DOCKET NO.: 0107945.00246US30

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

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

V.

Energetiq Technology, INC., Patent Owner.

Case IPR2016-00774

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 9,048,000 CLAIMS 2-6



TABLE OF CONTENTS

			Page			
I.	MANDATORY NOTICES1					
	A.	Real Parties-in-Interest	1			
	B.	Related Matters.	1			
	C.	Counsel	2			
	D.	Service Information	2			
II.	CER	TIFICATION OF GROUNDS FOR STANDING	2			
III.	OVERVIEW OF CHALLENGE AND RELIEF REQUESTED3					
	A.	Grounds for Challenge	3			
	B.	Prior Art Patents and Printed Publications Relied Upon	3			
	C.	Relief Requested	4			
IV.	PERS	SON OF ORDINARY SKILL IN THE ART4				
V.	OVERVIEW OF THE '000 PATENT5					
	A.	Summary of the Prosecution History	7			
VI.	CLAIM CONSTRUCTION9					
	A.	"light"	10			
	B.	"substantially continuous laser energy"	12			
VII.	THE CHALLENGED CLAIMS ARE INVALID. 13					
	A.	Laser-Sustained Light Sources Were Known Long Before the Priority Date of the '000 Patent	13			
	B.	High pressure plasma light sources were well-known in the art	14			
	C.	Sustaining a plasma with a laser having a wavelength range of up to about 2000 nm, was well known in the art	14			
VIII.	GRO	GROUNDS FOR FINDING THE CHALLENGED CLAIMS INVALID23				
	A.	Ground 1: Claims 2-6 Are Unpatentable Over Gärtner in View of Mourou and Silfvast	23			
		1. Claim 1	24			
		2. Claim 2	40			
		3. Claim 3	42			



U.S. Patent 9,048,000 Petition for *Inter Partes* Review

		4.	Claim 4	43		
		5.	Claim 5	45		
		6.	Claim 6	46		
		7.	Claims 2-6 – Reasons to Combine	47		
	B.		ound 2: Claims 2-6 Are Unpatentable Over Gärtner in View Kensuke and Silfvast	47		
		1.	Claim 1	48		
		2.	Claim 2	55		
		3.	Claim 3	56		
		4.	Claim 4	57		
		5.	Claim 5	57		
		6.	Claim 6	58		
		7.	Claims 2-6 – Reasons to Combine	58		
IX.	RESPONSE TO ARGUMENTS RAISED BY PATENT OWNER REGARDING OBJECTIVE INDICIA OF NON-OBVIOUSNESS					
X			JSION	60		



I. MANDATORY NOTICES

A. Real Parties-in-Interest

ASML Netherlands B.V., ASML U.S., Inc., 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. 1201) is one member of a family of continuation and CIP applications. Exhibit 1202 shows the members of this patent family and the relationships among them. Petitioners are also seeking inter partes review of related U.S. Pat. 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"); 8,969,841 ("the '841 patent"); and 9,185,786 ("the '786 patent") in Case Nos. IPR2015-01300, IPR2015-01303, IPR2015-01377, IPR2016-00583, IPR2016-00584, IPR2016-00585, IPR2015-01279, IPR2016-00570, IPR2016-00575, IPR2015-00576, IPR2016-00578, IPR2016-00579, IPR2015-01277, IPR2016-00554, IPR2016-00556, IPR2016-00555, IPR2015-01368, IPR2016-00565, IPR2016-00566, IPR2015-01362, IPR2016-00127, IPR2015-01375, IPR2016-00126, IPR2016-00771, and IPR2016-00776. The status of the other proceedings is summarized in Ex. 1226.



Petitioners are also filing additional petitions on the '841, '000, and '786 patents. Petitioners request that all these *inter partes* reviews be assigned to the same Panel for administrative efficiency.

The following litigation matters would affect or be affected by a decision in this proceeding: *Energetiq Tech., Inc. v. ASML Netherlands B.V.,* No. 1:15-cv-10240-LTS (D. Mass.) and *In the Matter of Certain Laser-Driven Light Sources, Subsystems Containing Laser-Driven Light Sources, and Products Containing Same,* Inv. 337-TA-983 (U.S. Int'l Trade Commission).

C. Counsel

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

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

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

Third Backup Counsel: Brian M. Seeve (Registration No. 71,721)

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



DOCKET

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.

