

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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THE GILLETTE COMPANY, FUJITSU SEMICONDUCTOR  
LIMITED, and FUJITSU SEMICONDUCTOR AMERICA, INC.,  
Petitioners

v.

ZOND, LLC,  
Patent Owner

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Case IPR2014-00580<sup>1</sup>  
U.S. Patent 6,896,773

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**PATENT OWNER ZOND'S OBSERVATIONS ON  
CROSS-EXAMINATION OF DR. BRAVMAN**

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<sup>1</sup> Case IPR2014-01479 has been joined with IPR2014-00580.

Patent Owner, Zond LLC (“Zond”), hereby files observations on the testimony given by Petitioners’ Declarant Dr. Bravman (Exhibit 2013) at a deposition held on April 22, 2015.

***(1) Testimony From Dr. Bravman Indicating That It Would Not Have Been Obvious To Combine Either Lantsman Or Kawamata With The Other Asserted Prior Art To Achieve The Invention Claimed In The ‘773 Patent:*** At the following transcript locations (Exhibit 2013), when asked questions relating to the differences between Lantsman or Kawamata and the claimed invention of the ‘773 patent, Dr. Bravman testified that neither Lantsman nor Kawamata teaches a pulsed power supply, that Lantsman instead teaches two DC power supplies and that he had no opinion on whether Lantsman or Kawamata generates strongly ionized plasma. The testimony is relevant because it shows that the Petitioners did not identify objective evidence tending to establish that the teachings of Lantsman’s dual power supply or Kawamata could have been used in a system that uses a pulsed power supply and generates a strongly ionized plasma, like the claimed invention of the ‘773 patent:

Q. Now, Lantsman does not teach a pulsed power supply; is that right?

A. It does not -- *it does not describe the power supplies as capable of pulsing*, that's right. (Exhibit 2013, p. 11, ll. 10-14, emphasis added).

...

Q. ... in your opinion, does the device that's disclosed in Lantsman generate a strongly ionized plasma?

A. ... *I don't have an opinion today whether or not it constitutes a strongly ionized plasma.* (Exhibit 2013, p. 13, l. 11 – p. 14, l. 7, emphasis added).

...

Q. Is one of Lantsman's power supplies a DC power supply that is identified by the reference number 10?

A. Yes.

Q. And is the other power supply in Lantsman a secondary DC power supply that is identified by the reference number 32?

A. Yes. (Exhibit 2013, p. 14, ll. 8-15).

...

Q. *Kawamata makes no mention of applying a voltage pulse, right?*

A. No, *that's correct.* (Exhibit 2013, p. 17, l. 24 – p. 18, l. 2, emphasis added).

...

Q. In your opinion, does the device that's described in Kawamata generate strongly ionized plasma?

A. I haven't offered an opinion about that because, again, that's a

matter of definitions. It would be my opinion that Kawamata is describing a successful application of sputtering technology to this particular material. But *I have not offered an opinion about whether that would be called or that would happen through the application of high density plasma or not.* (Exhibit 2013, p. 18, ll. 14 – 25, emphasis added).

***(2) Testimony From Dr. Bravman Indicating That Fortov, Mozgrin, and Kudryavtsev Do Not Teach “choosing an amplitude and rise time of a voltage pulse to cause a sputtering yield to be nonlinearly related to a temperature of a sputtering target,” As Claimed In The ‘773 Patent:*** At the following transcript locations (Exhibit 2013), when asked questions relating to the claim limitation of “choosing an amplitude and rise time of a voltage pulse to cause a sputtering yield to be nonlinearly related to a temperature of a sputtering target,” Dr. Bravman testified that neither Fortov, Mozgrin nor Kudryavtsev teaches this claim limitation. The testimony is relevant because it undermines the Petitioners’ position that this claim limitation is taught by the combination of these references:

***Q. Does Fortov disclose a device that performs sputtering?***

***A. No,*** this reference is more fundamental scientific work that is discussing sputtering yield as a function of many variables.

***Q. Does Fortov teach choosing an amplitude and rise time of a voltage***

*pulse to cause a sputtering yield to be nonlinearly related to a temperature of a sputtering target?*

MR. MAIER: Objection to form; calls for a legal conclusion.

A. *From a technical viewpoint, no.* Again, it is talking about various aspects of sputtering yield including temperature dependents.

(Exhibit 2013, p. 21, ll. 8-24, emphasis added).

...

Q. ... Mozgrin does not teach that an amplitude and a rise time of the voltage pulse chosen to cause a sputtering yield to be nonlinearly related to the temperature of the sputtering target, right?

MR. MAIER: Objection to form.

A. *Mozgrin does not teach specifically that there is a nonlinear dependence of sputtering yield with temperature of the target.*

Q. And Mozgrin does not mention any relation between sputtering yield and the temperature of the sputtering target, right?

MR. MAIER: Object to form.

A. I believe that's correct. (Exhibit 2013, p. 29, ll. 7-22, emphasis added).

...

Q. So Mozgrin makes no mention of the temperature of the target

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