

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

CAO LIGHTING, INC.,

Plaintiff,

v.

GENERAL ELECTRIC COMPANY,
CONSUMER LIGHTING (U.S.), LLC
d/b/a GE LIGHTING, and CURRENT
LIGHTING SOLUTIONS, LLC,

Defendants.

C.A. No. 20-681-GBW

CAO LIGHTING, INC.,

Plaintiff,

v.

OSRAM SYLVANIA, INC., and
LEDVANCE LLC,

Defendants.

C.A. No. 20-690-GBW

UNSEALED ON 12/19/22

MEMORANDUM ORDER

Plaintiff CAO Lighting, Inc. (“Plaintiff” or “CAO”) initiated patent infringement lawsuits against Defendants General Electric Company, Consumer Lighting (U.S.), LLC d/b/a/ GE Lighting, Current Lighting Solutions, LLC, Osram Sylvania, Inc. and LEDVANCE, LLC

(collectively, the “Defendants”).¹ Plaintiff alleges that Defendants infringe U.S. Patent No. 6,465,961 (“the ’961 patent”). The ’961 patent discloses the use of semiconductor light sources incorporating a semiconductor chip to provide visible light for general illumination of indoor and outdoor spaces used by humans. D.I. 246-1 at 1:6-12.²

Pending before the Court are Plaintiff’s motion for summary judgment on, *inter alia*, no inequitable conduct, D.I. 243; and Defendants’ motion for summary judgment on, *inter alia*, non-infringement.³ D.I. 248. For the reasons that follow, the Court denies both motions.

I. LEGAL STANDARD

“The court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a). “A genuine issue of material fact is one that could lead a reasonable jury to find in favor of the nonmoving party.” *Bletz v. Corrie*, 974 F.3d 306, 308 (3d Cir. 2020) (citation omitted). “The court must review the record as a whole, draw all reasonable inferences in favor of the nonmoving party, and must not ‘weigh the evidence or make credibility determinations.’” *Id.* (citation omitted). The Court must enter summary judgment if the non-moving party “fails to make a showing sufficient to establish the existence of an element essential to [its] case, and on

¹ The Court writes for the benefit of the parties and assumes their familiarity with these actions.

² Docket numbers identified herein refer to C.A. No. 20-681 unless otherwise noted.

³ The Court ordered the parties to rank the grounds for summary judgment raised in their motions “with the understanding that once the Court denies summary judgment as to any single ground raised in Plaintiff’s [or Defendants’] motion, the Court will not address any summary judgment grounds that were ranked after that ground.” D.I. 330. Plaintiff ranked “No Inequitable Conduct for Failure to Present Clear and Convincing Evidence of Deceptive Intent” first. D.I. 333. Defendants ranked “Non-infringement (‘first reflective layer’ . . .)” first. D.I. 332.

which [the non-moving] party will bear the burden of proof at trial.” *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986); *see also SodexoMAGIC, LLC v. Drexel Univ.*, 24 F.4th 183, 204 (3d Cir. 2022) (quoting *Celotex*, 477 U.S. at 322). The Federal Circuit “reviews a district court’s grant of summary judgment under the law of the regional circuit, here the Third Circuit.” *Acceleration Bay LLC v. 2K Sports, Inc.*, 15 F.4th 1069, 1075 (Fed. Cir. 2021) (citation omitted).

II. DISCUSSION

A. Plaintiff’s Motion for Summary Judgment of No Inequitable Conduct Is Denied.

Plaintiff seeks summary judgment of no inequitable conduct arguing that Defendants failed to present clear and convincing evidence that anyone associated with the prosecution of the ’961 patent withheld references with an intent to deceive. D.I. 244 at 7-10. Defendants argue a genuine issue of material fact exists on the inventors’ and his attorneys’ specific intent to deceive the United States Patent and Trademark Office (“PTO”) both during the initial prosecution of the patent application that matured into the ’961 patent and during reexamination proceedings of the ’961 patent. D.I. 286 at 4. As there are genuine issues of material fact and a reasonable factfinder could find for Defendants, Plaintiff’s motion for summary judgment of no inequitable conduct is denied.

