

11/19/04  
**RECORDATION FORM COVER SHEET**  
**PATENTS ONLY**

HONORABLE COMMISSIONER OF  
 PATENTS AND TRADEMARKS  
 WASHINGTON, D.C. 20231

11-23-2004



SIR:

102887887

PLEASE RECORD THE ATTACHED ORIGINAL DOCUMENT(S) OR COPY(IES) THEREOF.

**1. NAME OF CONVEYING PARTY(IES)**

Eleferios Lidorikis, Steven G. Johnson, Michelle L. Povinelli &  
 John D. Joannopoulos

Additional name(s) of conveying party(ies) attached? No

**2. NAME(S) AND ADDRESS(ES) OF RECEIVING PARTY(IES)**

Massachusetts Institute of Technology  
 77 Massachusetts Avenue  
 Cambridge, Massachusetts 02139

Additional name(s) of receiving party(ies) attached? No

**3. NATURE OF CONVEYANCE**

- ☒ Assignment  
☐ Security Agreement  
☐ Merger  
☐ Change of Name  
☐ Other

Execution Date:

11/3/04, 11/9/04 &amp; 11/10/04

**4. APPLICATION NUMBER(S) OR PATENT NUMBER(S)**

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No(s): 10/849,593

B. Patent No(s):

Additional numbers attached? No

NOV 17 2004  
 C/PAT/RECORD

**5. NAME AND ADDRESS OF PARTY TO WHOM CORRESPONDENCE CONCERNING DOCUMENT SHOULD BE DIRECTED:**

Matthew E. Connors  
 Gauthier & Connors LLP  
 225 Franklin Street  
 Boston, Massachusetts 02110  
 (617) 426-9180, Extension 112

**6. TOTAL NUMBER OF APPLICATIONS AND PATENTS INVOLVED:** 1**7. TOTAL FEE DUE:** \$40.00 (Enclosed)

If any additional fee(s) are due, the Commissioner is hereby  
 authorized to charge the Deposit Order Account noted in item 8.

**8. DEPOSIT ACCOUNT NUMBER:** 19-0079**9. STATEMENT AND SIGNATURE**

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy  
 of the original document.

Matthew E. Connors

Name of Person Signing

Signature

Date

11/16/04

Total number of pages including cover sheet, attachments, and document: 7

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being  
 deposited with the United States Postal Service on the date shown below with sufficient postage as first  
 class mail in an envelope addressed to the Commissioner of Patents and Trademarks, P.O. Box 1450,  
 Alexandria, VA 22313-1450 Mail Stop: Assignment Recordation Services

Deborah M. Costello

Date:

11-16-04

11/22/2004 ECOOPER 00000112 10849593

01 FC:8021

40.00 OP

**PATENT**  
**REEL: 015998 FRAME: 0580**

**ASSIGNMENT**

Know all men by these presents that:

WHEREAS we, Elefterios Lidorikis  
45 Sofokleous Street  
Kallithea 17671  
Athens, Greece

and Steven G. Johnson  
223 Charles St., Apt. #3  
Cambridge, MA 02141

and Michelle L. Povinelli  
2 Carver St., Apt. 2  
Somerville, MA 02143

and John D. Joannopoulos  
64 Douglas Road  
Belmont, MA 02478

have made an invention for

**POLARIZATION-INDEPENDENT OPTICAL NETWORKS IN 3D PHOTONIC  
CRYSTALS**

described in the application filed in the United States Patent Office on May 20, 2004 as Serial No. 10/849,593. This application claims priority under 35 USC §119(e) from United States Provisional Patent Application Serial No. 60/482,198, filed June 24, 2003; and

WHEREAS Massachusetts Institute of Technology, a corporation duly organized and existing under the laws of Massachusetts and having a place of business at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139, for the benefit of itself, its successors and assigns, all inclusively hereinafter referred to as the Assignee, is desirous of acquiring the entire right, title and interest in and to the said invention, the said application, all inventions disclosed in said application and any and all Letters Patent of the United States and of all other countries which may be granted for the said invention or inventions, or any of them;

NOW, THEREFORE, for good and valuable consideration provided by said Assignee, the receipt whereof is hereby acknowledged, we do hereby sell, assign and transfer to the said Assignee the entire right, title and interest in and to the said invention, inventions and application, including all priority rights arising therefrom, all inventions disclosed in said application, and any and all Letters

Patent of the United States, and of all other countries, together with the right to apply for such Letters Patent, which may be granted for the said invention, inventions or any of them,

TO HAVE, HOLD AND ENJOY the said invention, the said application, and the said Letters Patent, to said

**MASSACHUSETTS INSTITUTE OF TECHNOLOGY**

its successors and assigns, to its and their own use and behoof to the full end of the term or terms for which the said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by us had this assignment and sale not been made.

