPR petition that mapped prior art to the claims as purported support for its proposed correction and avoiding indefiniteness. *See* Dkt. 118 at 15. The Federal Circuit has held that the PTAB "may not cancel claims for indefiniteness in an IPR proceeding." *Samsung Elecs. Am., Inc. v. Prisia Eng'g Corp.*, 948 F.3d 1342, 1350 (Fed. Cir. 2020). But such claims can still be challenged before the PTAB as invalid in light of prior art. "Importantly, it is not always impossible to adjudicate a prior-art challenge, one way or the other, just because some aspect of a claim renders the claim indefinite." *Intel Corp. v. Qualcomm Inc.*, 21 F.4th 801, 813 (Fed. Cir. 2021); *see also Nichia Corp. v. DSS, Inc.*, No. 22-1704, 2023 WL 7211097, at *3 (Fed. Cir. Nov. 2, 2023) ("[W]e have held the Board can render prior art patentability determinations even if claims are indefinite."). And even when an IPR reaches a final written decision for estoppel to attach, the petitioner is not estopped from challenging claims as indefinite in district court.⁶ *Samsung Elecs.*, 948 F.3d at 1353 n.3. CosMX's IPR attempt to map prior art to the claims has no relevance to their indefiniteness.

⁶ Here, estoppel does not attach because institution of CosMX's IPR petition for the '910 patent was denied by the Director.

In the end, the Court “must take the claim as [it] find[s] it.” *Arlington Indus., Inc. v. Bridgeport Fittings, Inc.*, 345 F.3d 1318, 1331 n.1 (Fed. Cir. 2003) (refusing to change alleged typographical error introduced by the Patent Office). “The Federal Circuit’s standard does not ask the Court to decide which proposed construction is most plausible. Rather the standard only asks the Court to decide if reasonable debate exists based on the claim language and the specification.” *Parthenon Unified Memory Architecture LLC v. Apple Inc.*, No. 2:15-CV-00621-JRG-RSP, 2016 WL 3365945, at *13 (E.D. Tex. June 17, 2016). ATL’s recourse, if any, is to seek a Certificate of Correction in the Patent Office, where the Examiner would undertake a substantive review and develop the prosecution record—inquiries not available here. The Court may not guess at what the applicants intended. *See id.* (“The proper method of addressing this alleged error would be to seek a Certificate of Correction.”); *Group One*, 407 F.3d at 1303 (It is “beyond the district court’s authority to guess at what was intended,” and “the error, if any, could only be corrected by the PTO.” (discussing *Novo Industries*)). This claim term is indefinite for lack of antecedent basis.

D. “the pores at least comprises a part of the inorganic particles” (Patent ’148: Claims 1, 10)

CosMX’s Construction	ATL’s Construction
Indefinite	Plain and ordinary meaning with the correction of “comprises” to “comprise.”

This term is indefinite, as the intrinsic record establishes. ATL contends that a correction of the verb tense solves the problem, but that is wrong. Even assuming a “correction” of “comprises” to “comprise” (which lacks basis, as CosMX discusses further down), the term lacks reasonable certainty as to its scope. *See Nautilus*, 572 U.S. at 910 (Definiteness under § 112 “require that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.”).

A “pore” has empty space and a wall. And porous film of the type at issue contains

thousands and thousands of pores. At issue, therefore, is the meaning and scope of “the pores” that are claimed. The intrinsic record does not answer this, rendering the claims indefinite.

The claims state that “the pores” are “formed by the binder” and contain at least “a part of the inorganic particles.” *E.g.*, Dkt. 118-3 (the “’148 Patent”) at 25:33-38. But it is unclear—and unsolvable in the intrinsic record—whether it is enough that just a single pore, or even a pair of pores, contains inorganic particles, or if more of “the pores” are required, and if so, how many. This renders the claims indefinite, regardless of ATL’s correction of the verb tense because that does not solve this problem with “the pores.”

