

DOCKET NO.: 0107945.00235US22

Filed By: Donald 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., EXCELITAS TECHNOLOGIES CORP., AND QIOPTIQ
PHOTONICS GMBH & CO. KG,
Petitioners

v.

ENERGETIQ TECHNOLOGY, INC.,
Patent Owner.

Case IPR2016-00578

**PETITION FOR *INTER PARTES* REVIEW OF
U.S. PATENT NO. 7,786,455
CLAIMS 20, 21, 24**

TABLE OF CONTENTS

I.	MANDATORY NOTICES	1
A.	Real Parties-in-Interest	1
B.	Related Matters	1
C.	Counsel	2
D.	Service Information	2
II.	CERTIFICATION OF GROUNDS FOR STANDING	3
III.	OVERVIEW OF CHALLENGE AND RELIEF REQUESTED	3
A.	Grounds for Challenge	3
B.	Prior Art Patents and Printed Publications Relied Upon	3
C.	Relief Requested	4
IV.	PERSON OF ORDINARY SKILL IN THE ART	4
V.	OVERVIEW OF THE '455 PATENT	5
A.	Summary of the Prosecution History	7
VI.	CLAIM CONSTRUCTION	8
A.	“High brightness light”	9
B.	“Large solid angle”	12
VII.	THE CHALLENGED CLAIMS ARE INVALID	14
A.	Laser Sustained Plasma Light Sources Were Known Long Before the Priority Date of the '455 Patent	14
B.	Using a dichroic mirror to separate light of different wavelengths was well known in the art	17
VIII.	GROUND FOR FINDING THE CHALLENGED CLAIMS INVALID	18
A.	Ground 1: Claim 20 is unpatentable over Gärtner in view of Ershov	18
(a)	Gärtner and Ershov are each prior art that was not considered by the Patent Office during examination	19
(b)	Claim 20 is obvious by Gärtner in view of Ershov	21
B.	Ground 2: Claim 21 is unpatentable over Gärtner in view of Ershov and further in view of Ito	33

(a)	Gärtner, Ershov and Ito are each prior art that was not considered by the Patent Office during examination.....	33
(b)	Claim 21	34
C.	Ground 3: Claim 24 is unpatentable over Gärtner in view of Silverman.....	42
(a)	Gärtner and Silverman are each prior art that was not considered by the Patent Office during examination.....	43
(b)	Claim 24	43
(c)	Reasons to combine.....	48
IX.	RESPONSE TO ARGUMENTS RAISED BY PATENT OWNER IN ITS PRELIMINARY INJUNCTION MOTION	51
A.	Patent Owner’s Arguments Regarding the Content of the Prior Art.....	51
(a)	High Brightness Light	51
B.	Patent Owner’s Arguments Regarding Objective Indicia of Non-Obviousness	56
X.	CONCLUSION.....	58

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. 7,786,455 (“the ’455 patent,” Ex. 1401) is one member of a patent family of continuation, continuation in part, and divisional applications. Exhibit 1402 shows the U.S. members of this patent family and the relationships among them. Petitioners have already filed petitions seeking *inter partes* review of the ’455 patent, and of related U.S. Patent Nos. 7,435,982 (“the ’982 patent”); 8,309,943 (“the ’943 patent”); 8,525,138 (“the ’138 patent”); 8,969,841 (“the ’841 patent”); and 9,048,000 (“the ’000 patent”), as summarized below:

Patent No.	IPR No.	Challenged Claims	Status
7,435,982	IPR2015-01300 IPR2015-01303	1, 3-4, 10, 16, 21, 24-27, 30, 31, 34, 37, 42-43, 49, 55, 61-64, 67, 68, 71, 72, 74, and 78	Instituted on all challenged claims
7,435,982	IPR2015-01377	23 and 60	Instituted on all challenged claims
7,786,455	IPR2015-01279	19, 39-41	Instituted on all challenged claims
8,309,943	IPR2015-01277	1, 3, 13, and 16	Instituted on all challenged claims
8,525,138	IPR2015-01368	1-5	Instituted on all challenged claims
8,969,841	IPR2015-01362	1, 2, 3, and 7	Instituted on all challenged claims

8,969,841	IPR2016-00127	10, 13, 14	Pending
9,048,000	IPR2015-01375	1, 15, and 18	Instituted on all challenged claims
9,048,000	IPR2016-00126	7-10	Pending

Petitioners are also filing additional petitions on the '455, '982, '943, '138, '841, and '000 patents, as well as on the related U.S. Patent No. 9,185,786 ("the '786 patent"). Petitioners request that the *inter partes* reviews of all the '455, '982, '943, '138, '841, '000, and '786 patents 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., et al*, Civil Action 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. No. 337-TA-983.

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)

D. Service Information

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

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

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.