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Paper 9
Date: December 2, 2020

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SATCO PRODUCTS, INC.,
Petitioner,

v.

SEOUL VIOSYS CO., LTD.,

IPR2020-00655
Patent 9,627,435 B2

Before ERICA A. FRANKLIN, JEFFREY W. ABRAHAM, and ELIZABETH M. ROESEL, *Administrative Patent Judges.*

FRANKLIN, *Administrative Patent Judge*.

DECISION
Denying Petitioner's Request for Rehearing
35 U.S.C. § 314

I. INTRODUCTION

Satco Products, Inc. ("Petitioner") requests a rehearing of the Decision Denying Institution ("Decision") of an *inter partes* review of claims 1, 2, 6 and 7 of U.S. Patent No. 9,627,435 B2 (Ex. 1001, "the '435 patent") entered on September 16, 2020 (Paper 7, "Dec."). Paper 8 ("Reh'g Req.").

In the Petition (Paper 2, "Pet.") Petitioner raised the following challenges to those claims:

Claims Challenged	35 U.S.C. §	Reference(s)
1, 2, 6, 7	103(a)	Yang[1], Schubert,[2] Aanegola[3]
1, 2, 6, 7	103(a)	Yang, Van Zant,[4] Hawrylo,[5] Yukimoto[6]
1, 7	102	Salam[7]
2, 6	103(a)	Salam

Petitioner also relied on the Declaration of P. Morgan Pattison, Ph.D. (Ex. 1003).

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[1] Yang et al., US 2005/01790472 A1, published Aug. 18, 2005 ("Yang," Ex. 1004).
[2] Schubert, *Light-Emitting Diodes*, 1st ed. New York: Cambridge University Press 2003 ("Schubert," Ex. 1007).
[3] Aanegola et al., US 2005/0239227 A1, published Oct. 27, 2005 ("Aanegola," Ex. 1008).
[4] Van Zant, *Microchip Fabrication: A Practical Guide to Semiconductor Processing*, 4th ed. Ch. 12, "Deposition," New York: McGraw Hill 2000 ("Van Zant," Ex. 1013).
[5] Hawrylo et al., US 4,095,011, issued June 13, 1978 ("Hawrylo," Ex. 1014).
[6] Yukimoto, US 2003/0010989, published Jan. 16, 2003 ("Yukimoto," Ex. 1020).
[7] Salam, US 6,346,771 B1, issued Feb. 12, 2002 ("Salam," Ex. 1005).

Seoul Viosys Co., Ltd. ("Patent Owner") filed a Preliminary Response to the Petition. Paper 6. Patent Owner relied on the Declaration of Daniel Feezell, Ph.D. (Ex. 2001).

Upon consideration of the Petition, Preliminary Response, and evidence of record, we determined that Petitioner failed to demonstrate a reasonable likelihood that it would prevail in showing the unpatentability of any challenged claim. Dec. 22, 29. In the Rehearing Request, Petitioner seeks a reconsideration of that determination with regard to the two grounds based on combinations including Yang. *See* Reh'g Req. 2 n.2 ("Although Petitioner disagrees with the Board's rationale for rejecting the Salam-based grounds, in order to streamline this request for rehearing Petitioner focuses on the Yang grounds.").

II. DISCUSSION

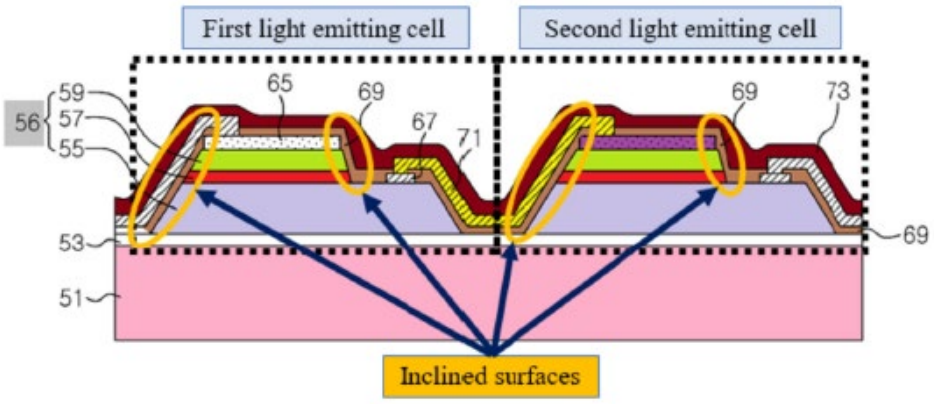
"When rehearing a decision on petition, a panel will review the decision for an abuse of discretion." 37 C.F.R. § 42.71(c). "The burden of showing a decision should be modified lies with the party challenging the decision. The request must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, an opposition, or a reply." *Id.* § 42.71(d). Because Petitioner has not met its burden, as discussed below, the Rehearing Request is *denied*.

