

## PATENT ASSIGNMENT

Electronic Version v1.1

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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>Lothar U. Kempen</td><td>06/15/1998</td></tr><tr><td>John D. Prohaska</td><td>06/15/1998</td></tr><tr><td>Robert A. Lieberman</td><td>06/15/1998</td></tr></tbody></table>		Name	Execution Date	Lothar U. Kempen	06/15/1998	John D. Prohaska	06/15/1998	Robert A. Lieberman	06/15/1998		
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Lothar U. Kempen	06/15/1998										
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Robert A. Lieberman	06/15/1998										
RECEIVING PARTY DATA											
<table border="1"><tr><td>Name:</td><td>SHEPPARD MULLIN RICHTER &amp; HAMPTON LLP</td></tr><tr><td>Street Address:</td><td>333 South Hope Street, 48th Floor</td></tr><tr><td>City:</td><td>Los Angeles</td></tr><tr><td>State/Country:</td><td>CALIFORNIA</td></tr><tr><td>Postal Code:</td><td>90071-1448</td></tr></table>		Name:	SHEPPARD MULLIN RICHTER & HAMPTON LLP	Street Address:	333 South Hope Street, 48th Floor	City:	Los Angeles	State/Country:	CALIFORNIA	Postal Code:	90071-1448
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PROPERTY NUMBERS Total: 1											
<table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>Application Number:</td><td>09434225</td></tr></tbody></table>		Property Type	Number	Application Number:	09434225						
Property Type	Number										
Application Number:	09434225										
CORRESPONDENCE DATA											
Fax Number: (858)509-3691 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>											
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ATTORNEY DOCKET NUMBER:	16LP-134153										
NAME OF SUBMITTER:	Linda M. de la Garza										
Total Attachments: 2 source=134153-assignment#page1.tif source=134153-assignment#page2.tif											

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PATENT  
REEL: 023203 FRAME: 0630

## ASSIGNMENT

WHEREAS, we, **John D. Prohaska, Lothar U. Kempen, and Robert A. Lieberman**, have made a certain new and useful invention for which we are about to make application for Letters Patent of the United States, which application may be identified in the United States Patent Office as Serial No. **09/057,067**, filed **April 8, 1998** and, entitled:

### *Birefringent Fiber Grating Sensor and Detection System*

(Executed: June 15, 1998 )

WHEREAS, **Physical Optics Corporation**, a corporation organized and existing under and by virtue of the laws of **California** and having its principal place of business in **Torrance, California**, is desirous of acquiring the entire interest in and to said invention, said application and the Letters Patent to be obtained therefor;

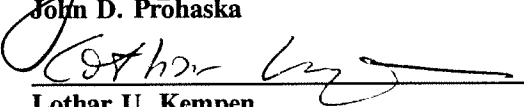
NOW, THEREFORE, for and in consideration of One Dollar and other good and valuable consideration to us in hand paid, the receipt and sufficiency whereof are hereby acknowledged, we have sold, assigned, and set over and by these presents do hereby sell, assign, and set over unto the said **Physical Optics Corporation** and said assignee's legal representative, successors and assigns, the entire right, title and interest in and to any and all applications including the aforesaid application, for Letters Patent heretofore and hereafter filed in the United States or any other country and which may be based in whole or in part on said inventions and discoveries, and in and to any and all Letters Patent heretofore or hereafter granted by the United States or any other country and which may be based in whole or in part on said inventions and discoveries, said assignment including the right to file and prosecute any and all such applications and also including the right to sue and recover for any and all such applications and also including the right to sue and recover for any and all infringements of said patents; and request the Commissioner of Patents to issue said Letters Patent to the above-mentioned assignee agreeably with the terms of this assignment.

WE HEREBY AUTHORIZE the above-mentioned assignee to insert in this instrument the filing date, execution date and serial number of our said application.

UPON SAID CONSIDERATION, we do hereby covenant for ourselves and our heirs, legal representatives and assigns that neither we nor any of our said heirs, legal representatives or assigns have or will execute any instrument or perform any act in conflict herewith and that we or our said heirs, legal representatives and assigns will at all times do such acts and execute such papers, without expense to ourselves, as may be necessary or desirable in order to fully protect said inventions and discoveries for the benefit of said assignee, its successors or assigns, and to otherwise carry into full force and effect the text and interest of this assignment.

IN WITNESS WHEREOF, we have hereunto set our hands and affixed our seals this 15<sup>th</sup> day of the month of June, 1998.

 (SEAL)  
John D. Prohaska

 (SEAL)  
Lothar U. Kempen

 (SEAL)  
Robert A. Lieberman

State of California       )  
                                  )ss.  
County of Los Angeles    )

On this \_\_\_\_\_ day of June, 1998, before me, a notary public in and for said county, appeared **John D. Prohaska, Lothar U. Kempen, and Robert A. Lieberman**, who are personally known to me to be the same persons whose names are subscribed to the foregoing instrument, and they acknowledged that they signed, sealed and delivered the said instrument as their free and voluntary act for the uses and purposes therein set forth.

\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_

NILLES & NILLES, S.C.

CLIENT\POC\BIREFRIN.ASN

**PATENT**  
**REEL: 023203 FRAME: 0631**

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

No. 5907

State of California,

County of Los Angeles,

On June 15, 1998 before me, Jane M. Burdick, Notary Public -----,

DATE

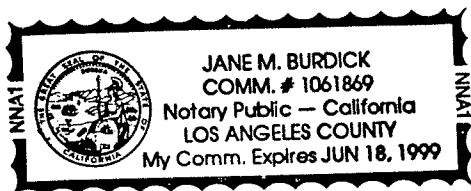
NAME, TITLE OF OFFICER - E.G., "JANE DOE, NOTARY PUBLIC"

personally appeared John D. Prohaska, Lothar U. Kempen and Robert A. Lieberman,

NAME(S) OF SIGNER(S)

☒ personally known to me - ~~OR~~ ☐ ~~proved to me on the basis of satisfactory evidence~~

to be the person(s) whose name(s) ~~is/are~~ subscribed to the within instrument and acknowledged to me that ~~he/she/they~~ executed the same in ~~his/her/their~~ authorized capacity(ies), and that by ~~his/her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



WITNESS my hand and official seal.

Jane M. Burdick  
SIGNATURE OF NOTARY

## OPTIONAL

Though the data below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent reattachment of this form.

### CAPACITY CLAIMED BY SIGNER

- ☐ INDIVIDUAL  
☐ CORPORATE OFFICER

TITLE(S)

- ☐ PARTNER(S) ☐ LIMITED  
☐ GENERAL  
☐ ATTORNEY-IN-FACT  
☐ TRUSTEE(S)  
☐ GUARDIAN/CONSERVATOR  
☐ OTHER: \_\_\_\_\_

### SIGNER IS REPRESENTING:

NAME OF PERSON(S) OR ENTITY(IES)

### DESCRIPTION OF ATTACHED DOCUMENT

ASSIGNMENT to U.S. Patent Application,  
"Birefringent Fiber Grating Sensor  
and Detection System"

TITLE OR TYPE OF DOCUMENT

One (1)

NUMBER OF PAGES

None

DATE OF DOCUMENT

None

SIGNER(S) OTHER THAN NAMED ABOVE

PATENT

RECORDED: 09/08/2009

REEL: 023203 FRAME: 0632