# 504814364 03/12/2018

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4861099

SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT	
CONVEYING PARTY DA	ТА			
		Name	Execution Date	
ALEX EZRA CABLE			09/20/2017	
VIJAYSEKHAR JAYARAN	/IAN		09/13/2017	
BENJAMIN MICHAEL PO	TSAID		09/14/2017	
RECEIVING PARTY DAT	A			
Name:	THORLABS, INC.			
Street Address:	56 SPARTA AVENUE			
City:	NEWTC	N		
State/Country:	NEW JE	RSEY		
Postal Code:	07860			
Name:	PRAEVIUM RESEARCH, INC.			
Street Address:	5330 DEBBIE ROAD			
Internal Address:	SUITE 100			
City:	SANTA BARBARA			
State/Country:	CALIFORNIA			
Postal Code:	93111			
PROPERTY NUMBERS	Total: 1			
Property Type		Number		
Application Number:		5600074		
CORRESPONDENCE DA	тл			
Fax Number:		866)864-3947		
	•	the e-mail address first; if that is	unsuccessful, it will be sent	
using a fax number, if p	rovided;	; if that is unsuccessful, it will be		
		973-401-7157		
•		atent@grahamcurtin.com		
		HARRIS A. WOLIN		
		GRAHAM CURTIN, P.A.	ADQUARTERS PLAZA, P.O. BOX 1991	
		,	RISTOWN, NEW JERSEY 07962-1991	
Address Line 4:	Ч			
ATTORNEY DOCKET NUI	MBER:	3797-12 (THOR 3794F)		

NAME OF SUBMITTER:	HARRIS A. WOLIN	
SIGNATURE:	/Harris A. Wolin/	
DATE SIGNED:	03/12/2018	
	This document serves as an Oath/Declaration (37 CFR 1.63).	
Total Attachments: 4		
source=3797_12_thor_3794f_20170920_dec_assign#page1.tif		
source=3797_12_thor_3794f_20170920_dec_assign#page2.tif		
source=3797_12_thor_3794f_20170920_dec_assign#page3.tif		
source=3797_12_thor_3794f_20170920_dec_assign#page4.tif		

#### DECLARATION AND ASSIGNMENT FOR PATENT APPLICATIONS

As a below named inventor (designated as "the undersigned"), I hereby declare that:

This declaration is directed to the application attached hereto and entitled WIDELY TUNABLE SHORT

**CAVITY LASER.** If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the above-identified application, including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

Address all correspondence to CUSTOMER NUMBER 61624.

#### ASSIGNMENT

WHEREAS, **Thorlabs**, **Inc.**, having an address at **56 Sparta Avenue**, **Newton**, **NJ**, **07860** and **Praevium Research**, **Inc.**, having an address at **5330 Debbie Road**, **Suite 100**, **Santa Barbara**, **CA**, **93111** (hereinafter "ASSIGNEES"), is desirous of acquiring the entire right, title and interest in, to and under the above identified application and invention, and to any Letters Patent(s) that may be granted therefor.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto the said ASSIGNEES, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventor's certificates and designs which may be granted for said invention in any country or countries foreign to the United States and designs which may be granted for said invention in any country or countries foreign to the United States and designs which may be granted for said invention in any country or countries foreign to the United States and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

The undersigned authorizes and requests the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEES, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

PATENT REEL: 045172 FRAME: 0488

### **Customer Number 61624**

The undersigned covenants and agrees that he has full right to convey the entire interest herein assigned, and has not executed, and will not execute, any agreement in conflict herewith.

The undersigned further covenants and agrees that he will communicate to the said ASSIGNEES, its successors, legal representatives and assigns, any facts known respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEES, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

The undersigned hereby grants the law firm of Graham Curtin the power to insert any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

The undersigned hereby acknowledges that any willful false statement made in this declaration is punishable under 18 U.S.C. §1001 by fine or imprisonment of not more than five (5) years, or both.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

Full name of inventor: _	Alex Ezra Cable	
Inventor's Signature:	D	ate: <u>9/2/2/2/17</u>
	Newton, NJ	
Post Office Address:	c/o Thorlabs, Inc., 56 Sparta Avenue	e, Newton, NJ 07860
Full name of inventor: _	Vijaysekhar Jayaraman	
Inventor's Signature:	D	ate:
Residence:	Goleta, CA	
Post Office Address: c/c	Praevium Research, Inc., 5330 Debbie Roac	1. Suite 100,
Santa Barbara, CA 931	11	
Full name of inventor: _	Benjamin Michael Potsaid	
Inventor's Signature:	D	ate:
Residence:	Cambridge, MA	
Post Office Address:	c/o Thorlabs, Inc., 56 Sparta Avenue, N	ewton, NJ 07860

Page 2 of 2

#### Customer Number 61624

The undersigned covenants and agrees that he has full right to convey the entire interest herein assigned, and has not executed, and will not execute, any agreement in conflict herewith.

The undersigned further covenants and agrees that he will communicate to the said ASSIGNEES, its successors, legal representatives and assigns, any facts known respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEES, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

The undersigned hereby grants the law firm of Graham Curtin the power to insert any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

The undersigned hereby acknowledges that any willful false statement made in this declaration is punishable under 18 U.S.C. §1001 by fine or imprisonment of not more than five (5) years, or both.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

Full name of inventor:	Alex Ezra Cable	
Inventor's Signature:		Date:
Residence:	Newton, NJ	
Post Office Address:	c/o Thorlabs, Inc., 56 Sparta Ave	nue, Newton, NJ 07860
Full name of inventor: _	Vijayşékhar Jayaraman 7	i
Inventor's Signature:	Vigyel Juj	Date: <u>9/13/17</u>
Residence:	Goleta, CA	<u> </u>
Post Office Address: c/	o Praevium Research, Inc., 5330 Debbie Ro	pad, Suite 100,
Santa Barbara, CA 931	11	
Full name of inventor:	Benjamin Michael Potsaid	
Inventor's Signature:		Date:
Residence:	Cambridge, MA	
Post Office Address:	c/o Thorlabs, Inc., 56 Sparta Avenue	. Newton, NJ 07860

## PATENT REEL: 045172 FRAME: 0490

#### Customer Number 61624

The undersigned covenants and agrees that he has full right to convey the entire interest herein assigned, and has not executed, and will not execute, any agreement in conflict herewith.

The undersigned further covenants and agrees that he will communicate to the said ASSIGNEES, its successors, legal representatives and assigns, any facts known respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEES, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

The undersigned hereby grants the law firm of Graham Curtin the power to insert any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

The undersigned hereby acknowledges that any willful false statement made in this declaration is punishable under 18 U.S.C. §1001 by fine or imprisonment of not more than five (5) years, or both.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

Full name of inventor:	Aiex Ezra Cable
Inventor's Signature:	Date:
Residence:	Newton, NJ
Post Office Address	c/o Thorlabs, Inc., 56 Sparta Avenue, Newton, NJ 07860
Full name of inventor:	Vijaysekhar Jayaraman
Inventor's Signature:	Date:
Residence:	
Post Office Address: c/	2 Praevium Research, Inc., 5330 Debbie Road, Suite 100,
Santa Barbara, CA 931	11
Full name of inventor:	Beniamin Michael Polsaid
inventor's Signature:	Banain Promoto Date: 9/14/2017
Residence:	Cambridge_MA

Post Office Address: c/o Thoriabs, Inc. 56 Sparta Avenue, Newton, NJ 07860

Page 2 of 2

#### RECORDED: 03/12/2018

## PATENT REEL: 045172 FRAME: 0491