ATL argues that a POSA would have understood the scope of “the pores” based on “two distinct requirements” for purposes of the ’148 patent: (1) that “the outer perimeter of the pore’s geometry (*i.e.*, shape and boundaries of the pore wall, but not the pore itself) is defined by the binder itself” and (2) that “part of the inorganic particles must be inside the empty space of the pore.” Dkt. 118 at 15-16. But these arguments about the composition of the “pore wall” are wrong, and in any event fail to address the ambiguity in the claims. In particular, as discussed further below, ATL fails to address what portion of the many thousands and thousands of pores in the claimed porous film need to contain inorganic particles in order to be covered by the claims.

Start with ATL’s arguments: ATL’s first argument is that the “pore wall” composition is “defined by the binder itself.” Contrary to this assertion, neither the claims nor the specification refer to a pore wall formed exclusively by binder material.⁷ While the pores are “formed by the binder,” *id.* at 17, that does not preclude other material along with the binder from forming the pores. Indeed, ATL’s expert admits that, because the claimed porous film is made using a mixture

⁷ The specification’s only reference to a pore “wall” concerns its thickness, not its contents. ’148 Patent at 1:49 & dependent claims 3, 12.

of binder and inorganic particles, “some particles remain inside the binder (i.e., the pore walls), ...” Dkt. 118-5, Horn Decl. ¶ 56. ATL appears to concede this as well, acknowledging that “because the original binder solution [is] comprised of both binder *and* inorganic particles, . . . some particles may remain inside the binder.” Dkt. 118 at 18.

Second, ATL argues this term requires “part of the inorganic particles” to “be inside the empty space of the pore[s].” Dkt. 118 at 17. That further underscores ATL’s erroneous notion that “the pores” can be defined solely by binder. It defies logic for the claims to require “the pores” to include “a part of the inorganic particles” but at the same time to conclude those inorganic particles do not constitute, at least in part, the material that surrounds and defines “the pores.” Moreover, the specification teaches that the inorganic particles-to-binder volume ratios in the claimed “porous film” may be 3:1 (i.e., 3x as much inorganic particles as binder). ’148 Patent at 5:50-52. ATL’s expert failed to explain how the structures of “the pores” can be defined exclusively by the binder in embodiments with three times as much inorganic particles as binder.

In any event, neither of ATL’s two points address *what portion of “the pores” in the claimed porous film must contain inorganic particles*. Neither does the intrinsic evidence. Nothing in the patent’s claims or the specification teaches a POSA, with reasonable certainty, whether the claimed film requires *each* pore to contain particles, or if not, how many would be enough. Absent such intrinsic evidence, the claims are indefinite.

The claim language is ambiguous. It requires a “porous film” wherein the film “comprises pores formed by the binder,” and “the pores at least comprises a part of the inorganic particles.” ’148 Patent at 25:36-37. The only antecedent basis for “the pores” is “pores formed by the binder.” Accordingly, it is unclear if a film with, *e.g.*, one or two particle-containing pores out of thousands satisfies this claim limitation, or if more or all pores formed by the binder must contain inorganic

particles.⁸ If only some do, how many are required?

The specification provides no guidance on this issue. As to the role of inorganic particles, it teaches forming “large pore structures . . . in the vicinity of the inorganic particles,” which it states is *critical* to achieving large average pore sizes and small average wall thicknesses, and the purported benefits that follow from those features. ’148 Patent at 3:64-67. Nothing in the specification, however, indicates whether a film must have *any* particular number of pores-with-particles, or *any* particular percentage of them, in order to practice the claimed invention and achieve the associated features and benefits. Indeed, the disclosure of these purported benefits reinforces the ambiguity of the claim meaning, because the specification discloses their importance but without the claims or the specification providing *any* objective guidance as to what quantity of pores-with-particles is enough. The specification also fails to provide *any* teaching concerning how to produce pore structures in order to achieve any particular portion of those pores containing

⁸ ATL’s request for judicial correction is both irrelevant and unsupported. Even if the claims were changed to recite “the pores at least comprise[] a part of the inorganic particles” as ATL requests, the rewritten claims would not enable a POSA to determine, with reasonable certainty, whether some or all of the pores in the claimed film must be pores-with-particles. Dr. Horn only confirms this ambiguity, stating that “the claim refers to multiple ‘pores’ instead of a singular ‘pore.’” Dkt. 118-5, Horn Decl. ¶ 52.

