

**UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK**

ALFANO OPTICAL TOMOGRAPHY LLC,

Plaintiff,

v.

THORLABS, INC.

Defendant.

C.A. No. _____

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Alfano Optical Tomography LLC (“Plaintiff” or “Alfano Optical Tomography”) by and for its complaint of patent infringement in this matter, hereby alleges through its attorneys as follows:

Nature of the Action

This is an action for patent infringement of United States Patent No. 6,208,886 (the “’886 Patent”) under the Patent Laws of the United States, 35 U.S.C. § 1, *et seq.*, seeking damages and other relief under 35 U.S.C. § 281, *et seq.*

The Parties

1. Plaintiff is a New York limited liability company with a place of business at 75 Montebello Road, Suffern, NY 10901.

2. Upon information and belief, Defendant Thorlabs, Inc. (“Thorlabs” or “Defendant”) is a New Jersey corporation having its principal place of business at 56 Sparta

Avenue, Newtown, NJ 07860.

Jurisdiction and Venue

3. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code §1, *et. seq.*, §§ 271, 281, and 284 - 85, among others.

4. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a) because the action concerns the infringement of a United States patent.

5. This court has personal jurisdiction over Thorlabs. Upon information and belief, Thorlabs transacts substantial business in the State of New York, directly or through intermediaries, including: (i) committing at least a portion of the infringements alleged herein, and (ii) regularly doing or soliciting business in New York, engaging in other persistent courses of conduct, maintaining continuous and systematic contacts in New York, purposefully availing itself of the privileges of doing business in New York, and/or deriving substantial revenue from goods and services provided to individuals in New York. In particular, upon information and belief, Thorlabs has sold and offered for sale the infringing products to individuals in New York.

6. The exercise of jurisdiction over Thorlabs would not offend traditional notions of fair play and substantial justice.

7. Venue is proper in this Judicial District pursuant to 28 U.S.C. §§ 1391 and 1400(b) because, among other reasons, Thorlabs is subject to personal jurisdiction in this Judicial District, and Thorlabs has transacted business and has committed and continues to commit acts of patent infringement in this Judicial District. For example, upon information and belief, Thorlabs has made, used, sold, offered for sale, and/or imported infringing products in this Judicial District.

The Patent-In-Suit

8. On March 27, 2001, the '886 Patent, entitled "Non-Linear Optical Tomography of Turbid Media," was duly and legally issued by the United States Patent and Trademark Office. Robert R. Alfano, Yici Guo, Feng Liu and Ping Pei Ho are the named inventors listed on the face of the '886 Patent (the "Inventors"). The '886 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. A true and correct copy of the '886 Patent is attached hereto as Exhibit A.

9. Plaintiff is the owner by assignment of the '886 Patent. Plaintiff holds all rights, title, and interest in the '886 Patent, including the right to collect and receive damages for past, present, and future infringements.

10. The inventions claimed in the '886 Patent arose from research conducted by the Inventors while working at The City College of New York ("CCNY"), which is a college of the City University of New York ("CUNY"). The Research Foundation of the City University of New York ("CUNY RF") and the Inventors established a university spin-off, Alfano Optical Tomography, to commercialize the invention and exploit the intellectual property covered by the '886 Patent. The Inventors and the Research Foundation of the City University of New York are each members of Plaintiff Alfano Optical Tomography.

11. Dr. Robert R. Alfano, the first named inventor of the '886 Patent, serves as the Chairman of the Board of Advisors of Alfano Optical Tomography, and advises the company on issues of technology, research and development and technology commercialization. Dr. Alfano holds a Ph.D. in physics and is a Distinguished Professor of Physics and Electrical Engineering at The City College of CUNY, where he has been a faculty member in the Department of Physics since 1972. He is also Director and the Founder of the CCNY's Institute for Ultrafast

Spectroscopy. Dr. Alfano is a Fellow of American Physical Society, Optical Society of America, and IEEE. Dr. Alfano focuses his research on developing ultrafast laser spectroscopic techniques and applications of these techniques to study ultrafast dynamical processes in physical, chemical, and biological systems. His research encompasses the study and development of supercontinuum, tunable solid-state lasers, nonlinear optical processes, multi photon effects, application of optical spectroscopic techniques for medical diagnosis (optical biopsy), study of photon migration in turbid media, and development of optical imaging techniques for biomedical imaging (optical mammography). He has published more than 700 papers and holds over 100 patents.