“Inequitable conduct is an equitable defense to patent infringement that, if proved, bars enforcement of a patent.” *U.S. Water Servs., Inc. v. Novozymes A/S*, 843 F.3d 1345, 1352 (Fed. Cir. 2016) (internal quotation marks and citation omitted). “A finding of inequitable conduct as to any single claim renders the entire patent unenforceable[.]” *Id.* (internal quotation marks and citation omitted). To prevail on an inequitable conduct allegation, “the accused infringer must prove that the patentee acted with the specific intent to deceive the [PTO].” *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1290 (Fed. Cir. 2011). “In a case involving nondisclosure of information, clear and convincing evidence must show that the applicant *made a*

deliberate decision to withhold a *known* material reference.” *Id.* (emphasis in original) (internal quotation marks and citation omitted). While a court may infer intent from indirect and circumstantial evidence, “to meet the clear and convincing evidence standard, the specific intent to deceive must be the ‘single most reasonable inference able to be drawn from the evidence.’” *Id.* (quoting *Star Sci., Inc. v. R.J. Reynolds Tobacco Co.*, 537 F.3d 1357, 1366 (Fed. Cir. 2008)). That is, the evidence must be sufficient to “require a finding of deceitful intent in light of all of the circumstances.” *Id.* (emphasis in original) (internal quotation marks and citation omitted).

On August 24, 2001, Dr. Densen Cao and patent attorney Daniel P. McCarthy filed a patent application that matured to the '961 patent. D.I. 245 at 1; D.I. 287 at 1. On August 29, 2002, in a separate patent application filed by Dr. Cao and Mr. McCarthy, the PTO issued an Office Action rejecting certain claims in view of U.S. Patent No. 6,220,722 (“Begemann”) and an article entitled “LED’s move from indication to illumination” by Bill Schweber (“Schweber”). *Id.* Dr. Cao and Mr. McCarthy did not submit the Begemann and Schweber references to the PTO in connection with the '961 patent application. *Id.* Plaintiff argues that there is no evidence that Dr. Cao was aware of Begemann and Schweber during the prosecution of the '961 patent. D.I. 244 at 7; D.I. 295 at 1. Plaintiff also argues that Mr. McCarthy’s “mere knowledge of the Begemann and Schweber reference cannot establish intent to deceive.” D.I. 244 at 8; D.I. 295 at 2. Plaintiff cites to *Therasense* which states “proving that an applicant knew of a reference, should have known of its materiality, and decided not to submit it to the PTO does not prove specific intent.” 649 F.3d at 1290. Defendants disagree that Dr. Cao was not aware of Begemann and Schweber. D.I. 286 at 6. It was Mr. McCarthy’s practice to provide his clients with copies of the office actions and the cited prior art. D.I. 286 at 6-7; D.I. 291-1, Ex. 95 (McCarthy Dep.) at 58:14-59:20. Mr. McCarthy testified that he did recall the Begemann reference, but he could not recall why he did

not file a supplemental Information Disclosure Statement (“IDS”) to inform the Examiner that the reference was cited in a co-pending patent application. D.I. 286 at 6-7; D.I. 291-1, Ex. 95 (McCarthy Dep.) at 173:17-176:16, 191:9-25, 212:12-214:12.

At the summary judgment stage, the focus is whether Defendants have “mustered sufficient evidence such that, at the trial stage, a factfinder *could reasonably conclude* that deceptive intent is the single most reasonable inference.” *Systemex Corp. v. Beckman Coulter, Inc.*, No. 19-1642-JFB-CJB, 2022 WL 1503987, at *4 (D. Del. May 6, 2022), *report and recommendation adopted*, No. 19-1642-JFB-CJB, 2022 WL 1744573 (D. Del. May 31, 2022) (emphasis in original). Granting summary judgment on inequitable conduct “is permissible, but uncommon,” in light of the “inherently factual nature of the issue of intent.” *Digital Control, Inc. v. Charles Mach. Works*, 437 F.3d 1309, 1317 (Fed. Cir. 2006). As “[d]irect evidence of intent is rare, . . . a court must often infer intent from the surrounding circumstances.” *Id.* Defendants have mustered sufficient evidence that a factfinder could reasonably conclude that Dr. Cao and Mr. McCarthy intended to deceive the PTO by not submitting the Begemann and Schweber references during the prosecution of the ’961 patent.

