

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.  
U.S. Patent No. 6,853,142  
IPR Case No. IPR2014-00821<sup>1</sup>

**PETITIONER'S RESPONSE TO PATENT OWNER'S MOTION FOR  
OBSERVATION ON CROSS-EXAMINATION OF  
PETITIONER'S REPLY WITNESS**

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<sup>1</sup> Case Nos. IPR2014-00863, IPR2014-01013, and IPR2014-01057 have been joined with this proceeding.

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## **I. INTRODUCTION**

Petitioner submits this response to Patent Owner Zond's Observations on Cross-Examination of Dr. Overzet, Paper No. 42 ("Observation"). Patent Owner presents eight observations on Dr. Overzet's testimony. While Petitioner believes that the testimony will be appropriately viewed and weighed by the Board, the specific observations presented by Patent Owner are irrelevant and mischaracterize the testimony of Dr. Overzet, as specified below, and therefore are not probative of any material issue before the Board.

## **II. RESPONSES TO OBSERVATIONS ON DR. OVERZET'S TESTIMONY**

### **A. Response to Observation 1**

Patent Owner contends that Dr. Overzet's testimony indicates that his field of expertise is inadequate to support Petitioner's positions with respect to "gas laser references" such as Kudryavtsev. Observation at 2. As a threshold matter, Patent Owner's observation is based on deposition testimony of Dr. Overzet taken by Patent Owner regarding U.S. Patent No. 7,147,759 in different IPR proceedings. Patent Owner is permitted to submit its motion for observations in those proceedings, not the instant ones.

Notwithstanding its threshold irrelevance, the cited testimony merely indicates that Dr. Overzet is not an expert in all aspects of "gas laser design." Deposition of Dr. Overzet re U.S. Patent No. 7,147,759 ("759 Depo. Tr.") at

107:6-8 (IPR2014-00781 Ex. 2012). On the other hand, Dr. Overzet testified that “I am an expert in the generation of plasma; furthermore all of the articles that we've gone through with respect to the '759 patent involve the generation of plasma.” *Id.* at 109:14-18 (IPR2014-00781 Ex. 2012). In other words, Dr. Overzet is an expert in the relevant field for the patent at issue and he applies his expert opinion when concluding that it would be obvious to combine references that pertain to plasma generation such as Kudryavtsev. *See* IPR2014-00781 Overzet Dec. at ¶¶ 55-59 (Ex. 1240).

Finally, Patent Owner's characterization of Kudryavtsev as a reference “directed to gas lasers” is an incorrect conclusion contrived only to attack Dr. Overzet's qualification as an expert purporting to testify about “gas laser design.” Observation at 2; '759 Depo. Tr. at 107:6-8 (IPR2014-00781 Ex. 2012). Kudryavtsev explicitly states that its model emerges from “the study of ionization relaxation in a plasma when the external electric field suddenly increases” and that the model is applicable “whenever a field is suddenly applied to a weakly ionized gas.”<sup>2</sup> Kudryavtsev at p. 30, left col., ¶ 1; p. 34, right col. final ¶ (IPR2014-00819 Ex. 1204). Thus, Kudryavtsev is directed to ionization relaxation mechanics which

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<sup>2</sup> The general applicability of Kudryavtsev includes gas lasers, but is not limited to them. Kudryavtsev at p. 34, right col., last ¶ (“[The modeled effects] must be allowed for when studying emission mechanisms in pulsed gas lasers, gas breakdown, laser sparks, etc.”) (IPR2014-00819 Ex. 1204).

falls within Dr. Overzet's plasma generation expertise. As a result, Zond's limiting Kudryavtsev to application to gas lasers is an unsupported conclusion which is irrelevant to this proceeding.

**B. Response to Observation 2**

Patent Owner contends that Dr. Overzet's testimony indicates that "the flow of gas [in Wang] is far from the strongly-ionized plasma at the upper end of the chamber" which supports Patent Owner's argument that the gas does not diffuse the strongly-ionized plasma to the extent that it allows additional power to be absorbed. Observation at 3. Patent Owner's observation draws a self-serving conclusion that has no support from the cited testimony.

The excerpt cited by Patent Owner merely shows that Dr. Overzet agrees with counsel for Patent Owner that: (1) gas enters Wang's system at the lower right, (2) Wang's system includes a vacuum system and a pumping port, and (3) the vacuum system pumps gas out of Wang's chamber at the pumping port location. Deposition Transcript of Dr. Overzet re U.S. Patent No. 6,853,142 ("142 Depo. Tr.") at 6:5-7:5 (Ex. 2012).

Nowhere in the cited testimony does Dr. Overzet opine on what the feed gas does after it is introduced in Wang's system and before it is pumped out by the vacuum system. Despite this, Patent Owner concludes that the testimony indicates that the feed gas flow is far from the strongly-ionized plasma. Observation at 3. In

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