Independent claim 1 of the '435 patent recites a light-emitting device comprising a substrate and first and second light emitting cells disposed on a substrate, wherein each light emitting cell comprises, among other elements, first and second semiconductive layers, an active layer disposed between the first and second semiconductive layers, and a first inclined surface.

Ex. 1001, 21:2–12. Claim 1 also recites that "the first inclined surface is continuous and has a slope of approximately 20° to approximately 80° from a horizontal plane of the substrate." *Id.* at 21:25–27.

In the Decision, we determined that Petitioner failed to show that Yang teaches or suggests a light emitting device comprising a first inclined surface that is continuous, as required by independent claim 1. Dec. 17–20. In the Rehearing Request, Petitioner asserts that the Board erred in making that determination. Req. Reh. 1. Specifically, Petitioner asserts that "[t]he Board reached this conclusion based on an incorrect belief, put forward by the Patent Owner, that Petitioner argued that the 'continuous' inclined surface must encompass 'all layers' of the light emitting cell," i.e., that the continuous surface must extend along a surface of the first and second semiconductor layers, with the active layer disposed therebetween. *Id.* at 1, 3 (citing Dec. 17–18). Petitioner asserts that it made no such argument. *Id.* According to Petitioner, the Board, therefore, "misapprehended Petitioner's argument and the meaning of the word 'continuous'." *Id.* at 1. We disagree.

In the Petition, Petitioner did not expressly provide a proposed construction for the term "continuous" or the phrase "the first inclined surface is continuous." *See* Pet. 10; Dec. 8. Instead, Petitioner relied on the ordinary and customary meaning of the word. *See* Pet. 10; Dec. 8. We found that Petitioner illustrated what it believed to be the recited first inclined surface that is continuous in its annotated version of Figure 32 of the '435 patent, set forth below.



As explained in the Decision, "Petitioner's annotated version of Figure 32 of the '435 patent adds dashed boxes and headers to indicate the first and second light emitting cells, and adds a different color to each component of the light emitting device." Dec. 15 (citing Pet. 37, 41). Petitioner codes the "substrate" (50) pink, the "first semiconductor layer" (55) light purple, the "active layer" (57) red, and the "second semiconductor layer" (59) green. *Id.* We noted also that "Petitioner's annotated version of Figure 32 of the '435 patent also adds a gold circle around what Petitioner considers to be the inclined surfaces of the light emitting cells." *Id.* at 15–16 (citing Pet. 41).

Specifically, in the Decision, we relied upon Petitioner's assertion that "the '*first inclined surface*' of the light emitting cells *corresponds to the 'longer inclined surface on the left side* of each respective light emitting cell shown in Figure 32' of the '435 patent." *Id.* at 16 (quoting Pet. 41) (emphasis added). As explained in the Decision, Petitioner identified in its annotated version of Figure 32 precisely what it believes to be the first inclined surface, i.e., the "longer inclined surface on the left side of each respective light emitting cell," which is unmistakably depicted in Petitioner's annotated version of Figure 32 as comprising the "first semiconductor layer" (55) (light purple shading), the "active layer" (57) (red

shading), and the "second semiconductor layer" (59) (green shading). Dec. 16 (citing Pet. 41).

Additionally, we recognized Petitioner's assertion that the left side of each inclined surface circled in gold in its annotated version of Figure 32 represents a "continuous" surface. *Id.* at 16 (citing Pet. 60). Specifically, Petitioner stated in the Petition, "This limitation requires that the 'first inclined surface' . . . be continuous and have a slope within a wide range. In annotated FIG. 32, the *left side of each inclined surface has such an inclined surface (circled gold)*." Pet. 60 (emphasis added). Again, the left side of each inclined surface that is circled in gold in Petitioner's annotated version of Figure 32 unmistakably includes the "first semiconductor layer" (55) (light purple shading), the "active layer" (57) (red shading), and the "second semiconductor layer" (59) (green shading). Dec. 17–18 (citing Pet. 41, 60).