Moreover, no intrinsic evidence clearly indicates whether correction is required or how the claims should be corrected. For example, the claim could be “corrected” by making the subject singular and keeping the verb plural; for example: “each of the pores at least comprises a part of the inorganic particles.” Such a change would align with the ’148 patent’s statements about how the particles form the claimed pores-with-particles. Instead, ATL asks this Court to hold that the subject of the clause (“the pores” plural) is correct, and that the verb should be changed, to read: “the pores at least comprise a part of the inorganic particles.” No intrinsic evidence supports that change. The ’148 patent specification never uses the term “comprise” or otherwise makes clear whether it should be singular or plural. If anything, the specification repeats the same subject-verb ambiguity, because it says that “the pores at least includes a part of the inorganic particles” ’148 Patent at 1:48. The prosecution history sheds no light here, either. To the contrary, the as-written clause “the pores at least comprises a part of the inorganic particles” appeared in both the originally submitted and as-issued claims. Ex. B at ATL-EDTX728-0001448-51 (original claims); ’148 Patent at 25:37-38, 26:21-22. Thus, ATL’s request for correction should be rejected.

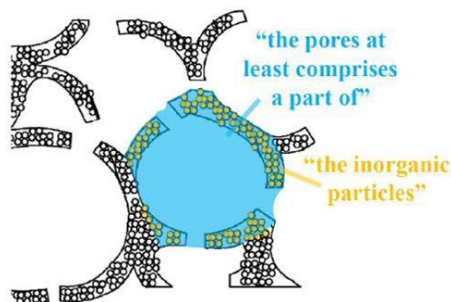
inorganic particles. ATL itself cannot avoid the ambiguity that “some particles *may* remain inside the binder while others naturally become exposed within the empty spaces of the pores” and its subjective speculation that only “much larger particles [would] stick out of the thinner walls and into the exposed space of the pores,” without any clarity on how many. Dkt. 118 at 18, 20.

Neither ATL nor its expert Dr. Horn identify any intrinsic evidence that resolves the indefiniteness. Both rely heavily on general teachings in the specification of manufacturing techniques for the claimed porous films. Dkt. 118 at 17-18; Dkt. 118-5, Horn Decl. ¶¶ 55-56. But the specification does not suggest that those techniques are directed to the creation of any particular quantity of “the pores” containing inorganic particles. The specification provides no guidance on how to select any of these conditions during processing in order to modify the number of “the pores” containing particles in the claimed porous film, nor how the presence of particles in “the pores” could impact battery performance. And while the ’148 patent contains more than 20 examples that examine various battery properties including particle size, pore size, gas permeability, and wall thickness, amongst others, not a single test was conducted to evaluate the number of “the pores” containing inorganic particles.

Dr. Horn and ATL also focus on an “electronic microscope image” in Figure 2 of the ’148 patent, identifying what they contend are “*some* particles” within “the pores.” Dkt. 118 at 17-18. But ATL and Dr. Horn do not address whether all (or any portion of) “the pores” in the image contain inorganic particles. And even if that single example and image showed that a particular portion of pores contained inorganic particles, that would not be sufficient objective evidence to resolve the ambiguity in the claims. *See e.g., Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1251 (Fed. Cir. 2008) (“Even if a claim term’s definition can be reduced to words, the claim is still indefinite if a person of ordinary skill in the art cannot translate the definition into

meaningfully precise claim scope.”). Figure 2 is allegedly an image of a film made according to Example 3, which was made with a specific binder, inorganic particles, process, and a coating solution containing 15% solids and inorganic particle distribution of Dv10 of 0.9 μm , Dv50 of 1.8 μm , and Dv90 of 3.0 μm . The ’148 patent teaches a range of solid contents of 7-25%. But claim 1 covers a broad range of inorganic particle size distributions of Dv10 of 0.015-3 μm , Dv50 of 0.2-5 μm , and Dv90 of 1-10 μm , and covers films of various pore sizes, wall thicknesses, binder types, inorganic particles, film thicknesses, and porosities. Example 3 is not representative of the full scope of the claims and therefore cannot resolve the ambiguity.

