

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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FUJITSU SEMICONDUCTOR LIMITED,  
FUJITSU SEMICONDUCTOR AMERICA, INC.,  
ADVANCED MICRO DEVICES, INC., RENESAS ELECTRONICS  
CORPORATION, RENESAS ELECTRONICS AMERICA, INC.,  
GLOBALFOUNDRIES U.S., INC., GLOBALFOUNDRIES DRESDEN  
MODULE ONE LLC & CO. KG, GLOBALFOUNDRIES DRESDEN  
MODULE TWO LLC & CO. KG, TOSHIBA AMERICA ELECTRONIC  
COMPONENTS, INC., TOSHIBA AMERICA INC., TOSHIBA  
AMERICA INFORMATION SYSTEMS, INC.,  
TOSHIBA CORPORATION, and  
THE GILLETTE COMPANY,  
Petitioners,

v.

ZOND, LLC,  
Patent Owner

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IPR2014-00827<sup>1</sup>  
Patent 6,853,142 B2

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**PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE**

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<sup>1</sup> Cases IPR 2014-00865, IPR 2014-01015, and IPR 2014-01063 have been joined with the instant proceeding.

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    B. A person of ordinary skill in the art would have combined Wang and Kudryavtsev ..... 3

    C. Wang in view of Kudryavtsev teaches “a cathode that is positioned adjacent to the anode and forming a gap there between” recited in claim 21. .... 6

    D. Wang in view of Kudryavtsev teaches “the power supply generates a constant power” recited in claim 22, “applying the electric field at a constant power” recited in claim 33, and “the power supply generates a constant voltage” recited in claims 23 and 34. .... 9

    E. Wang in view of Kudryavtsev teaches “a pulsed electric field” recited in claim 25. .... 11

    F. Wang in view of Kudryavtsev teaches “the ionization source is chosen from the group comprising an electrode coupled to a DC power supply” recited in claim 29. .... 12

G. Wang in view of Kudryavtsev teaches “selecting at least one of a pulse amplitude and a pulse width of the electrical pulse in order to increase an ionization rate of the strongly-ionized plasma” recited in claim 36..... 12

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**Cases**

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37 C.F.R. § 42.23 ..... 1

**PETITIONER'S EXHIBIT LIST**

April 16, 2015

<b>Exhibit</b>	<b>Description</b>
1301	U.S. Patent No. 6,853,142 ("142 Patent")
1302	Kortshagen Declaration ("Kortshagen Decl.")
1303	D.V. Mozgrin, <i>et al</i> , <u>High-Current Low-Pressure Quasi-Stationary Discharge in a Magnetic Field: Experimental Research</u> , Plasma Physics Reports, Vol. 21, No. 5, pp. 400-409, 1995 ("Mozgrin")
1304	A. A. Kudryavtsev and V.N. Skerbov, <u>Ionization relaxation in a plasma produced by a pulsed inert-gas discharge</u> , Sov. Phys. Tech. Phys. 28(1), pp. 30-35, January 1983 ("Kudryavtsev")
1305	U.S. Pat. No. 6,413,382 ("Wang")
1306	File History for U.S. Pat. No. 6,853,142, Office Action dated October 7, 2003 ("10/07/03 Office Action")
1307	File History for U.S. Pat. No. 6,853,142, Response dated March 8, 2004 ("03/08/04 Response")
1308	File History for U.S. Pat. No. 6,853,142, Notice of Allowance dated March 29, 2004 ("03/29/04 Allowance")
1309	04/21/08 Response in EP 1560943
1310	U.S. Patent No. 7,147,759 ("759 Patent")
1311	File History for U.S. Pat. No. 7,147,759, Response dated May 2, 2006 ("05/02/06 Response of '759 Patent File History")
1312	Plasma Etching: An Introduction, by Manos and Flamm, Academic Press (1989) ("Manos")
1313	The Materials Science of Thin Films, by Ohring M., Academic Press

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