There are also genuine issues of material fact regarding the behavior of Dr. Cao and John Gadd, Dr. Cao’s patent attorney during the reexamination of the ’961 patent, during the reexamination proceedings of the ’961 patent. D.I. 286 at 7-10. Plaintiff argues that there is no evidence that Dr. Cao was aware of a reference entitled Wierer et al., High Power AlGaInN flip-chip light-emitting diodes, 78 APPL. PHYS. LETT. 2 (May 28, 2001) (“Wierer”), which was cited during one of the reexamination proceedings of the ’961 patent. D.I. 244 at 7; D.I. 245 ¶ 23; D.I. 246-1, Ex. 12 (Cao Dep.) at 76:13-79:24. Mr. Gadd similarly testified in a deposition from an earlier litigation that he was not familiar with the Wierer reference. D.I. 244 at 9-10; D.I. 246-1,

Ex. 14 (Gadd Dep.) at 57:2-12, 76:15-77:6, 78:22-23. Defendants respond that Mr. Gadd was unable to explain how he was unaware of the Wierer reference when it was cited in one of the reexaminations of the '961 patent. D.I. 286 at 9; D.I. 246-1, Ex. 14 (Gadd Dep.) at 62:18-66:19. There is also evidence that Dr. Cao was at least aware of the Wierer reference. D.I. 286 at 9. Yet, “Wierer was never disclosed to the PTO by Mr. Gadd or Dr. Cao in the *ex parte* reexamination, despite Mr. Gadd previously citing prior art reference cited in other *inter partes* reexaminations in the *ex parte* reexaminations.” *Id.* Thus, Defendants have mustered sufficient evidence that a factfinder could reasonably conclude that Dr. Cao and Mr. Gadd intended to deceive the PTO by not submitting the Wierer reference to the Examiner during the reexamination of the '961 patent.

For the reasons set out above, the Court denies Plaintiff’s motion for summary judgment of no inequitable conduct.

B. Defendants’ Motion for Summary Judgment of Non-Infringement Is Denied.

Defendants seek summary judgment of non-infringement arguing that, because claims in the '961 patent purportedly require two structures—that is, a “a substrate on which epitaxial layers are grown” (claim 7)⁴ and “a device as recited in claim 7 further comprising a first and a second

⁴ Claim 7 recites:

- A device as recited in claim 1 wherein said chip includes
 - a substrate on which epitaxial layers are grown,
 - a buffer layer located on said substrate, said buffer layer serving to mitigate differences in material properties between said substrate and other epitaxial layers,
 - a first cladding layer serving to confine electron movement within the chip, said first cladding layer being adjacent said buffer layer,
 - an active layer, said active layer emitting light when electrons jump to a valance state,
 - a second cladding layer, said second cladding layer positioned so that said active layer lies between cladding layers, and
 - a contact layer on which an electron may be mounted for powering said chip.

reflective layers” (claim 8)⁵— Plaintiff may not point to the same “patterned sapphire substrate” to satisfy both claimed structures. *See, e.g.*, D.I. 298 at 11. According to Defendants, the term “further comprising” in claim 8 requires the substrate and the first reflective layer to be physically separate. *Compare* D.I. 249 at 28, *with* D.I. 280 at 4. It does not.

The Court declines to construe “further comprising” as creating a negative limitation requiring separate structures for the “first reflective layer” and “substrate.” At claim construction, the parties did not dispute the meaning of “further comprising” and the Court did not construe it. But Defendants, now arguing that the plain meaning of “further comprising” requires the substrate and first reflective layer to be separate structures, D.I. 298 at 12, import a limitation this Court already rejected.⁶ When the Court construed the phrase “a first and a second reflective layers . . . serving to reflect light emitted by said active layer” in claim 8 to mean that “the first and second reflective layers are distinct from each other and reflect light emitted by the active layer,” the Court rejected Defendants’ proposed construction that would have required the layers to be comprised of “distinct layers of material.” D.I. 230 at 13 (rejecting Defendants’ proposed construction of “distinct layers of material that are intended to reflect more light emitted by said active layer than is absorbed by and transmitted through the layers of material.”). Indeed, the claims do not recite

⁵ Claim 8 recites:

A device as recited in claim 7 further comprising a first and a second reflective layers, each of said first and second reflective layers being located on opposite sides of said active layer, said reflective layers serving to reflect light emitted by said active layer.