Finally, as discussed above in Section III.C, ATL cannot avoid indefiniteness by pointing to CosMX’s IPR petition challenging these claims. *See* Dkt. 118 at 20. CosMX’s prior art in the IPR renders the claims unpatentable **regardless** of the ambiguity of how many of “the pores” must contain inorganic particles to practice the claimed invention. *See, e.g., Interval Licensing*, 766 F.3d at 1371 (“The claims, when read in light of the specification and the prosecution history, must provide objective boundaries for those of skill in the art.”); *Intel*, 21 F.4th at 813 (“Importantly, it is not always impossible to adjudicate a prior-art challenge, one way or the other, just because some aspect of a claim renders the claim indefinite.”). For example, Figure 1 of the Beard reference shows particles in **all** of the “the pores,” as annotated below:



(showing inorganic particles (yellow) in the pore (blue) walls of the porous film)

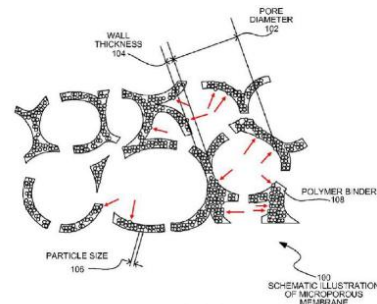


FIG. 1

(showing inorganic particles (red arrows) that extend into the pores)

Ex. C at 2 (annotations added). While the objective metes and bounds of “the pores” are not

reasonably certain, there is no dispute that a film that includes a particle in *each* of “the pores” meets this limitation. And, to the extent the ’148 patent describes the claimed porous film, so does the Murakami reference. Ex. D. That is, Murakami (1) discloses the same kind of manufacturing process and (2) uses a slurry including even more particles than the ’148 patent. *Id.* ¶ [0070]. So, if the ’148 patent describes a porous film having “the pores” claimed in the ’148 patent, Murakami does, too. Accordingly, the asserted prior art discloses the claimed subject matter *even though* the full metes and bounds of the claims cannot be ascertained with reasonable certainty. *See, e.g., Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 453–55 (Fed. Cir. 1985) (upholding decision that claim was invalid as indefinite, because “partially soluble” was insufficiently precise *and* obvious in view of prior art).

In short, a POSA has no guidance whatsoever, much less reasonable certainty, as to claim scope, i.e., whether a given film has a sufficient number or proportion of “the pores” formed by binder that contain inorganic particles to fall within the claims. This renders the claims indefinite. Each of the asserted claims of the ’148 patent should be found indefinite.

E. “a first layer comprising a first material” (’118 Patent: Claims 1-4, 6-7, 10, 12-13, 15, 16, 19, 20)

CosMX’s Construction	ATL’s Construction
“a first layer comprising a first active material”	Plain and ordinary meaning

The ’118 patent claims are directed to an electrode comprising a current collector, a first layer comprising a first material, and a second layer comprising a second material. Dkt. 118-4 (the “’118 Patent”) at 18:60-65. The dispute concerning the “first material” focuses on whether it must be an active material. The answer is “yes,” as the claim language, specification, and prosecution history all show. ATL’s contrary contention that active materials are merely a “preferred embodiment” is incorrect, *see* Dkt. 118 at 22; as shown herein, the ’118 patent stresses that active

materials are key features of the claimed invention—repeatedly and consistently referring to the first material as “active”—and distinguishes them from other, non-conductive or poorly conductive materials. CosMX’s construction should be adopted.

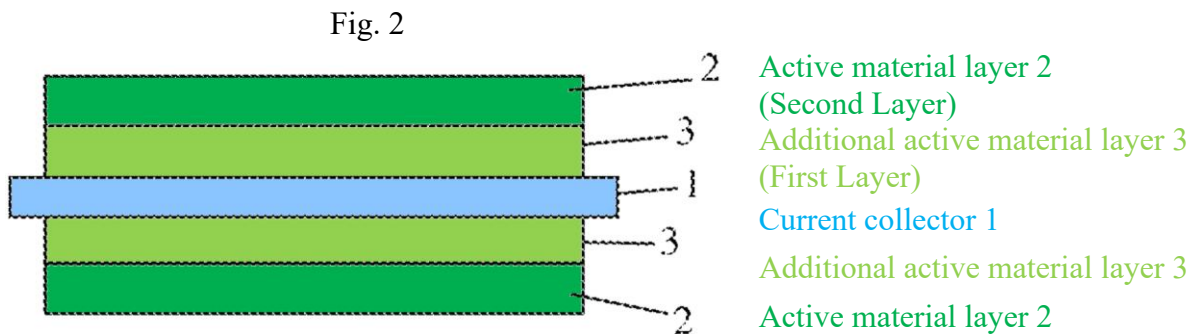
1. The Claims Show That The “First Material” Must be Active

