IPR2014-01070 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 IPR2014-01070 Patent 6,805,779

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

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		molecules to substantially trap electrons proximate to the volume of ground state molecules," as recited in independent claim 30 and as similarly recited in independent claim 40
	2.	The combination of Mozgrin, Kudryavtsev and Pinsley does not teach "raising an energy of the metastable atoms so that at least a portion of the volume of metastable atoms is ionized," as recited in independent claim 30 and as similarly recited in independent claim 40
	3.	The combination of Iwamura and Angelbeck does not teach a "generating a plasma with a multi-step ionization process," as recited in independent claim 30 and as similarly recited in claim 40
	4.	The combination of Iwamura and Angelbeck does not teach "generating a magnetic field proximate to a volume of ground state atoms to substantially trap electrons proximate to the volume of ground state atoms," as recited in independent claim 30 and as similarly recited in claim 40
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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 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. Second, the Petitioner's obviousness rejections are all predicated on the false assumption that a skilled artisan could have achieved the combination of (i) generating a magnetic field proximate to a volume of ground state atoms to substantially trap electrons proximate to the volume of ground state atoms; (ii) generating a volume of metastable atoms from the volume of ground state atoms; and (iii) raising an energy of the metastable atoms so that some of the metastable atoms are ionized, thereby generating a plasma with a multi-step ionization process, as required by independent claims 30 and 40 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 teaches a third type of discharge device configuration in which the "discharge occurred inside a cylindrical tube of diameter 2R = 2.5 cm and the distance between the electrodes was L = 52 cm." Kudryavtsev's system does not even

³ Petition at pp. 18-40.

⁴ Mozgrin, Ex. 1003 at Fig. 1 caption.

⁵ *Id.* at p. 402, col. 2, ¶ 2.

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