

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.

IPR2024-01095
Patent 11,828,425 B2

Before GRACE KARAFFA OBERMANN, GARTH D. BAER, and JASON
M. REPKO, *Administrative Patent Judges*.

BAER, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining Challenged Claims 2 and 17 Unpatentable
35 U.S.C. § 318(a)

1. Background

In a Final Written Decision (Paper 54), we determined that Petitioner had proven by a preponderance of the evidence that claims 2, 4, 9–12, and 17 of U.S. Patent No. 11,828,425 B2 (“the ’425 patent”) were unpatentable as obvious. After our Final Written Decision, the Director vacated our Decision as to claims 2 and 17 and remanded the case back to the Board to consider the parties’ statements as to the outcome of a related district court proceeding, in which a jury in a parallel district court case found claim 2 not invalid. Paper 63, 2–3. According to the Director’s remand order, “[i]f the Board maintains findings and conclusions different from the district court, the Board shall explain in the remand decision why a different outcome is warranted.” *Id.* at 3–4. For the reasons below, we maintain our finding that claims 2 and 17 of the ’425 patent are unpatentable.

2. Analysis

Patent Owner argues that Petitioner’s challenges here are materially the same as those in the district court even though they are based on entirely different references than those Petitioner asserts here. We disagree.

Dependent claims 2 and 17 require an electron transport layer (ETL) that is both n-doped and comprised of 8-hydroxy-quinolinolato-lithium (Liq). The district-court defendant’s first invalidity challenge relied primarily on Clix2, which lacked an n-doped ETL. Paper 48, 2, Paper 50, 3. Thus, the asserted combination required modifying Clix2’s non-doped ETL by adding an n-dopant. Clix2’s missing n-doped ETL appeared to be a focus at trial. *See* Ex. 2034, 917:1–18, 920:8–14. Here, in contrast, Petitioner proposed a more modest modification to materially different primary

references, Suzuki and Diekmann, which both already have n-doped ETLs. *See* Paper 50, 2–3; Paper 54 8–9. As we explained in our Final Written Decision, because Patent Owner did not contest that Liq acts as an n-dopant in Ma, Petitioner’s combinations were obvious because they merely “substitute one known n-dopant for another to further the same goal of improving ETL conductivity.” Paper 54, 12. That simple-substitution analysis would not be the same when n-doping Clix2’s non-doped ETL. For this reason, we agree with Petitioner that the district-court Clix2-based combination “is a different combination with a materially different motivation-to-combine analysis,” as compared to the Diekmann/Suzuki and Ma combinations that are at issue here. Paper 50, 3.

We also agree with Petitioner that the second district-court challenge based on Kondakova is materially different from the Diekmann/Suzuki and Ma combinations that Petitioner asserts here. *Id.* As Petitioner explains, Kondakova teaches doping with an alkaline metal, rather than with Liq. Paper 50, 3. Here, in contrast, Petitioner’s combinations rely on Ma, which teaches “an OLED with an electron transport layer doped with [Liq].” Paper 54, 10.

For the reasons above, we find Petitioner’s challenges here are not materially the same as those in the district court. Thus, the district-court jury’s finding regarding the defendant’s failure to demonstrate invalidity does not undermine our finding that Petitioner met its burden to show unpatentability in this case based on materially different prior art references. We therefore maintain that Petitioner demonstrates by a preponderance of the evidence that claims 2 and 17 are unpatentable for the reasons set forth

in our Final Written Decision. *See* Paper 54, 10–15. A summary of our conclusions for those claims is set forth in the table below.

Claims	35 U.S.C. §	Reference(s)/ Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
2, 17	103	Diekmann, Ma	2, 17	
2, 17	103	Suzuki, Ma	2, 17	
Overall Outcome			2, 17	

Accordingly, it is ORDERED that claims 2 and 17 of the '425 patent have been shown to be unpatentable.

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