All of the asserted claims require that “the first layer [of the claimed electrode] is arranged between the current collector and the second layer, the first layer is formed on a surface of the current collector.” ’118 Patent at 18:61-20:53. Claims 1, 10, and 19 are the independent claims. Claim 1 is directed to an “electrode.” Claims 10 and 19 are directed to an “electrochemical device,” and “an electronic device” that each have an electrode. *Id.* As ATL’s expert explained in the ’118 patent IPR, a POSA would understand that a functioning electrode requires an active material layer applied to a current collector. Ex. E, Wheeler Decl. ¶ 41 (describing lithium ion batteries stating “[t]he anode and the cathode each include an active material layer deposited on a current collector.”). Dependent claims 7 and 16 add the limitation that “the first material comprises one” of a selected group of known active materials. ’118 Patent at 19:21-28, 20:16-24. This, alongside the fact that no dependent claim further defines the first material to include non-active materials, reinforces that the first layer is directed to only active materials. Accordingly, the claim language supports CosMX’s proposed construction.

2. The Specification Touts Active Materials as “The Present Application” and Disparages Non-Conductive or Poorly Conductive Materials

CosMX’s proposed construction conforms with how the specification describes what the invention is, and what it is not. The support begins with the Abstract, which describes an electrode having “a first *active* material layer including a first *active* material.” ’118 Patent, Abstract. Likewise, the “Summary of the Invention” describes “a double layer design used for the *active* material layer in the electrode.” *Id.* at 1:45-46.

The claims track the two-layer active material layers identified in Figure 2, which “shows a double-layered *active* material layer structure of the present application, i.e., an additional *active* material layer 3 is formed between the *active* material layer 2 and the positive electrode collector 1.” ’118 Patent at 3:66-4:3. Starting from the top of the electrode, the claimed “second layer” corresponds to the top “active material layer 2” and the “first layer” corresponds to the “additional active material layer 3” situated between the top layer and the current collector 1. Figure 2, as annotated below, depicts the specification’s description:



’118 Patent at Fig. 2 (annotated).

The double-layered active material layer of Figure 2 is not merely a preferred embodiment—it is the disclosed invention. The Federal Circuit has held that “an inventor may disavow claims lacking a particular feature when the specification describes ‘the present invention’ as having that feature.” *Poly-Am.*, 839 F.3d at 1136. Here, the patentees state that “FIG. 2 shows a double-layered active material layer structure of *the present application*.” ’118 Patent at 3:66-4:3. Consistent with Figure 2, the specification repeatedly and uniformly discloses the “present application” as having this “double-layer design used for the active material layer.” *Id.* at 1:45-46 (“In the examples of *the present application*, a double layer design used for the active material layer”), 2:58-60 (“The double-layered active material layer is used for the active material layer in the electrode in the examples of *the present application*”), 6:15-20 (“the active material layer of *the present application* has a double-layer structure”).

If that were not enough, the specification then provides 50 examples of the “present application”—every one of which refers to the layer of first material as “first **active** material.” ’118 Patent at 8:26-14:36, 13:50-18:38 (Table 1 (all listing first and second active material layers)). As the Federal Circuit explained, “when the preferred embodiment is described as the invention itself, the claims are not entitled to a broader scope than that embodiment.” *SciMed*, 242 F.3d at 1341. Example 1 of the “present application” describes the “thickness of the first active material layer” and “thickness of second active material layer.” ’118 Patent at 8:47-50. Examples 2-50 are prepared with the same “preparation method of Example 1,” modifying parameters of either the “first active material layer” or the “second active material layer.” *Id.* at 9:1-14:16. Thus, the claims are limited to active material layers, which are repeatedly and consistently described as a fixture of the claimed invention. *See, e.g., Honeywell*, 452 F.3d at 1318 (“On at least four occasions, the written description refers to the fuel filter as ‘this invention’ or ‘the present invention’” and the “public is entitled to take the patentee at his word and the word was that the invention is a fuel filter.”).

