

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

THE GILLETTE COMPANY

Petitioner

v.

ZOND, LLC
Patent Owner

U.S. Patent No. 6,806,652

Inter Partes Review Case No. 2014-01004

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

Claim 35

TABLE OF CONTENTS

I. INTRODUCTION.....	1
II. TECHNOLOGY BACKGROUND	3
A. The Need for More Uniformly Distributed Plasmas.....	3
B. The '652 Patent: Dr. Chistyakov Invents a Technique for Generating Super Ionized Plasma Having A Uniform Charge Distribution.....	5
III. SUMMARY OF PETITIONER'S PROPOSED GROUNDS	9
IV. CLAIM CONSTRUCTION UNDER 37 C.F.R. §§ 42.104(B)(3).....	10
A. Construction of "means for generating an initial plasma and excited ions from a volume of feed as"	10
B. Construction of "means for transporting the initial plasma and excited atoms proximate to a cathode assembly"	16
C. Construction of "super-ionizing the initial plasma proximate to the cathode assembly"	18
V. PETITIONER HAS FAILED TO SHOW A REASONABLE LIKELIHOOD OF PREVAILING ON INDEPENDENT CLAIM 35.....	21
A. Defects In Ground I: Petitioner Failed To Demonstrate A Reasonable Likelihood That 35 is Obvious Over Mozgrin, Kudryavtsev, and Fahey.....	21
a. Overview of Mozgrin	22
b. Kudryavtsev	24
c. Overview of Fahey	28
d. Differences Between Claim 35 and the Ground I References	29
e. Conclusion: Petitioner Has Not Shown a Reasonable Likelihood of Success That Claim 35 is Obvious for the Reasons Asserted in Ground I.	36
B. Defects In Ground II: Petitioner Failed To Demonstrate A Reasonable Likelihood That Claim 35 is Obvious Over Mozgrin, Kudryavtsev, Fahey and Iwamura.....	36

C. Defects In Ground III: Petitioner Failed To Demonstrate A Reasonable Likelihood That Claim 35 is Obvious Over Mozgrin and Iwamura.....	42
D. Defects In Ground IV: Petitioner Failed To Demonstrate A Reasonable Likelihood That Claim 35 is Obvious Over Mozgrin, Iwamura and Fahey.....	44
E. The Petition Fails to Identify Any Compelling Rationale for Adopting Redundant Grounds of Rejection	49
VI. CONCLUSION.....	54

I. Introduction

The present petition for *inter partes* review is the third of three petitions by The Gillette Company that challenge the patentability of every claim of U.S. Patent No. 6,806,652 (“the ‘652 patent”). These petitions are part of a campaign seeking to annul ten Zond patents, and every one of hundreds of claims awarded to Zond. The present petition targets independent claim 35 of the ‘652 patent.

The ‘652 patent is generally directed to a plasma source for generating a super-ionized plasma having a high density of ions. The patent proposes a source in which a volume of feed gas is converted to an initial plasma that is filled with excited atoms. The plasma/excited atom mixture is then transported to a region that is proximate to a cathode assembly, where the conditions cause the transported mixture to super-ionize. This technique allows the initial plasma to be created from a volume of feed gas under a first condition that seeds the initial plasma with excited atoms. This facilitates the creation of a denser, super-ionized plasma in the next stage. Thus, the transportation of this mixture to another location exposes the mixture to a set of conditions that generate a super-ionized plasma from the mixture. This staged technique avoids the risk of arcing often associated with the formation of dense plasmas.

The present petition does not cite to any prior art reference that teaches the claimed plasma source. Instead it weaves together up to four different prior art references in an attempt to recreate the claims from carefully chosen excerpts. The selected references have publication dates that span nearly 20 years. Yet in all that time, not one reference wrote down or proposed the plasma source patented by Zond. Thus, as explained in this statement, the Petitioner inadvertently resorts to hindsight analysis in the hope of persuading the Board that the claim method was in fact obvious all along: Using the claims as a schematic, the Petitioner carefully selects a set of prior art references and assembles them to suit its objective.

In short, the art cited by the Petitioner for teaching sources of excited atoms date back to 1979,¹ nearly 24 years before Dr. Christyakov filed his application for the '652 patent. But in all that time the Petitioner can find no reference that suggested coupling the output of an excited atom source with a super-ionization stage, to transport excited atoms to a super-ionization region, despite the advantages of doing so. As the Supreme Court noted long ago:

But it is plain from the evidence, and from the very fact that it was not sooner adopted and used, that it did not, for years, occur in this light even to the most skilled persons. It may have been under

¹ Ex. 1005, Fahey.

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.