12. Generally, the '886 Patent is directed to products that construct three-dimensional tomographic maps. The '886 Patent teaches the scanning of samples with a beam of light in three directions, collecting the light from the sample and processing the light in such a way that a three-dimensional tomographic map of the sample is made. The images generated by the product result from nonlinear effects from ultrafast laser pulses, which produce, e.g., two-photon excited fluorescence images and second-order harmonic images of the sample.

COUNT I: INFRINGEMENT OF THE '886 PATENT BY DEFENDANT

13. Plaintiff incorporates herein by reference the allegations set forth in paragraphs 1 through 12 as if set forth here in full.

14. Thorlabs is not licensed under the '886 Patent, yet Thorlabs knowingly, actively, and lucratively practices the claimed inventions of the '886 Patent.

15. Upon information and belief, Thorlabs has been and is currently directly infringing, literally or under the doctrine of equivalents, one or more claims of the '886 Patent by making, using, offering to sell, and/or selling within the United States, and/or importing into the

United States and its Territories, without license or authority, products that create three dimensional tomographic maps of various samples in the manner claimed in the '886 Patent, including Thorlabs's Bergamo II Series Multiphoton Microscopes (and any such reasonably similar products) (the "Accused Products"), and is thus liable to Plaintiff pursuant to 35 U.S.C. § 271. Thorlabs's direct infringement includes, without limitation, making, using, offering to sell, and/or selling within the United States, and/or importing into the United States and its Territories the apparatus of at least claim 1 of the '886 Patent.

16. Thorlabs is therefore liable for direct infringement of the '886 Patent pursuant to 35 U.S.C. § 271(a).

17. Thorlabs further induces infringement of one or more claims of the '886 Patent, including at least claim 14. The direct infringement induced by Thorlabs includes at least the operation of the Accused Products by end users. Thorlabs knows that these users are infringing the '886 Patent at least by virtue of its receipt of a letter dated January 29, 2016, from Kathlene Ingham of General Patent Corporation to Alex Cable, President of Thorlabs, notifying Thorlabs of the existence of the '886 Patent and Thorlabs's ability to secure a license under the '886 Patent ("January 29, 2016 Letter"). Thorlabs has the specific intent to encourage its users to infringe the '886 Patent by practicing all of the claim limitations of one or more claims of the '886 Patent, including at least claim 14. *See, e.g.,*

https://www.thorlabs.com/newgrouppage9.cfm?objectgroup_id=7494#ad-image-0;

[https://www.thorlabs.com/images/TabImages/multiphoton_PW11.pdf.](https://www.thorlabs.com/images/TabImages/multiphoton_PW11.pdf)

18. Thorlabs induces its users to operate the Accused Products knowing that these acts constitute infringement of the '886 Patent and with specific intent to encourage those acts and encourage infringement. Upon gaining knowledge of the '886 Patent, it was, or became,

apparent to Thorlabs that the use of the Accused Products to make certain tomographic maps of samples was an act of infringement. Thorlabs has continued to engage in activities constituting inducement of infringement, notwithstanding its knowledge (or willful blindness thereto) that the activities it was inducing result in infringement of the '886 Patent. For example, Thorlabs is inducing infringement of the '886 Patent by, among other things, knowingly and with intent, actively encouraging its customers, users, agents and/or affiliates to make, use, offer to sell, sell and/or import the Accused Products in a manner that constitutes infringement of one or more claims of the '886 Patent, knowing that such activities infringe the '886 Patent.

