

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LTD,
TSMC NORTH AMERICA CORP.,
FUJITSU SEMICONDUCTOR LIMITED AND
FUJITSU SEMICONDUCTOR AMERICA, INC.

Petitioner

v.

ZOND, LLC
Patent Owner

Case IPR2014-01479
Patent 6,896,773

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

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I. INTRODUCTION

The Board should deny the present request for *inter partes* review of U.S. Patent No. 6,896,773 (“the ’773 patent”) because there is not a reasonable likelihood that the Petitioner will prevail at trial with respect to at least one claim of the ’773 patent.¹

Indeed, there are six different and independent groups of reasons why the Petitioner cannot prevail. First, the references that are primarily relied upon by the Petitioner (*i.e.*, Mozgrin and Wang) were already considered by the Examiner and overcome during the prosecution of the application that led to the issuance of the ’773 patent. These references were considered by 6 different examiners and overcome during the prosecution of 9 other patents that are related to the ’142 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) a cathode assembly including a sputtering target; (ii) an ionization source that generates a weakly-ionized plasma from a feed gas, and (iii) a power supply that generates a voltage pulse between the anode and the cathode assembly that creates a strongly ionized plasma, an amplitude and a rise time of the voltage pulse being chosen to increase a density of ions in the strongly ionized plasma enough to generate sufficient thermal energy in the sputtering target to cause a sputtering yield to be non-linearly related to a temperature of the sputtering target, as required by each of the independent claims challenged in this Petition (i.e., claims 1 and 34) by combining the teachings of either Mozgrin or Wang with Fortov, Kawamata, Lantsman, Kudryavtsev, Mozgrin Thesis, and/or Raiser.³

But these references disclose very different structures and processes. For example, Mozgrin teaches two different "[d]ischarge device configurations: (a) planar magnetron and (b) shaped-electrode configuration."⁴ Mozgrin further

³ Petition at pp. 13-60.

⁴ Mozgrin, Ex. 1002 at Fig. 1 caption.

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