⁶ *See also* *ABB Automation Inc. v. Schlumberger Res. Mgmt. Servs., Inc.*, 254 F. Supp. 2d 479, 481 (D. Del. 2002) (denying summary judgment of non-infringement where “[d]efendant’s motion is based on a claim construction not adopted by the court”).

any properties or materials for the substrate.⁷ See *Applied Med. Resources Corp. v. U.S. Surgical Corp.*, 448 F.3d 1324, 1333 n.3 (Fed. Cir. 2006) (explaining that use of two terms in a claim merely “requires that they connote different *meanings*, not that they necessarily refer to two different *structures*”). Defendants have not persuaded the Court to disturb its prior claim construction Order or to conclude as a matter of law that the patterned sapphire substrate cannot constitute a “first reflective layer”.

Thus, the parties’ dispute amounts to an issue for the finder of fact relating to the application of the claims—that is, whether the patterned sapphire substrate counts only as “a substrate on which epitaxial layers are grown” or as both “a substrate on which epitaxial layers are grown” and a “first reflective layer.” *Integra LifeSciences Corp. v. HyperBranch Med. Tech., Inc.*, No. CV 15-819-LPS-CJB, 2018 WL 1664971, at *2 (D. Del. Apr. 6, 2018); accord *PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1355 (Fed. Cir. 1998) (“[A]fter the court has defined the claim with whatever specificity and precision is warranted by the language of the claim and the evidence bearing on the proper construction, the task of determining whether the construed claim reads on the accused product is for the finder of fact.”).

For the above reasons, Defendants’ motion for summary judgment of non-infringement is denied.

⁷ Although Defendants quote a patent examiner as stating that “claim 8 requires that the substrate and the reflectors be separate structures,” D.I. 249 at 29, a statement by the examiner cannot evidence a disclaimer or disavowal of claim scope as the patent owner never said it or agreed with it. See, e.g., *3M Innovative Props. Co. v. Tredgar Corp.*, 725 F.3d 1315, 1331–32 (Fed. Cir. 2012) (“We are guided by legal principles dictating that we rest on the statements made by the patentee over conflicting statements by the examiner because it is the patentee’s words that define the claim.”).

III. CONCLUSION

For the foregoing reasons, the Court denies Plaintiff's motion for summary judgment on no inequitable conduct. The Court also denies Defendants' motion for summary judgment on non-infringement. Pursuant to D.I. 330, with the exception of Plaintiff's and Defendants' cross-motions for summary judgment related to actual notice under 35 U.S.C. § 287 (*see* D.I. 244 at 14-16; D.I. 249 at 10-11), all remaining grounds for summary judgment identified in Plaintiff's and Defendants' motions are also denied.⁸

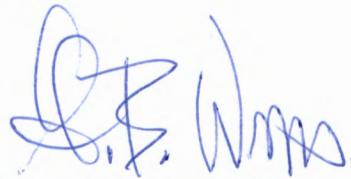
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WHEREFORE, at Wilmington this 17th day of November, 2022, **IT IS HEREBY ORDERED** that:

1. Plaintiff's Motion for Summary Judgment and Motions to Exclude Under Daubert and Federal Rule of Evidence 702 (D.I. 254 in C.A. No. 20-690, D.I. 243 in C.A. No. 20-681) is **DENIED-IN-PART**.
2. Defendants' Motion for Summary Judgment and Motion to Exclude Expert Testimony (D.I. 259 in C.A. No. 20-690, D.I. 248 in C.A. No. 20-681) is **DENIED-IN-PART**.
3. Plaintiff's Motions to Exclude Under Daubert and Federal Rule of Evidence 702 (D.I. 254 in C.A. No. 20-690, D.I. 243 in C.A. No. 20-681) and Defendants' Motion to Preclude Expert Testimony (D.I. 259 in C.A. No. 20-690, D.I. 248 in C.A. No. 20-681) remain under consideration by the Court.

⁸ The Court wants the parties to submit supplemental briefing on the cross-motions for summary judgment related to actual notice under 35 U.S.C. § 287. The Court will enter a separate order governing the scheduling of the supplemental briefing on the cross-motions for summary judgment related to actual notice under 35 U.S.C. § 287 and will rule on that motion after receiving the requested supplemental briefing.

4. Because the Memorandum Order is filed under seal, the parties shall meet and confer and, no later than November 29, 2022, submit a joint proposed redacted version, accompanied by a supporting memorandum, detailing how, under applicable law, the Court may approve any requested redactions. In the absence of a timely, compliant request, the Court will unseal the entire opinion.



GREGORY B. WILLIAMS
UNITED STATES DISTRICT JUDGE