

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., GLOBAL FOUNDRIES 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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Case IPR2014-828, 829, 917, 1073, and 1076  
U.S. Patent 6,805,779

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

Patent Owner, Zond LLC (“Zond”), hereby files observations on the testimony given by Petitioners’ Declarant Dr. Kortshagen (Exhibit 2006) at a deposition held on May 5, 2015.

***(1) Testimony From Dr. Kortshagen Indicating That Iwamura Does Not Teach A Magnetic Field:*** At the following transcript location (Exhibit 2006), when asked questions relating to Iwamura, Dr. Kortshagen testified that Iwamura does not teach a magnetic field. The testimony is relevant because many of the claims of U.S. patent 6,805,779 (“the ‘779 patent”) recite limitations requiring a magnetic field and therefore, the testimony indicates that Iwamura cannot possibly teach these limitations:

Q. Is it correct that Iwamura does not discuss the use of a magnetic field?

MR. TENNANT: Objection to form.

THE WITNESS: I believe it is correct that Iwamura does not discuss the use of a magnetic field.

(Exhibit 2006, p. 7, ll. 13-18)

***(2) Testimony From Dr. Kortshagen Indicating That In Pinsley, The Magnetic Field Would Not Have Any Effect On The Motion Of Any Ground State Atoms In The Absence Of A Discharge:*** At the following transcript locations (Exhibit 2006), when

asked questions relating to the magnetic field in Pinsley, Dr. Kortshagen testified that the magnetic field would not have any effect on the motion of any ground state atoms in the absence of a discharge. This testimony is relevant because it indicates that the magnetic field in Pinsely does not effect the volume of ground state atoms and therefore, does not teach many of the claim limitations of the '779 patent that require generating a magnetic field proximate to a volume of ground state atoms:

Q. Are there any ground state atoms in that feed gas?

A. Commonly, the majority of atoms in a feed gas will likely be in the ground state.

Q. So what, if anything, would be the effect of the magnetic field in Pinsley on those ground state atoms?

A. Are you asking the question whether there is an effect on the ground state atoms by the magnetic field in the absence of a discharge?

Q. We could start there.

A. Okay.

Q. So let's say in the absence of a discharge, that would presume the absence of an electric field, right?

A. It would presume the absence of a current that could still be an electric field too weak to actually maintain or ignite a plasma.

Q. Okay. So under those conditions, what if anything would be the

effect of the magnetic field on the ground state atoms coming from the source?

A. ... part of my answer is that there is no effect on the ground state atoms that would in any way affect their motion. And I'm saying I'm thinking on a tangent because you could imagine a gas with ground state atoms which have some kind of a magnetic moment, but I don't think that this is what you're referring to, right?

Q. I'm sorry, what do you mean by a magnetic moment?

A. Well, I mean some kind of magnetic moment yeah, I mean, I cannot think of any kind of gas which would have something like this. A gas like argon, helium would not feel any effect by the magnetic field.

(Exhibit 2006, p. 21, l. 3 – p. 22, l. 16).

***(3) Testimony From Dr. Kortshagen Indicating That Angelbeck Does Not Teach***

***A Feed Gas:*** At the following transcript location (Exhibit 2006), when asked questions relating to Iwamura, Dr. Kortshagen testified that Angelbeck does not teach a feed gas. The testimony is relevant because many of the claims of the '779 patent recite limitations requiring a feed gas and therefore, the testimony indicates that Angelbeck cannot possibly teach these limitations:

Q. Now, within the tube shown in Figure 1 there is a gas, correct?

A. Yes, that is correct.

Q. The ends of the tube are closed so the gas is not flowing, right?

A. In this particular configuration shown in Figure 1 the gas is not flowing, that is correct.

(Exhibit 2006, p. 29, l. 22, p. 30, l. 5)

*(4) Testimony From Dr. Kortshagen Indicating That In Angelbeck, The Magnetic Field Would Not Have Any Effect On The Motion Of Any Ground State Atoms In The Absence Of A Current Flow:* At the following transcript locations (Exhibit 2006), when asked questions relating to the magnetic field in Angelbeck, Dr. Kortshagen testified that the magnetic field would not have any effect on the motion of any ground state atoms in the absence of a current flow. This testimony is relevant because it indicates that the magnetic field in Angelbeck does not effect the volume of ground state atoms and therefore, does not teach many of the claim limitations of the '779 patent that require generating a magnetic field proximate to a volume of ground state atoms:

Q. In the absence of any current flow, what, if anything, would be the effect of the magnetic field on those ground state atoms?

MR. TENNANT: Objection to form.

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