Thus, as explained in the Decision, we based our determination that Petitioner failed to show that Yang teaches or suggests a light emitting device comprising a first inclined surface that is continuous on "Petitioner's own position that for an inclined surface to be continuous as claimed, the incline must continue along the first semiconductor layer, the active layer and the second semiconductor layer." *Id.* at 19–20.

In the Rehearing Request, Petitioner asserts that it "identified the left side of the inclined surface as a surface that is an example of the claimed 'first inclined surface,' but did not argue that 'continuous' invokes an 'all layer' requirement." Req. Reh. 5. Petitioner acknowledges that it did not propose an express construction for the term "continuous," but instead relied on its ordinary and customary meaning and provided an annotated version of Figure 32 of the '435 patent to "show various features." *Id.* at 2 (citing Pet. 10), 5. However, in the Rehearing Request, Petitioner asserts for the first

time that it considers the ordinary and customary meaning of a "continuous" surface in claim 1 to be "an uninterrupted surface." Req. Reh. 5 (footnoting "*See, e.g.*, https://dictionary.cambridge.org/dictionary/english/continuous ('without a pause or interruption').").

Further, Petitioner asserts that it did not make an "all layers" argument because "other continuous (uninterrupted) inclined surfaces in the cells of FIG. 32 do not include any other layers." *Id.* In support of that statement, Petitioner sets forth in the Rehearing Request a different and new annotated version of Figure 32 of the '435 patent with circles around the right sidewall of element 55 (the "first semiconductor layer"). *Id.* According to Petitioner, its new annotated version of Figure 32 shows that "one light emitting cell (56) includes a single layer (55) having a continuous (uninterrupted) inclined sidewall. The same goes for the other cell. Cells having these uninterrupted inclined sidewalls also meet the requirements of claim 1." *Id.* Additionally, Petitioner contends, for the first time, how its newly proposed ordinary and customary meaning of the word "continuous" is allegedly supported by the Specification, and in view of a comparison between the language of claims 1 and 7. *See id.* at 6–7.

In other words, Petitioner seeks to demonstrate that we misapprehended Petitioner's argument relating to the meaning of the word "continuous" not based upon what it presented in the Petition, but instead based upon newly raised arguments regarding what it asserts is the ordinary and customary meaning of the term. That showing is misplaced as a Rehearing Request does not provide an opportunity to raise additional arguments or supplement information set forth in the Petition. Thus, Petitioner has not shown that we have misapprehended any matter raised in

the Petition regarding what constitutes a first inclined surface that is continuous.

Moreover, we note that Petitioner's rationale in the Rehearing Request is deficient as Petitioner fails to consider that claim 1 does not merely recite that *a surface* is "continuous," but that "the first inclined surface is continuous." Ex. 1001, 21:25. Petitioner's new argument regarding the meaning of the term "continuous" focuses only on that term without considering that it modifies the phrase "the first inclined surface." *Id.* Indeed, Petitioner asserts that surfaces other than the first inclined surface have uninterrupted inclined sidewalls that also meet the requirements of claim 1. Req. Reh. 5. However, that cannot be, as claim 1 expressly recites that it is "the first inclined surface" that is "continuous," not just any surface. Petitioner's new position in the Rehearing Request does not take into account its earlier position that the "first inclined surface" corresponds to "the longer inclined surface on the left side of each respective light emitting cell shown in FIG. 32 . . . (circled in gold)." Pet. 41. As discussed above, Petitioner depicts that portion of Figure 32 as including the first semiconductor layer, the active layer, and the second semiconductor layer. Dec. 17–18; Pet. 41. Therefore, even under Petitioner's new argument that the term "continuous" means "uninterrupted," the uninterrupted surface would still have to be present along the surface of the first semiconductor layer, the active layer, and the second semiconductor layer, as Petitioner has recognized that surface as the first inclined surface.

III. CONCLUSION

Because Petitioner has not demonstrated that we misapprehended or overlooked matters raised in the Petition, we conclude Petitioner has not shown that the Board abused its discretion in denying institution of the challenged claims. *See* 37 C.F.R. § 42.71(d).

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that Petitioner's Request for Rehearing is *denied*.

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