19. Thorlabs encourages direct infringement of the '886 Patent at least by widely publicizing the Accused Products and by providing instructions on the use of the Accused Products. *See, e.g.*, https://www.thorlabs.com/newgrouppage9.cfm?objectgroup_id=7494#ad-image-0; https://www.thorlabs.com/images/TabImages/multiphoton_PW11.pdf. By inducing Thorlabs's customers', suppliers', users', agents' and/or affiliates' use of the apparatuses and methods claimed in the '886 Patent, including through their use of the Accused Products, Thorlabs has been and is now indirectly infringing under 35 U.S.C. § 271(b) one or more claims of the '886 Patent, either literally or under the doctrine of equivalents.

20. As a result of Thorlabs's unlawful infringement of the '886 Patent, Plaintiff has suffered and will continue to suffer damages in an amount to be proven at trial. Plaintiff is entitled to recover from Thorlabs the damages adequate to compensate for such infringement, in an amount no less than a reasonable royalty pursuant to 35 U.S.C. § 284, which have yet to be determined. The full measure of damages sustained as a result of Thorlabs's wrongful acts will be proven at trial.

21. Upon information and belief, Thorlabs will continue to infringe Plaintiff's

exclusive rights under the '886 Patent, and will continue to damage Plaintiff, causing irreparable harm, unless and until it is enjoined by this Court.

22. Plaintiff is entitled to pre-suit damages, and is not barred from pre-suit damages by 35 U.S.C. § 287.

23. Subsequent to sending the January 29, 2016 Letter to Thorlabs, between February 16, 2016 and August 2016 Ms. Ingham further communicated with Thorlabs regarding Thorlabs's ability to secure a license. However, those communications did not lead to Thorlabs's licensing the '886 Patent.

24. Thorlabs has thus been on actual notice of the '886 Patent since at least February 16, 2016, when Charles Quinn of the law firm Graham Curtin sent a letter to Ms. Ingham in response to the January 29, 2016 Letter.

25. Despite having learned of the '886 Patent and the technology it covers at least as early as on or about January 29, 2016, Thorlabs has not ceased its infringing activities. Thorlabs has infringed and continues to infringe despite an objectively high likelihood that its actions constitute infringement of Plaintiff's valid patent rights. This objectively high likelihood was known to Thorlabs, or was so obvious that Thorlabs should have known of this objectively high risk of infringement. Despite knowing that its actions constituted infringement of the '886 Patent and/or despite knowing that there was a high likelihood that its actions constituted infringement of that patent, Thorlabs nevertheless continued its infringing actions.

26. Thus, Thorlabs's infringement of the '886 Patent, which is entitled to statutory presumption of validity under 35 U.S.C. § 282, has been and continues to be deliberate and willful, at least since its receipt of the January 29, 2016 Letter.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for judgment and respectfully requests that this Court enter judgment in its favor and that the Court grant Plaintiff the relief as follows:

- A. Judgment that Defendant has infringed and/or continues to infringe one or more claims of the '886 Patent, literally and/or under the doctrine of equivalents;
- B. Judgment that such infringement has been willful;
- C. Holding that the '886 Patent is not invalid and not unenforceable;
- D. A permanent injunction enjoining Defendant and its officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert therewith from infringement of the '886 Patent;
- E. Award to Plaintiff of the damages to which it is entitled under 35 U.S.C. § 284 for Defendant's past infringement and any continuing or future infringement, including compensatory damages, and the trebling of such damages due to the willful nature of the infringement;
- F. Judgment that this case is exceptional pursuant to 35 U.S.C. §285 and awarding Plaintiff its attorneys' fees, costs and treble damages;
- G. Award to Plaintiff of all costs (including all disbursements) and expenses in this action;
- H. Award to Plaintiff of pre- and post-judgment interest on its damages; and
- I. Award to Plaintiff of such other and further relief in law or in equity as this Court deems just and proper.

JURY DEMAND

Plaintiff, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of

any and all issues so triable by right.

Dated: September 30, 2016

Respectfully submitted,

By: /s/ Charles Wizenfeld

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