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

DECLARATION OF J. GARY EDEN, PH.D.
REGARDING U.S. PATENT NO. 9,048,000
CLAIMS 2-6

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TABLE OF CONTENTS

Page

I. BACKGROUND 1
II. LEGAL PRINCIPLES 7
III. PERSON OF ORDINARY SKILL IN THE ART 9
IV. OVERVIEW OF THE '000 PATENT 10
A. Summary of the Prosecution History 12
V. CLAIM CONSTRUCTION 15
A. "Light" 15
B. "Substantially continuous laser energy" 17
VI. THE CHALLENGED CLAIMS ARE INVALID 18
A. Laser-Sustained Light Sources Were Known Long Before the Priority Date of the '000 Patent 18
B. High pressure plasma light sources were well-known in the art. 19
C. Sustaining a plasma with a laser having a wavelength range of up to about 2000 nm, was well known in the art 19
VII. GROUNDS FOR FINDING THE CHALLENGED CLAIMS INVALID 33
A. Ground 1: Claims 2-6 Are Unpatentable Over Gärtner in View of Mourou and Silfvast 33
(a) Claim 1 34
(b) Claim 1 - Motivation to Combine 49
(c) Claim 2 54
(d) Claim 3 56
(e) Claim 4 57
(f) Claim 5 60
(g) Claim 6 61
(h) Claims 2-6 – Motivation to Combine 61
B. Ground 2: Claims 2-6 Are Unpatentable Over Gärtner in View of Kensuke and Silfvast 61
(a) Claim 1 63

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(b) Claim 1 – Motivation to Combine....69
(c) Claim 2....72
(d) Claim 3....72
(e) Claim 4....73
(f) Claim 5....74
(g) Claim 6....75
(h) Claims 2-6 – Motivation to Combine....75
VIII. RESPONSE TO ARGUMENTS RAISED BY PATENT OWNER REGARDING OBJECTIVE INDICIA OF NON-OBVIOUSNESS....75
IX. AVAILABILITY FOR CROSS-EXAMINATION....77
X. RIGHT TO SUPPLEMENT....77
XI. JURAT....78

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I, J. Gary Eden, Ph.D., declare as follows:

1. My name is J. Gary Eden.

I. BACKGROUND

2. I am the Gilmore Family Professor of Electrical and Computer Engineering and Director of the Laboratory for Optical Physics and Engineering at the University of Illinois in Urbana, Illinois.

3. I received a B.S. in Electrical Engineering (High Honors) from the University of Maryland, College Park in 1972 and an M.S. and Ph.D. in Electrical Engineering from the University of Illinois in 1973 and 1976, respectively.

4. After receiving my doctorate, I served as a National Research Council Postdoctoral Research Associate at the United States Naval Research Laboratory ("NRL"), Optical Sciences Division, in Washington, DC from 1975 to 1976. As a research physicist in the Laser Physics Branch (Optical Sciences Division) from 1976 to 1979, I made several contributions to the visible and ultraviolet lasers and laser spectroscopy field, including the co-discovery of the KrCl rare gas-halide excimer laser and the proton beam pumped laser (Ar-N_2, XeF). In 1979, I received a Research Publication Award for this work at the NRL.

5. In 1979, I was appointed assistant professor in the Department of Electrical and Computer Engineering at the University of Illinois. In 1981, I

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became associate professor in this same department, and in 1983, I became professor in this department. In 1995, I was named the Director of the Laboratory for Optical Physics and Engineering, and in 2007, I was named the Gilmore Family Professor of Electrical and Computer Engineering. I continue to hold both positions today. In addition, I am also Research Professor in the Coordinated Science Laboratory and the Micro and Nanotechnology Laboratory, and I hold academic appointments at the University of Illinois in the Departments of Materials Science and Engineering, Bioengineering, and Nuclear, Plasma, and Radiological Engineering.

6. Since joining the faculty of the University of Illinois in 1979, I have been engaged in research in atomic, molecular and ultrafast laser spectroscopy, the discovery and development of visible and ultraviolet lasers, and the science and technology of microcavity plasma devices. My research has been featured in Laser Focus, Photonics Spectra, Electronics Weekly (UK), the Bulletin of the Materials Research Society, Microwaves, Optical Spectra, Electro-Optical Systems Design, Optics and Laser Technology, Electronics, Optics News, Lasers and Optronics, IEEE Potentials, IEEE Spectrum, and IEEE Circuits and Devices. My work was also highlighted in the National Academy of Sciences report Plasma 2010, published in 2007.

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