Beyond repeatedly stressing active materials as a fixture of the invention, the ’118 patent goes further and **disparages** using “a non-conductive or poorly-conductive material layer” as the first material. ’118 Patent at 4:20-21. This is a second independent basis for requiring that **both** the first and second layers must be active material. *See, e.g., Poly-Am.*, 839 F.3d at 1136 (“an inventor may disavow claims lacking a particular feature when the specification distinguishes or disparages prior art based on the absence of that feature.”). The ’118 patent states that, “when compared with” a non-active “coating [of] non-conductive or poorly-conductive material,” the first and second layers of the “present application **each** contain a positive active material”—precisely so that both layers can “provide energy and their energy density is high.” ’118 Patent at 4:18-24.

The active material layer purports to solve the identified problem that other “methods for improving the safety of lithium-ion batteries are at the expense of the energy density.” *Id.* at 1:36-38. The higher energy density is caused by active material, which intercalates and holds the ions in the battery. The ’118 patent warns that using a “non-conductive or poorly conductive coating,” a.k.a. non-active materials, risks “exert[ing] greater influence on the electronic conductance capability of lithium-ion batteries,” and affecting “the normal charge and discharge” of battery. *Id.* at 4:25-31. By ensuring that both layers are active material, however, “[t]he design of the present application has no effect on the conductive properties of the active material layer.” *Id.* at 4:25-26.

By both repeatedly defining the “present application” as having a double-layer of active materials and specifically distinguishing non-active material designs, the invention of the ’118 patent requires two layers “each contain[ing] a positive active material ...” ’118 Patent at 4:19-20; *see, e.g., Rembrandt*, 716 F. App’x at 972 (“The clear, repetitive, and uniform nature of the [] patent’s description of the automated recovery process, in combination with its rejection of prior art methods that require some human involvement, limit[] the scope of the invention.”).

3. The Prosecution History Supports CosMX’s Construction

During IPR proceedings on the ’118 patent, ATL explained that the first layer is an active material layer, which is exactly aligned with CosMX’s construction. *See Aylus Networks*, 856 F.3d at 1360 (“[e]xtending the prosecution disclaimer doctrine to IPR proceedings”). ATL described the ’118 patent as claiming “a two-layer electrode design with improved safety, increased manufacturability, and higher energy density” and attributed these benefits to the “first layer” “compris[ing] active material particles having a small size to promote adhesion.” Dkt. 118-9 (’118 POPR) at 5 (capitalization removed). ATL made the same statements in its Discretionary Denial Brief. Dkt. 118-8 at 5-7. Because “statements made by a patent owner during an IPR

proceeding, whether before or after an institution decision, can be considered for claim construction and relied upon to support a finding of prosecution disclaimer,” this further supports CosMX’s construction. *Aylus Networks*, 856 F.3d at 1362.

ATL attempts to walk back its IPR statements by asserting it was providing only “Background” on a “preferred embodiment.” Dkt. 118 at 23-24. But ATL was not describing a mere preference; it was describing what the “’118 Patent Claims”: a “Two Layer Electrode Design” where a “first layer, which is positioned closest to the current collector of the electrode, comprises *active material* particles.” Dkt. 118-9 at 5. Indeed, ATL’s own expert in the IPR opined that, in the ’118 patent, “a first layer, which is positioned closest to the current collector of the electrode, comprises *active material* particles.” Ex. E, Wheeler Decl. ¶ 48; *see also id.* ¶ 41 (“The anode and the cathode each include an *active material* layer deposited on a current collector”), ¶ 50 (“Each of the active material layers (‘first’ and ‘second’ layers) contain a positive active material”); ¶ 51 (“The ’118 Patent points out that there is some interaction between the first active material layer and the second active material layer . . .”).

