# UNITED STATES PATENT AND TRADEMARK OFFICE

# BEFORE THE PATENT TRIAL AND APPEAL BOARD

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD. TSMC NORTH AMERICA CORP., FUJITSU SEMICONDUCTOR LIMITED, and FUJITSU SEMICONDUCTOR AMERICA, INC., Petitioner,

v.

ZOND, LLC, Patent Owner.

Case IPR2014-01494 Patent 6,896,775 B2

Before KEVIN F. TURNER, DEBRA K. STEPHENS, JONI Y. CHANG, SUSAN L. C. MITCHELL, and JENNIFER M. MEYER, *Administrative Patent Judges*.

TURNER, Administrative Patent Judge.

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DECISION Institution of *Inter Partes* Review 37 C.F.R. § 42.108

### I. INTRODUCTION

Taiwan Semiconductor Manufacturing Company, Ltd., TSMC North America Corp., Fujitsu Semiconductor Limited, and Fujitsu Semiconductor America ("Petitioner") filed a Petition requesting *inter partes* review of claims 1–29 of U.S. Patent No. 6,896,775 B2 ("the '775 Patent"). Paper 1 ("Pet."). Zond, LLC ("Zond") timely filed a Preliminary Response. Paper 10 ("Prelim. Resp."). We have jurisdiction under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted "unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a).

Upon consideration of the information presented in the Petition and the Preliminary Response, we determine that there is a reasonable likelihood that Petitioner would prevail in challenging claims 1–29. Accordingly, pursuant to 35 U.S.C. § 314, we authorize an *inter partes* review to be instituted as to the challenged claims.

# A. Related District Court Proceedings

Petitioner indicates that the '775 Patent was asserted in *TSMC Tech.*, *Inc. v. Zond LLC*, No.1:14-cv-00721 (D. Del.) and *Zond*, *LLC v. Fujitsu Semiconductor Limited*, No. 1-14-cv-12438 (D. Mass.). Pet. 1. Petitioner also identifies other proceedings in which Zond asserted the '775 Patent. *Id*.

# B. Related Inter Partes Reviews

The following Petition for *inter partes* review also challenges the same claims, based on the same grounds of unpatentability as those in the instant proceeding: *The Gillette Co. v Zond, LLC*, Case IPR2014-00578.

In IPR2014-00578, we instituted *inter partes* review of claims 1–29 of the '775 Patent, based on the following grounds of unpatentability:

Claim(s)	Basis	References
1–7, 9–16, 18–26, 28, and 29	§ 103(a)	Wang, Mozgrin, and Kudryavtsev
8	§ 103(a)	Wang, Mozgrin, Kudryavtsev, and Kouznetsov
17	§ 103(a)	Wang, Mozgrin, Kudryavtsev, and Lantsman
27	§ 103(a)	Wang, Mozgrin, Kudryavtsev, and Li

Petitioner filed a Motion for Joinder with IPR2014-00578. Paper 4. In a separate Decision, we grant Petitioner's revised Motion, joining the instant proceeding with IPR2014-00578, and terminating the instant proceeding.

# C. Prior Art Relied Upon

Petitioner relies upon the following prior art references:

Lantsman	US 6,190,512	Feb. 20, 2001	(Ex. 1025)
Wang	US 6,413,382	July 2, 2002	(Ex. 1008)
Kouznetsov	US 2005/0092596	May 5, 2005	(Ex. 1004)
Fu	US 6,306,265	Oct. 23, 2001	(Ex. 1014)

D.V. Mozgrin, et al., *High-Current Low-Pressure Quasi-Stationary Discharge in a Magnetic Field: Experimental Research*, 21 PLASMA PHYSICS REPORTS 400–409 (1995) (Ex. 1002) (hereinafter "Mozgrin").

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A. A. Kudryavtsev and V.N. Skrebov, *Ionization Relaxation in a Plasma Produced by a Pulsed Inert-Gas Discharge*, 28(1) SOV. PHYS. TECH. PHYS. 30–35 (Jan. 1983) (Ex. 1003) (hereinafter "Kudryavtsev").

D.V. Mozgrin, *High-Current Low-Pressure Quasi-Stationary Discharge in a Magnetic Field: Experimental Research*, Thesis at Moscow Engineering Physics Institute (1994) (Ex. 1006) (hereinafter "Mozgrin Thesis").<sup>1</sup>

N. Li et al., *Enhancement of Aluminum Oxide Physical Vapor Deposition with a Secondary Plasma*, 149 Surface and Coatings Tech. 161–170 (2002) (Ex. 1010) (hereinafter "Li").

# D. Asserted Grounds of Unpatentability

Claim(s)	Basis	References
1–7, 9–26, 28, and 29	§ 103(a)	Mozgrin, Kudryavtsev, and Mozgrin Thesis
8	§ 103(a)	Mozgrin, Kudryavtsev, Mozgrin Thesis, and Kouznetsov
27	§ 103(a)	Mozgrin, Kudryavtsev, Mozgrin Thesis, and Li
1–7, 9–16, 18–26, 28, and 29	§ 103(a)	Wang, Mozgrin, and Kudryavtsev
8	§ 103(a)	Wang, Mozgrin, Kudryavtsev, and Kouznetsov
17	§ 103(a)	Wang, Mozgrin, Kudryavtsev, and Lantsman
27	§ 103(a)	Wang, Mozgrin, Kudryavtsev, and Li

Petitioner asserts the following grounds of unpatentability:

<sup>&</sup>lt;sup>1</sup> The Mozgrin Thesis is a Russian-language reference. The citations to the Mozgrin Thesis are to the certified English-language translation submitted by Petitioner (Ex. 1005).

# II. ANALYSIS

# A. Claim Construction

The parties make the same claim construction arguments The Gillette Company ("Gillette") and Zond made in IPR2014-00578. *Compare* Pet. 4–6, *with* '578 Pet. 4–5; *compare* Prelim. Resp. 13–15, *with* '578 Prelim. Resp. 13–15.

We construed several claim terms identified by Gillette and Zond in IPR2014-00578. *See* '578 Dec. 7–10. For the purposes of the instant decision, we incorporate our previous analysis and apply those claim constructions here.

# B. Obviousness over Wang, Mozgrin, and Kudryavtsev

In its Petition, Petitioner asserts the same ground of unpatentability based on the combination of Wang, Mozgrin, and Kudryavtsev, as that on which a trial was instituted in IPR2014-00578. *See* Pet. 36–57; '578 Dec. 26. Petitioner's arguments are substantively identical to the arguments made by Gillette in IPR2014-00578. *Compare* Pet. 36–57, *with* '578 Pet. 36–57. Petitioner also proffers the same Declaration of Mr. DeVito that Gillette submitted in support of its Petition. *Compare* Ex. 1011, *with* IPR2014-00578, Ex. 1011. Zond's arguments in the Preliminary Response are essentially identical to those arguments that it made in IPR2014-00578. *Compare* Prelim. Resp. 43–52, *with* '578 Prelim. Resp. 43–52.

We incorporate our previous analysis regarding the asserted ground of unpatentability based on the combination of Wang, Mozgrin, and Kudryavtsev ('578 Dec. 11–22), and determine that Petitioner has

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