IPR2014-01072 U.S. Patent No. 6,805,779

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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., AND TOSHIBA CORPORATION

Petitioner

v.

ZOND, LLC Patent Owner

Case IPR2014-01072 Patent 6,805,779

ZOND LLC'S PATENT OWNER PRELIMINARY RESPONSE PURSUANT TO 37 C.F.R. § 42.107(a)

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1	The combination of Mozgrin, Kudryavtsev, Pinsley, and Iwamura does not teach "an excited atom source that receives ground state atoms from the	

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	feed gas source" as recited in independent claim 1 and as similarly recited in independent claim 45
2.	The combination of Mozgrin, Kudryavtsev, Pinsley and Iwamura does not teach "the excited atom source comprising a magnet that generates a magnetic field for substantially trapping electrons proximate to the ground state atoms" as recited in independent claim 1 and as similarly recited in independent claims 41 and 46
3.	The combination of Mozgrin, Kudryavtsev, Pinsley, and Iwamura does not teach "a plasma chamber that is coupled to the excited atom source, the plasma chamber confining a volume of excited atoms generated by the excited atom source" as recited in independent claim 1 and as similarly recited in independent claim 45.
4.	The combination of Mozgrin, Kudryavtsev, Pinsley, and Iwamura does not teach "an energy source that is coupled to the volume of excited atoms confined by the plasma chamber" as recited in independent claim 1 and as similarly recited in independent claim 45
5.	The combination of Iwamura and Angelbeck does not teach a "plasma generator that generates a plasma with a multi-step ionization process," as recited in independent claim 1 and as similarly recited in claims 41, and 45
6.	The combination of Iwamura and Angelbeck does not teach "the excited atom source comprising a magnet that generates a magnetic field for substantially trapping electrons proximate to the ground state atoms," as recited in independent claim 1 and as similarly recited in claim 4143
7.	The combination of Iwamura and Angelbeck does not teach "the energy source raising an energy of excited atoms in the volume of excited atoms so that at least a portion of the excited atoms in the volume of excited atoms is ionized," as recited in independent claim 1 and as similarly recited in claims 41 and 45
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I. INTRODUCTION

The Board should deny the present request for *inter partes* review of U.S. Patent No. 6,805,779 ("the '779 patent") because there is not a reasonable likelihood that the Petitioner will prevail at trial with respect to at least one claim of the '779 patent.¹

Indeed, there are five different and independent groups of reasons why the Petitioner cannot prevail. First, the reference that is primarily relied upon by the Petitioner (*i.e.*, Mozgrin) was already considered by the Examiner and overcome during the prosecution of the application that led to the issuance of the '779 patent. Indeed, Mozgrin was considered by 6 different examiners and overcome during the prosecution of 9 other patents that are related to the '779 patent over nearly a 10 year period.²

¹ 35 U.S.C. § 314(a).

² Examiners Douglas Owens, Tung X. Le, Rodney McDonald, Wilson Lee,
Don Wong, and Tuyet T. Vo allowed U.S. Patents 7,147,759, 7,808,184,
7,811,421, 8,125,155, 6,853,142, 7,604,716, 6,896,775, 6,896,773, 6,805,779,
and 6,806,652 over Mozgrin and Wang over nearly a decade from the time
...Continued

Second, the Petitioner's obviousness rejections are all predicated on the false assumption that a skilled artisan could have achieved the combination of (i) a feed gas source comprising ground state atoms; (ii) an excited atom source that generates excited atoms from the ground state atoms and has a magnet that traps electrons near the ground state atoms; (iii) a plasma chamber that confines excited atoms; and (iv) an energy source that ionizes the confined excited atoms in a multi-step ionization process, as required by independent claims 1, 41, 45 and 46 of the '779 patent by combining the teachings of Mozgrin with Kudryavtsev and Pinsley.³

But these three references disclose very different structures and processes. Mozgrin teaches two different "[d]ischarge device configurations: (a) planar magnetron and (b) shaped-electrode configuration."⁴ Mozgrin further discloses a "square voltage pulse application to the gap."⁵ Kudryavtsev

Continued from previous page that the application for the '759 patent was filed on 9/30/2002 to the time that the '155 patent issued on 2/28/2012.

³ Petition at pp. 20-42.

⁴ Mozgrin, Ex. 1303 at Fig. 1 caption.

⁵ *Id.* at p. 402, col. 2, ¶ 2.

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