4. ATL’s Broader Construction Contradicts the Intrinsic Evidence

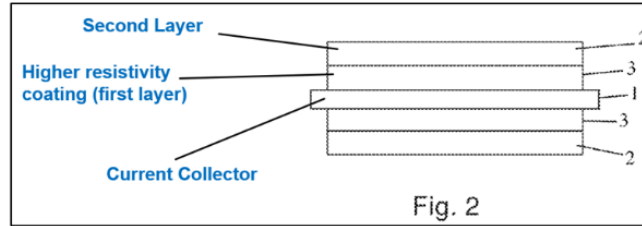
ATL argues that because related patents expressly recite “a first active material layer,” the absence of the word “active” in the ’118 patent signals a broader scope. Dkt. 118 at 25. This argument fails for two reasons. *First*, the Federal Circuit recognizes that claim differentiation is “not as strong across related patents.” *Clare v. Chrysler Group LLC*, 819 F.3d 1323, 1330 (Fed. Cir. 2016). *Second*, “claim differentiation does not serve to broaden claims beyond their meaning in light of the patent as a whole, and it cannot override clear statements of claim scope found in the specification and prosecution history.” *Poly-Am.*, 839 F.3d at 1137. Here, the specification consistently and repeatedly defines “the present application” as having two active material layers and discloses no other embodiments. ’118 Patent at 4:18-20 (“The second active material layer 2

and the first active material layer **3** of the present application *each* contain a positive active material”). None of ATL’s cited cases apply here. Dkt. 118 at 25. This is not a case where the same claim term is given different meanings across patents, but rather where the related patents are directed to the same feature because that is what the common specification describes as the invention (and relatedly, what it describes as *not* the invention).

ATL incorrectly argues that claim differentiation supports its position. Dkt. 118 at 26. Claim 7 recites that “the first material comprises one selected from the group consisting of” various specific active materials. ’118 Patent at 19:21-28. This limitation to a series of known active materials does not broaden claim 1 to include non-active materials; it simply narrows to specific kinds of active materials. Tellingly, ATL cannot point to any dependent claim reciting a non-active material, which reinforces that the invention is limited to active materials. Moreover, all 50 examples in the specification include a “first active material” and a “second active material.” *Id.* at 8:28-18:38. The first and second layers are only ever identified as an “*active* material.”

ATL argues the first layer need not use active material because that is supposedly a “preferred embodiment.” Dkt. 118 at 22. But ATL elides the specification’s key statement that Figure 2 “shows a double-layered active material layer structure of *the present application*.” *Compare* Dkt. 118 at 22, *with* ’118 Patent at 3:66-4:1. Disavowal occurs when “the specification describes ‘the present invention’ as having that feature.” *Poly-Am.*, 839 F.3d at 1136. ATL whistles past this dispositive language.

ATL contends that the claimed first layer “is simply ‘*a coating with a higher resistivity* [] provided on the surface’” Dkt. 118 at 22. ATL misses the point; “higher resistivity” does not mean that the material is non-active. In fact, ATL’s own tutorial (slide 23) asserts that the “Higher resistivity coating (first layer)” is the “additional active material 3” on Figure 2:



This is part of the “double-layered active material layer structure of the present application.” ’118 Patent at 3:66-4:3. Having a higher resistivity is merely a property, and item 3 is an active material layer nonetheless. The specification expressly contemplates that the active material layer has different properties, stating the “material and formulation of the active material layer 3 are optimized [to increase] adhesive force” and protect the collector, thereby preventing a “short-circuit.” *Id.* at 4:3-9. CosMX’s construction does not “read[] out express embodiments,” Dkt. 118 at 22—there are no other embodiments.

ATL incorrectly points to column 6 to suggest that “the first layer may include binders and conductive agents” instead of active material. Dkt. 118 at 22. That is misleading. The ’118 patent and column 6 could not be clearer that active material is required, even if binder or additional conductive agents are present in the active material layers. ’118 Patent at 4:32-54, 6:28-30 (“In addition, in order to achieve higher bonding for the first active material layer, it is required that the first active material layer contains a certain amount of binder ...”), 6:46-49 (“Since the positive electrode active material in the positive electrode generally has a relatively common conductivity, the active material layer also contains a certain amount of a conductive agent ...”). These are simply additional components of the required active material layer.

