

Filed on behalf of The Gillette Company

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UNITED STATES PATENT AND TRADEMARK OFFICE

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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THE GILLETTE COMPANY

Petitioners

v.

ZOND, LLC

Patent Owner of

U.S. Patent No. 6,896,773

IPR Trial No. IPR2014-00580

**PETITIONER'S REPLY**

**Claims 1-20 and 34-39**

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## I. INTRODUCTION

In its Decision on Institution (“DI”), the Board recognized there is a reasonable likelihood that the challenged claims 1-20 and 34-39 are unpatentable. *See* IPR2014-580 (“IPR580”) DI at p. 2. None of the arguments raised by Zond alters that conclusion.

The only disputes remaining as to the independent claims are as follows. First, Zond proposes to interpret the claim term “feed gas” to require a *constantly-flowing* gas (to the exclusion of a static gas in a chamber) in a misguided effort to distinguish the prior art. The Board has already rejected such a narrow reading of the term “feed gas.” But even if Zond’s interpretation were adopted, the cited prior art nevertheless renders the claims unpatentable.

Second, Zond has taken the incorrect position that Mozgrin does not teach “an ionization source that generates a weakly-ionized plasma from a feed gas proximate to the anode and the cathode assembly.” Mozgrin generates a plasma between the shaped anode and cathode that are separated by about 10 mm, which is squarely within the range of “proximate” (3 mm – 100 mm) of the ’773 patent. Moreover, Zond omits any discussion of the planar magetron embodiment shown in Mozgrin that teaches the claim limitations.

Third, it would have been obvious to a person of ordinary skill to combine Mozgrin with Fortov to achieve the “particular sputtering yield by choosing the amplitude and rise time of the applied voltage pulse.” IPR580 Patent Owner’s

Response (“PO Resp.”) at pp. 40-41. Mozgrin discloses choosing voltage amplitudes and rise times. Fortov describes the relationship between the sputtering yield and target temperature (which depends on the voltage amplitudes and rise times applied to the target), including when that relationship becomes “non-linear” as required by the claims. Moreover, the combination of Mozgrin and Fortov would have been obvious—indeed, recognizably advantageous—to a person of ordinary skill, despite Zond’s argument that Mozgrin is directed to etching while Fortov is directed to sputtering (as explained below, Mozgrin is directed to sputtering as well as etching).

Fourth, the Petition, supported by Mr. DeVito’s declaration, demonstrates why one of ordinary skill would have combined Mozgrin with the teachings of Fortov, Lantsman and Kudryavtsev, with reasonable expectation of success. In fact, the cross examination testimony of Dr. Hartsough, Zond’s declarant, confirms that the motivation to combine existed well before the ‘773 patent. Petitioner also provides the declaration of Dr. John Bravman, who reached the same conclusion: that the references would have been combined by one of ordinary skill, and that the challenged claims are unpatentable.<sup>1</sup>

Finally, as to the dependent claims, the concessions made by Dr. Hartsough and an accurate representation of the factual record clearly indicate that these claims too are invalid.

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<sup>1</sup> Mr. DeVito is no longer available to provide testimony.

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