

DOCKET NO.: 0107131-00273US1

Filed on behalf of Intel Corporation

By: Richard Goldenberg, Reg. No. 38,895

David L. Cavanaugh, Reg. No. 36,476

Wilmer Cutler Pickering Hale and Dorr LLP

1875 Pennsylvania Ave., NW

Washington, DC 20006

Tel: (202) 663-6000

Email: Richard.Goldenberg@wilmerhale.com

David.Cavanaugh@wilmerhale.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

---

INTEL CORPORATION  
Petitioner

v.

ZOND, INC.  
Patent Owner

Case No. IPR 2014-00520

**PETITION FOR *INTER PARTES* REVIEW OF  
U.S. PATENT NO. 7,604,716  
CHALLENGING CLAIMS 1-11 AND 33  
UNDER 35 U.S.C. § 312 AND 37 C.F.R. § 42.104**

**TABLE OF CONTENTS**

I.	Mandatory Notices .....	- 1 -
A.	Real Party-in-Interest .....	- 1 -
B.	Related Matters.....	- 1 -
C.	Counsel.....	- 1 -
D.	Service Information.....	- 1 -
II.	Certification of Grounds for Standing.....	- 2 -
III.	Overview of Challenge and Relief Requested .....	- 2 -
A.	Prior Art Patents and Printed Publications.....	- 2 -
B.	Grounds for Challenge .....	- 3 -
IV.	Brief Description of Technology.....	- 3 -
A.	Plasma.....	- 4 -
B.	Ions and Excited Atoms .....	- 5 -
V.	Overview of the '716 Patent .....	- 6 -
A.	Summary of Alleged Invention of the '716 Patent .....	- 6 -
B.	Prosecution History .....	- 6 -
VI.	Overview of the Primary Prior Art References .....	- 7 -
A.	Summary of the Prior Art.....	- 7 -
B.	Overview of Mozgrin.....	- 8 -
C.	Overview of Wang .....	- 10 -
VII.	Claim Construction.....	- 11 -
A.	“weakly-ionized plasma” and “strongly-ionized plasma” .....	- 11 -
B.	“means for ionizing a feed gas...” (claim 33).....	- 13 -
C.	“means for supplying an electrical pulse...” (claim 33).....	- 14 -
VIII.	Specific Grounds for Petition.....	- 15 -
A.	Ground I: Claims 1-5, 8-11 and 33 are anticipated by Mozgrin .....	- 15 -
1.	Independent claim 33 is anticipated by Mozgrin.....	- 15 -
2.	Independent claim 1 is anticipated by Mozgrin.....	- 26 -
3.	Dependent claims 2-5 and 8-11 are anticipated by Mozgrin .....	- 30 -

B. Ground II: Claims 6 and 7 are obvious in view of the combination of Mozgrin and the Mozgrin Thesis..... - 36 -

C. Ground III: Claims 1-11 and 33 are anticipated by Wang..... - 39 -

    1. Independent claim 33 is anticipated by Wang ..... - 39 -

    2. Independent claim 1 is anticipated by Wang ..... - 48 -

    3. Dependent claims 2-11 are anticipated by Wang ..... - 51 -

IX. Conclusion ..... - 60 -

**TABLE OF AUTHORITIES**

*In re ICON Health & Fitness, Inc.*, 496 F.3d 1374, 1379 (Fed. Cir. 2007).

37 C.F.R. §42.22(a)(1)

37 C.F.R. § 42.100(b)

37 C.F.R. §42.104(a)

37 C.F.R. §42.104(b)(1)-(5)

77 Fed. Reg. 48764 (Aug. 14, 2012).

**I. MANDATORY NOTICES**

**A. Real Party-in-Interest**

Intel Corporation (“Petitioner”) is the real party-in-interest.

**B. Related Matters**

Zond has asserted U.S. Patent No. 7,604,716 (“’716 Patent”) (Ex. 1001) against numerous parties in the District of Massachusetts, 1:13-cv-11570-RGS (*Zond v. Intel*); 1:13-cv-11577-DPW (*Zond v. AMD, Inc., et al*); 1:13-cv-11581-DJC (*Zond v. Toshiba Am. Elec. Comp. Inc.*); 1:13-cv-11591-RGS (*Zond v. SK Hynix, Inc.*); 1:13-cv-11625-NMG (*Zond v. Renesas Elec. Corp.*); 1:13-cv-11634-WGY (*Zond v. Fujitsu, et al.*); and 1:13-cv-11567-DJC (*Zond v. Gillette, Co.*). Petitioner is also filing additional Petitions for *Inter Partes* review in several patents related<sup>1</sup> to the ’716 Patent.

**C. Counsel**

Lead Counsel: Richard Goldenberg (Registration No. 38,895)

Backup Counsel: David L. Cavanaugh (Registration No. 36,476)

**D. Service Information**

E-mail: David.Cavanaugh@wilmerhale.com;

Richard.Goldenberg@wilmerhale.com

Post and hand delivery: Wilmer, Cutler, Pickering, Hale and Dorr, LLP

---

<sup>1</sup> The related patents, e.g., name the same alleged inventor.

# 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.