

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FUJITSU SEMICONDUCTOR LIMITED AND
FUJITSU SEMICONDUCTOR AMERICA, INC.
Petitioner

v.

ZOND, LLC
Patent Owner

U.S. Patent No. 7,604,716

Inter Partes Review Case No. 2014-00849

**PATENT OWNER'S PRELIMINARY RESPONSE
UNDER 37 CFR § 42.107(a)**

TABLE OF CONTENTS

I. INTRODUCTION.....	1
II. TECHNOLOGY BACKGROUND	5
A. Overview of Plasma Generation Systems	5
B. The '716 Patent: Dr. Chistyakov Invents an Improved Plasma Source.	7
III. SUMMARY OF PETITIONER'S PROPOSED GROUNDS	15
IV. CLAIM CONSTRUCTION UNDER 37 C.F.R. §§ 42.104(B)(3).....	15
A. Construction of "Weakly Ionized Plasma" and "Strongly Ionized Plasma"	15
B. Construction of "Ionizing a Feed Gas in a Chamber"	17
C. Construction of "a Weakly Ionized Plasma that Substantially Eliminates the Probability of Developing an Electrical Breakdown Condition in the Chamber"	18
V. PETITIONER HAS FAILED TO SHOW A REASONABLE LIKELIHOOD OF PREVAILING.	20
A. Defects in All Grounds: The Petition Violates Page Restrictions by Incorporating Over 70 Pages of Claim Charts.....	20
B. Defects Common to Grounds I - III: Petitioner Failed To Demonstrate That Parent Claim 14 is Obvious In view of Mozgrin Combined with Kudryavtsev	22
1. Overview of Independent Claim 14.....	22
2. Legal Standards for Comparison of the Claim to the Prior Art.	24
3. Scope and Content of Prior Art.	25
a. Overview of Mozgrin	26
b. Overview of Kudravtsev	27
4. Differences Between Claim 14 and the Prior Art.	31
a. Differences Between Mozgrin and Claim 14	31

b.	Petitioner Failed to Prove Inherency	34
c.	Incompatibilities of Kudravytsev and Mozgrin	36
d.	Differences Between Claim 14 and Kudravytsev	39
e.	Conclusion	39
C.	Defects Common to Grounds IV - VI: Petitioner Failed To Demonstrate That Parent Claim 14 is Obvious In view of Wang Combined with Kudryavtsev	40
1.	Overview of Wang.	40
2.	Differences Between Wang and the Claims.....	42
3.	Differences Petitioner Failed To Prove Wang Inherently Implements the Claimed Type of Ionization.	44
4.	Conclusion: Petitioner Fails to Show a Reasonable Likelihood of Prevailing on Grounds IV – VI Because They Fail to shown that Claim 14 is Obvious in View of Wang Combined With Kudryavtsev.	46
D.	Defect In Grounds II: Petitioner Failed To Demonstrate That Claims 19, 20 are Obvious In view of Mozgrin and Kudryavtsev Combined With Lantsman.....	46
1.	Overview of the Claim Features at Issue.	46
2.	Differences Between Mozgrin and Claims 19, 20	51
3.	Overview of Lantsman	52
4.	Differences Between Lantsman and Claims 19, 20.....	54
5.	Conclusion: Petitioner Fails to Show a Reasonable Likelihood that Claims 19 and 20 are Obvious in View of Mozgrin Combined With Lantsman.	56
E.	Defect In Ground V: Petitioner Failed To Demonstrate That Claims 19, 20 are Obvious In view of Wang and Kudryavtsev Combined With Lantsman	57
VI.	CONCLUSION.....	60

I. Introduction

The Petitioner has represented in a motion for joinder that this petition “is identical to the Intel IPR no. IPR2014-00523 in all substantive respects, includes identical exhibits, and relies upon the same export declarant.”

Accordingly, based upon that representation, the Patent Owner opposes review on the same basis presented in opposition to Intel’s request no. IPR-2014-00523, which is reproduced below:

The present petition for *inter partes* review of U.S. Patent No. 7,604,716 (“the ‘716 patent”) is the last of four petitions filed by Intel challenging the ‘716 patent. This petition challenges six claims (19 – 24) that depend from independent claim 14, which Intel challenges in a separate petition number IPR2014-00522. Since the claims challenged here (19 – 24) all incorporate the limitations of parent claim 14, the Petition reiterates the same arguments asserted against claim 14 in the related IPR2014-00522. Since this Petition offers no new art or evidence against the elements of claim 14, the Petition should be denied on the basis of our response to IPR2014-00522, which we largely reproduce in this response.

In short, parent claim 14 requires, inter alia, a multi-stage ionization process in which neutral atoms in a weakly ionized gas are first excited from the ground state before being ionized to form a strongly ionized plasma, all

without developing an electrical breakdown condition. This is in contrast to a more conventional ionization process in which atoms are ionized directly from the ground state, without first achieving an excited state.

The Petition challenges parent claim 14 based on two prior art references, Mozgrin¹ and Wang,² that were already considered by the Patent Office, combined with a prior art patent by Kudryavtsev.³ Neither Mozgrin nor Wang discuss or even hint of such an ionization process. So the Petition cites to Kudryavtsev as alleged proof that Mozgrin and Wang inherently implement the claimed multi-stage ionization. But the Petition falls far short of proving such inherency. As we will explain below, Kudryavtsev predicts that his tubular electrode structure may or may not yield multi-stage ionization depending on a variety of conditions, namely, the gas pressure p , the radius R of the tubular electrode structure, the strength of the applied electric field E , and the density of ground state argon atoms, n_1 . Therefore Kudryavtsev does not prove that Mozgrin's or Wang's radically different electrode structures and

¹ Ex. 1303, Mozgrin.

² Ex. 1304, Wang patent No. 6,413,382 (“Wang”).

³ Ex. 1305, Kudryavtsev.

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.