

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG DISPLAY CO., LTD.,
Petitioner,

v.

PICTIVA DISPLAYS INTERNATIONAL LTD.,
Patent Owner.

Case No. IPR2024-01187
Patent No. 9,257,492

PATENT OWNER'S PRE-INSTITUTION SUR-REPLY

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Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-145

I. Discretionary Denial Is Appropriate Under Section 325(d)

Petitioner does not dispute that the two patent documents related to Ingle (the primary reference of Ground I) were before the Examiner. Pet. 5 n.2. Nor does Petitioner dispute that these references are substantively the same as Ingle. *See* POPR 31. And while Petitioner contends that the Examiner did not rely on these references, Petitioner fails to refute the Examiner's express indication that she considered them as two of only a handful of submitted references. *See id.* at 31-32.

Petitioner instead suggests that combining Hasei with Ingle alters the analysis based on Hasei's disclosure of a purportedly novel "droplet discharge method" for forming an electronic component. Reply 1. That assertion fails for one of the same reasons that the combination fails on the merits. The Petition asserts that a skilled artisan would have combined Ingle and Hasei in part because of Ingle's disclosure that an electronic component can be produced "using a conventional process," and Hasei's purported disclosure of "such a conventional process." Pet. 18-19. But the conventional process described in both Ingle and Hasei is the photolithography process. *See* POPR 14-19 (citing EX1005 (Ingle), at 16:19-25; EX1007 (Hasei), ¶2 (conventional technology), ¶3 (problem to be solved)). Moreover, Hasei specifically contrasts its purportedly novel "droplet discharge" method with the conventional methods allegedly linking its teachings to Ingle. *See* Hasei, ¶3. Thus, presenting Hasei's disclosure to the Examiner in the context of the combination proposed by

Petitioner would not have altered the outcome. Hasei also includes no discussion of capacitors (*see* POPR 20), and thus the Ingle figures as modified by Petitioner are pure speculation with no basis in Ingle or Hasei. *See* POPR 14-15.

Accordingly, because Petitioner’s alleged combination is substantially the same as the Ingle disclosures that Petitioner agrees were before the Examiner, and because Petitioner identifies no material error in her consideration of them, both steps of *Advanced Bionics* are satisfied, and discretionary denial is appropriate.

II. The Board Should Adopt Pictiva’s Proposed Claim Construction

The “forming” issue matters only for the Hanamura grounds. Notably, the Reply does not dispute that however “form[ed],” the purported first trench is only in the single purported conductive layer composed of electrodes 14 and 20. *See* POPR 37-39. Thus, the claim construction for “forming” is not dispositive.

The Board should also reject Petitioner’s contention that claim 1 contemplates simultaneous formation of the first trench and first/second conductive layers. Tellingly, Petitioner does not rely on the relevant claim language or corresponding disclosures in the specification to support this proposal, relying instead on expert testimony and claim language regarding different steps. Reply 3.

Petitioner does not dispute, however, that the plain and ordinary meaning of the actual claim term at issue requires the creation of a trench by removing certain portions of the previously formed first and second electrically conductive layers. The

'492 patent's specification supports this interpretation, indicating that the conductive layers can be applied "without structure" and can be subject to "subsequent structuring." EX1001 ('492 patent), at 11:2-4, 11:24-26, 2:5-7. The '492 patent specifically describes forming the claimed trenches using techniques such as photolithography, etching, or laser ablation. *Id.* at 4:5-9, Figs. 1-4.

Petitioner cites portions of the '492 patent related to simultaneously applying the dielectric and demarcating a component region to support its position that the patent contemplates simultaneous performance of distinct steps. Reply 4. But those steps are not distinct, as reflected in the language of 10[g], requiring "applying the dielectric in a structured fashion to the second layer *such that* the dielectric demarcates a component region for forming an optoelectronic component relative to the second contact region." '492 patent, at 21:32-35; *see also id.* at 1:66-2:6 (applying the dielectric layer in a "structured fashion" means that "the desired structure is already formed during the application of the corresponding layer"). In contrast, claims do not recite, "forming a first and second electrically conductive layer such that a first trench is formed in the first and second electrically conductive layer." Instead, the claims recite three separate forming steps. Thus, Petitioner's reliance on the dielectric disclosures is misplaced.

While separately recited steps do not always require performance in a particular order, "such a result can ensue when the method steps implicitly require

that they be performed in the order written.” *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1369 (Fed. Cir. 2003) (quoting *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1342-43 (Fed. Cir. 2001)). For example, in *Loral Fairchild Corp. v. Sony Corp.*, 181 F.3d 1313 (Fed. Cir. 1999), the patent claimed “[a] process for fabricating a charge coupled device structure in a semiconductor substrate.” *Id.* at 1317. The claim required “forming a first insulation layer over said plurality of first gate electrodes,” and separately required “forming implanted barrier regions ... aligned with the vertical edges of the insulation layer.” *Id.* at 1321. The Federal Circuit held that the claim required forming the insulation layer prior to forming the barrier regions, reasoning that “[b]y the literal language of the claim, the edges of the implantation barrier regions are aligned with the edges of the insulation layer; hence, the insulation layer must already be in place.” *Id.* at 1321 (noting additionally that [n]owhere does the specification suggest implanting the barrier regions prior to growing the insulation layer”); *see also Mantech Env’t Corp. v. Hudson Env’t Servs., Inc.*, 152 F.3d 1368, 1376 (Fed. Cir. 1998) (holding “that the sequential nature of the claim steps is apparent from the plain meaning of the claim language and nothing in the written description suggests otherwise”). The same is true here; the literal language of the claims requires forming a trench in two electrically conductive layers, suggesting that the two electrically conductive layers must already be in place, and the specification does not suggest otherwise.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify, pursuant to 37 C.F.R. § 42.6, that on December 19, 2024, a complete copy of the **PATENT OWNER'S PRE-INSTITUTION SUR-REPLY** was served upon the following, by ELECTRONIC MAIL:

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