ATL cites to *Cadence Pharmaceuticals*, *Thorner*, and *Estech Systems* to argue that even “if the specification only described active materials” that still is not enough for “active” to be part of the construction. *Cadence Pharmaceuticals* and *Thorner* are inapposite because neither involved a patent that repeatedly characterized “the present application” as requiring a particular

feature nor disparaging the alternatives sought to be recaptured. *See Cadence Pharms. Inc. v. Exela PharmSci Inc.*, 780 F.3d 1364, 1369 (Fed. Cir. 2015); *Thorner v. Sony Computer Ent. Am. LLC*, 669 F.3d 1362, 1366 (Fed. Cir. 2012). And, the court in *Estech* declined to limit a claim for different reasons, including that the proposed construction would exclude an embodiment explicitly described in the specification. *Estech Sys. IP, LLC v. Carvana LLC*, No. 2:21-CV-00482-JRG-RSP, 2023 WL 3681720, at *6 (E.D. Tex. Jan. 20, 2023). Unlike there, the patentees here expressly and repeatedly described the “double-layered active material layer structure” as “the present application” and distinguished non-active materials. ’118 Patent at 4:18-24.

The first layer comprises a first active material; CosMX’s construction should be adopted.

F. “a second layer comprising a second material” (’118 Patent: Claims 1, 3, 6, 8, 10, 12, 15, 17, 19, 20)

CosMX’s Construction	ATL’s Construction
“a second layer comprising a second active material”	Plain and ordinary meaning

For the same reasons the first layer is limited to an active material, the second layer is also limited to an active material. The entire intrinsic record—the claims, the specification, and the prosecution history—confirms this limitation. The specification repeatedly describes the “present application” as a “double-layered active material layer structure,” where both layers are active material layers. ’118 Patent at 3:66-4:3, 4:18-20. Every single one of the patent’s 50 examples has a “second active material layer.” *Id.* at 8:49-50. These clear and repeated statements constitute disavowal, limiting the “second material” to a “second active material.”

ATL’s arguments for a broader construction of the “second material” fail for the same reasons they fail for the “first material.” Any argument that the second layer can be a non-active material is squarely contradicted by the specification’s repeated emphasis on the “double-layered active material layer” of the “present application” and its disparagement of non-active or poorly-

conductive materials. '118 Patent at 4:18-31. ATL's claim differentiation argument, that claim 8's list of a few specific active materials suggests that claim 1 should not be limited to active materials, *see* Dkt. 118 at 27, is unavailing for the same reasons discussed above with respect to claim 7 and the first layer. Dependent claim 8's list of active materials reinforces that claim 1 is limited to active materials. *Id.* at 19:29-37. Nothing in the '118 patent specification or claims suggests that a non-conductive or poorly conductive material could be used for the second layer; to the contrary, the '118 patent expressly disparages such materials as having diminished "electronic conductance capability" that affects "the normal charge and discharge of the lithium-ion battery" '118 Patent at 4:25-30. Moreover, ATL's expert confirmed that both the first and second layers have active material in his IPR declaration. Ex. E, Wheeler Decl. ¶ 50 ("Each of the active material layers ('first' and 'second' layers) contain a positive active material"); ¶ 51 ("The '118 Patent points out that there is some interaction between the first active material layer and the second active material layer . . ."). The second layer must comprise a second active material.

IV. CONCLUSION

CosMX's positions and constructions should be adopted.

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Respectfully submitted,

By: /s/ Michael C. Hendershot
Michael C. Hendershot
JONES DAY
1755 Embarcadero Rd
Palo Alto, CA 94303
Phone: 650.739.3939
mhendershot@jonesday.com

Blaney Harper
JONES DAY
2727 N Harwood Street
Dallas, TX 75201-1515
Phone: 202.969.3725

bharper@jonesday.com

Melissa Richards Smith

SBN: 24001351

GILLAM & SMITH LLP

303 South Washington Ave

Marshall, TX 75670

Phone: 903.934.8450

melissa@gillamsmithlaw.com

Attorneys for Defendant,

Zhuhai CosMX Battery Co. Ltd.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that, on December 16, 2025, all counsel of record who are deemed to have consented to electronic service are being served with the filing of this via the Court's CM/ECF system per Local Rule CV-5(a)(3).

/s/ Melissa R. Smith

Melissa R. Smith