IPR2014-00818 U.S. Patent No. 6,853,142

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

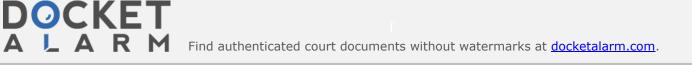
Petitioner

v.

ZOND, LLC Patent Owner

Case IPR2014-00818 Patent 6,853,142

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



IPR2014-00818 U.S. Patent No. 6,853,142

TABLE OF CONTENTS

I. INTRODUCTION1		
II. TECHNOLOGY BACKGROUND		
А.	Overview Of Magnetron Sputtering Systems	
B.	The '142 patent: Dr. Chistyakov invents a new apparatus containing an ionization source to generate weakly ionized plasma, an electrical pulse applied to the weakly ionized plasma to create strongly ionized plasma and a gas line to supply feed gas to the strongly-ionized plasma to diffuse the strongly-ionized plasma, and allow additional power to be absorbed by the strongly ionized plasma	
C.	The Petitioner Mischaracterized The File History15	
III. SUMMARY OF THE PETITIONER'S PROPOSED GROUNDS FOR REVIEW18		
IV. PATENT OWNER'S CLAIM CONSTRUCTIONS19		
А.	The construction of "weakly ionized plasma" and "strongly ionized plasma."20	
V. THERE IS NO REASONABLE LIKELIHOOD OF PETITIONER PREVAILING AS TO A CHALLENGED CLAIM OF THE '142 PATENT		
А.	The Petition failed to demonstrate any motivation to combine	
1. Scope and content of prior art		
	a. Lantsman – U.S. Pat. No. 6,190,512 (Ex. 1004)26	
	 Mozgrin – D.V. Mozgrin, et al, High-Current Low-Pressure Quasi- Stationary Discharge in a Magnetic Field: Experimental Research, Plasma Physics Reports, Vol. 21, No. 5, pp. 400-409, 1995 (Ex. 1003)27 	
	c. Wang – U.S. Patent No. 6,413,382 (Exhibit 1005)29	
2.	The Petitioner Fails To Show That It Would Have Been Obvious To Combine The DC Power System Without Pulses Of Lantsman With The Pulsed Power System Of Either Mozgrin or Wang	
В.	The Petition fails to demonstrate how the alleged combinations teach every element of the challenged claims	
1.	The cited references do not teach "a gas line that supplies feed gas to the strongly-ionized plasma, the feed gas diffusing the strongly-ionized plasma, thereby allowing additional power from the pulsed power supply	

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IPR2014-00818 U.S. Patent No. 6,853,142

	to be absorbed by the strongly ionized plasma," as recited in independent claim 1 and as similarly recited in independent claim 10	
2.	The cited references do not teach a "the gas line supplies additional feed gas that exchanges the weakly-ionized plasma while applying the electrical pulse across," as recited in claim 3 and as similarly recited in claim 12	
3.	The cited references do not teach a "a power supply that supplies power to the weakly-ionized plasma though an electrical pulse applied across the weakly-ionized plasma," and "the power supply generates a constant power," as required by dependent claim 4	
C.	The Petition Failed to Identify Any Compelling Rationale for Adopting Redundant Grounds of Rejection Under Both Mozgrin and Wang48	
D.	The Petition failed to set forth a proper obviousness analysis	
VI. CONCLUSION		

I. INTRODUCTION

The Petitioner has represented in a motion for joinder that this petition "is identical to the IPR Intel no. IPR2014-00494 in all substantive respects, includes identical exhibits, and relies upon the same expert declarant." Accordingly, based upon that representation, the Patent Owner opposes review on the same basis presented in opposition to Intel's request no. IPR2014-00494 which is reproduced below:

The Board should deny the present request for *inter partes* review of U.S. Patent No. 6,853,142 ("the '142 patent") because there is not a reasonable likelihood that the Petitioner will prevail at trial with respect to at least one claim of the '142 patent.¹

Indeed, there are five 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 '142 patent. These references were considered by 6

¹ 35 U.S.C. § 314(a).

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

Second, the Petitioner's obviousness rejections are all predicated on the false assumption that a skilled artisan could have achieved the combination of i) an ionization source generating a weakly-ionized plasma from feed gas, ii) an electrical pulse having a magnitude and a rise-time that is sufficient to increase the density of the weakly-ionized plasma to generate a stronglyionized plasma, and iii) a gas line supplying feed gas to diffuse the stronglyionized plasma to thereby allow additional power from the pulsed power supply to be absorbed by the strongly-ionized plasma, as required by independent claim 1 of the '142 patent by combining the teachings of either Mozgrin or Wang and Lantsman.³ But these three references disclose very 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.

³ Petition at pp. 14-60.

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