AND we hereby authorize and request the Commissioner of Patents of the United States and the appropriate officers of all foreign patent offices to issue any and all Letters Patent which may be granted on the said application or applications above referred to, or for the said invention, or any of them, to the said Assignee in accordance with the terms of this instrument.

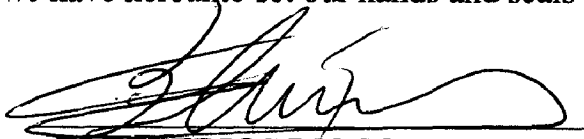
AND we hereby agree to execute and sign without further consideration any other legal document and any other assignments and any divisional, continuing, renewal, reissue or other application in and for all patents that may be appropriate and may be deemed necessary by the Assignee fully to secure to said Assignee its interests as aforesaid in and to the said invention or any part thereof and in and to the said patents or any of them.

AND we further covenant and agree that we will at any time upon request communicate to the said Assignee, its successors, assigns or other legal representatives, any facts known to us relating to the said invention and any patent that may be granted thereon, and will testify as to the same in any interference or litigation when requested to do so.

AND we hereby covenant for ourselves and our legal representatives that we have not hitherto assigned or granted any license to make, use or sell said invention, and that we will not henceforth purport to assign, license or execute any instrument to that effect in conflict with this assignment.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on the dates below.

11/03/04  
Date

  
**ELEFTERIOS LIDORIKIS**

\_\_\_\_\_  
Date

\_\_\_\_\_  
**STEVEN G. JOHNSON**

TO HAVE, HOLD AND ENJOY the said invention, the said application, and the said Letters Patent, to said

**MASSACHUSETTS INSTITUTE OF TECHNOLOGY**

its successors and assigns, to its and their own use and behoof to the full end of the term or terms for which the said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by us had this assignment and sale not been made.

AND we hereby authorize and request the Commissioner of Patents of the United States and the appropriate officers of all foreign patent offices to issue any and all Letters Patent which may be granted on the said application or applications above referred to, or for the said invention, or any of them, to the said Assignee in accordance with the terms of this instrument.

AND we hereby agree to execute and sign without further consideration any other legal document and any other assignments and any divisional, continuing, renewal, reissue or other application in and for all patents that may be appropriate and may be deemed necessary by the Assignee fully to secure to said Assignee its interests as aforesaid in and to the said invention or any part thereof and in and to the said patents or any of them.

AND we further covenant and agree that we will at any time upon request communicate to the said Assignee, its successors, assigns or other legal representatives, any facts known to us relating to the said invention and any patent that may be granted thereon, and will testify as to the same in any interference or litigation when requested to do so.

AND we hereby covenant for ourselves and our legal representatives that we have not hitherto assigned or granted any license to make, use or sell said invention, and that we will not henceforth purport to assign, license or execute any instrument to that effect in conflict with this assignment.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on the dates below.

Date

11 / 9 / 04

Date

ELEFTERIOS LIDORIKIS

STEVEN G. JOHNSON

Date

MICHELLE L. POVINELLI

11/9/04

Date

  
**MICHELLE L. POVINELLI**

Date

**JOHN D. JOANNOPOULOS**

\_\_\_\_\_  
Date

\_\_\_\_\_  
**STEVEN G. JOHNSON**

\_\_\_\_\_  
Date

\_\_\_\_\_  
**MICHELLE L. POVINELLI**

\_\_\_\_\_  
10 Nov 04

\_\_\_\_\_  
Date

\_\_\_\_\_  
  
**JOHN D. JOANNOPOULOS**