

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

v.

ZOND, LLC,  
Patent Owner.

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Case IPR2014-01479  
Patent 6,896,773 B2

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

TURNER, *Administrative Patent Judge*.

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 (collectively, “Petitioner”) filed a Petition requesting an *inter partes* review of claims 1–20 and 34–39 of U.S. Patent No. 6,896,773 B2 (Ex. 1001, “the ’773 Patent”). Paper 3 (“Pet.”). Zond, LLC (“Zond”), filed a Preliminary Response. Paper 10 (“Prelim. Resp.”).

We have jurisdiction under 35 U.S.C. § 314. The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides:

THRESHOLD.—The Director may not authorize an *inter partes* review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.

Upon consideration of the Petition and Preliminary Response, we conclude that the information presented in the Petition demonstrates that there is a reasonable likelihood that Petitioner would prevail in challenging claims 1–20 and 34–39 as unpatentable under 35 U.S.C. § 103(a). Pursuant to 35 U.S.C. § 314, we hereby authorize an *inter partes* review to be instituted as to claims 1–20 and 34–39 of the ’773 Patent.

### A. Related District Court Proceedings

Petitioner indicates that the ’773 Patent was asserted in *TSMC Tech., Inc. v. Zond LLC*, No. 1:14-cv-00721 (D. Del.) and *Zond, LLC v. Fujitsu*

*Semiconductor Ltd.*, No. 1-14-cv-12438 (D. Mass.). Pet. 1. Petitioner also identifies other proceedings in which Zond asserted the '773 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 IPR2014-00580.

In IPR2014-00580, we instituted *inter partes* review of claims 1–20 and 34–39 of the '773 Patent, based on the following grounds of unpatentability:

Claim(s)	Basis	References
1, 6, and 8–20 <sup>1</sup>	§ 103(a)	Mozgrin and Fortov
5	§ 103(a)	Mozgrin, Fortov, and Kawamata
3, 4, and 34–39	§ 103(a)	Mozgrin, Fortov, and Lantsman
7	§ 103(a)	Mozgrin, Kudryavtsev, and Fortov
2	§ 103(a)	Mozgrin, Mozgrin Thesis, Fortov, and Raizer

*See* IPR2014-00580, Paper 11, “'580 Dec.”

Petitioner filed a Motion for Joinder, seeking to join with IPR2014-00580. Paper 5. In a separate decision, we grant Petitioner’s Motion for

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<sup>1</sup> We note that the Decision on Institution for IPR2014-00580 includes claims 36–39 under this instituted ground ('580 Dec. 46), but we previously had acknowledged that Gillette had made no showing against those claims in its Petition. *Id.* at 8, n.3. We clarify that claims 36–39 are not included in this instituted ground.

Joinder, joining the instant proceeding with IPR2014-00580, and terminating the instant proceeding.

*C. Prior Art Relied Upon*

Petitioner relies upon the following prior art references:

Wang	US 6,413,382 B1	July 2, 2002	(Ex. 1003)
Fu	US 6,306,265 B1	Oct. 23, 2001	(Ex. 1007)
Lantsman	US 6,190,512 B1	Feb. 20, 2001	(Ex. 1008)
Kawamata	US 5,958,155	Sept. 28, 1999	(Ex. 1009)
Chiang	US 6,398,929 B1	June 4, 2002	(Ex. 1011)

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”).

D.V. Mozgrin, *High-Current Low-Pressure Quasi-Stationary Discharge in a Magnetic Field: Experimental Research*, Thesis at Moscow Engineering Physics Institute (1994) (Ex. 1015) (hereinafter “Mozgrin Thesis”).<sup>2</sup>

*Interaction of Low-Temperature Plasma With Condensed Matter, Gas, and Electromagnetic Field* in (III) ENCYCLOPEDIA OF LOW-TEMPERATURE PLASMA, (V.E. Fortov ed., 2000) (Ex. 1004) (hereinafter “Fortov”).<sup>3</sup>

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. 1006) (hereinafter “Kudryavtsev”).

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<sup>2</sup> The Mozgrin Thesis is a Russian-language reference (Ex. 1016). The citations to the Mozgrin Thesis are to the certified English-language translation submitted by Petitioner (Ex. 1015).

<sup>3</sup> Fortov is a Russian-language reference (Ex. 1010). The citations to Fortov are to the certified English-language translation submitted by Petitioner (Ex. 1004).

*D. Asserted Grounds of Unpatentability*

Petitioner asserts the following grounds of unpatentability:

Claim(s)	Basis	References
1, 6, and 8–20 <sup>4</sup>	§ 103(a)	Mozgrin and Fortov
5	§ 103(a)	Mozgrin, Fortov, and Kawamata
1, 6, and 8–20	§ 103(a)	Wang and Fortov
5	§ 103(a)	Wang, Fortov, and Kawamata
3, 4, and 34–39	§ 103(a)	Mozgrin, Fortov, and Lantsman
3, 4, and 34–39	§ 103(a)	Wang, Fortov, and Lantsman
7	§ 103(a)	Mozgrin, Kudryavtsev, and Fortov
7	§ 103(a)	Wang, Mozgrin, Kudryavtsev, and Fortov
2	§ 103(a)	Mozgrin, Mozgrin Thesis, Fortov, and Raizer
2	§ 103(a)	Wang, Fortov, Fu, and Raizer

## II. ANALYSIS

### *A. Claim Construction*

The parties make the same claim construction arguments The Gillette Company (“Gillette”) and Zond made in IPR2014-00580. *Compare* Pet. 4–

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<sup>4</sup> We note under this Ground, Petitioner includes claims 36–39 which depend from independent claim 34, in the headings. Pet. 13. As in IPR2014-00580, these claims are not argued in the ground, nor is independent claim 34 addressed under this ground. Accordingly, we determine this was an inadvertent typographical error and do not address these claims in the discussion of this ground.

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