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Filed By: Donald R. Steinberg, Reg. No. 37,241  
David L. Cavanaugh, Reg. No. 36,476  
Michael H. Smith, Reg. No. 71,190  
60 State Street  
Boston, Massachusetts 02109  
Tel: (617) 526-6000  
Email: Don.Steinberg@wilmerhale.com  
David.Cavanaugh@wilmerhale.com  
MichaelH.Smith@wilmerhale.com

UNITED STATES PATENT AND TRADEMARK OFFICE

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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ASML Netherlands B.V., Excelitas Technologies Corp., and Qioptiq Photonics  
GmbH & Co. KG,  
Petitioners

v.

Energetiq Technology, Inc.,  
Patent Owner.

Case IPR2016-00126

**PETITION FOR *INTER PARTES* REVIEW OF  
U.S. PATENT NO. 9,048,000  
CLAIMS 7-10**

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## I. MANDATORY NOTICES

### A. Real Parties-in-Interest

ASML Netherlands B.V., Excelitas Technologies Corp., and Qioptiq Photonics GmbH & Co. KG (“Petitioners”) are the real parties-in-interest.

### B. Related Matters

U.S. Patent No. 9,048,000 (“the ’000 patent,” Ex. 1101) is one member of a patent family of continuation and continuation in part applications. Exhibit 1102 shows the members of this patent family and the relationships among them. Petitioners have already filed a petition seeking *inter partes* review of claims 1, 15, and 18 of the ’000 patent, and are also seeking *inter partes* review of related U.S. Patent Nos. 7,435,982 (“the ’982 patent”); 7,786,455 (“the ’455 patent”); 8,309,943 (“the ’943 patent”); 8,525,138 (“the ’138 patent”); and 8,969,841 (“the ’841 patent”). Petitioners request that the reviews of the ’000, ’982, ’455, ’943, ’138, and ’841 patents be assigned to the same Panel for administrative efficiency.

The following litigation matter would affect or be affected by a decision in this proceeding: *Energetiq Tech., Inc. v. ASML Netherlands B.V.*, Civil Action No. 1:15-cv-10240-LTS (D. Mass.).

### C. Counsel

Lead Counsel: Donald R. Steinberg (Registration No. 37,241)

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

Second Backup Counsel: Michael H. Smith (Registration No. 71,190)

**D. Service Information**

Email: Donald R. Steinberg, don.steinberg@wilmerhale.com

Post and Hand Delivery: WilmerHale, 60 State St., Boston MA 02109

Telephone: 617-526-6453

Facsimile: 617-526-5000

**II. CERTIFICATION OF GROUNDS FOR STANDING**

Petitioners certify pursuant to Rule 42.104(a) that the patent for which review is sought is available for *inter partes* review and that Petitioners are not barred or estopped from requesting an *inter partes* review challenging the patent claims on the grounds identified in this Petition.

**III. OVERVIEW OF CHALLENGE AND RELIEF REQUESTED**

Pursuant to Rules 42.22(a)(1) and 42.104 (b)(1)-(2), Petitioners challenge claims 7-10 of the '000 patent (“the challenged claims”) and request that each challenged claim be cancelled.

**A. Grounds for Challenge**

This Petition, supported by the declaration of Dr. J. Gary Eden, a Professor of Electrical Engineering at the University of Illinois (“Eden Decl.,” Ex. 1103), demonstrates that there is a reasonable likelihood that Petitioners will prevail with respect to at least one of the challenged claims and that each of the challenged claims is unpatentable for the reasons cited in this petition. 35 U.S.C. § 314(a).

**B. Prior Art Patents and Printed Publications Relied Upon**

Petitioners rely upon the following patents and printed publications:

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