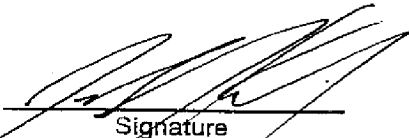


Form PTO-1595 (Rev. 03/01) OMB No. 0651-0027 (exp. 5/31/2002)		RECORDATION FORM COVER SHEET PATENTS ONLY		U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office	
Tab settings ⇌ ⇌ ⇌ ▼ ▼ ▼ ▼ ▼ ▼ ▼					
To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.					
1. Name of conveying party(ies): Jasbinder Sanghera L.B. Shaw P.C. Pureza Brian Cole Ishwar Aggarwal			2. Name and address of receiving party(ies) The United States of America as Name: <u>represented by the Secretary of the Navy</u> Internal Address: <u>CHIEF OF NAVAL RESEARCH</u> <u>OFFICE OF COUNSEL</u> <u>(ATTN: CODE OOCPIP)</u> Street Address: <u>BALLSTON TOWER ONE</u> <u>800 NORTH QUINCY STREET</u> City: <u>ARLINGTON</u> State: <u>VA</u> Zip: <u>22217</u>		
Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other _____					
Execution Date: <u>24 July 2003, 01 August 2003</u>					
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) <u>10/632210</u> <u>NC 84,395</u>			B. Patent No.(s) _____		
Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
5. Name and address of party to whom correspondence concerning document should be mailed: Name: <u>ASSOCIATE COUNSEL (PATENTS)</u> Internal Address: <u>NAVAL RESEARCH LABORATORY</u> <u>(ATTN: CODE 1008.2)</u> Street Address: <u>4555 OVERLOOK AVENUE, SW</u> City: <u>WASHINGTON</u> State: <u>DC</u> Zip: <u>20375</u>			6. Total number of applications and patents involved: <u>1</u>		
			7. Total fee (37 CFR 3.41).....\$ <u>40.00</u> <input type="checkbox"/> Enclosed <input checked="" type="checkbox"/> Authorized to be charged to deposit account		
			8. Deposit account number: <u>50-0281</u>		
DO NOT USE THIS SPACE					
9. Signature. <div>JOHN J. KARASEK Reg. No. 36,182 Name of Person Signing</div> <div> Signature</div> <div><u>12/18/03</u> Date</div>					
Total number of pages including cover sheet, attachments, and documents: <u>3</u>					
Mail documents to be recorded with required cover sheet information to: Commissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231					

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ASSIGNMENT

Navy Case No. 84,395
Page 1 of 1

WHEREAS, I/We, **Jasbinder Sanghera**, of Ashburn, VA, **L. B. Shaw** of Woodbridge, VA, **P. C. Pureza** of Burke, VA, **Brian Cole** of Alexandria, VA and **Ishwar Aggarwal** of Fairfax Station, VA, while employed by the Government of the United States, have invented certain new and useful improvements in "HOLLOW CORE PHOTONIC BAND GAP INFRARED FIBERS", identified as Navy Case No. 84,395 and described in application for Letters Patent of the United States of America executed by us; and:

WHEREAS, the Government of the United States, represented by the Secretary of the Navy and hereinafter referred to as the Government, is desirous of acquiring an assignment of the invention disclosed in said application and other rights and benefits herein granted; and

WHEREAS, the conditions under which the invention was made are such as to entitle the Government under Paragraph 1(a) of Executive Order 10096, to the entire right, title and interest therein, including foreign rights; and

WHEREAS, as to foreign rights, it is the policy of the Government to obtain an option to exercise such rights;

NOW, THEREFORE, in consideration of the premises and other good and valuable consideration the receipt of which is hereby acknowledged, I hereby assign and transfer to the Government the entire right, title and interest in and to said invention within the United States of America, its territories and possessions, and the entire right, title and interest in and to said application and any continuation, division, or substitution thereof, and such Letters Patent as may issue therefrom and any reissue or extensions thereof, said invention, application and Letters Patent to be held by the Government to the end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this assignment not been made.

I/We do hereby also grant unto the Government, the option to take the entire right, title and interest in the invention and all patent applications or other forms of protection thereon in all countries foreign to the United States in which the Government may file, or cause to be filed, applications for Letters Patent or other forms of protection, without payment of any consideration; provided, however, that this grant of an option to take foreign rights in the invention, or applications or other forms of protection thereon, shall have force and effect only as to such applications for which a decision to file in foreign countries is made within eight months of the filing date of any application for United States Letters Patent covering the invention, or within eight months from the declassification of the invention, whichever is later, and that all foreign rights not exercised under the option are left to me subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent or other form of protection which may issue on said invention in any foreign country, including the power to issue sub-licenses for use in behalf of the Government and/or in furtherance of the foreign policies of the Government.

I/We hereby further agree to make, execute, and deliver to the Government, any and all papers, documents, affidavits, statements, or other instruments that may be necessary in the prosecution of the application and of any continuation, division or substitution of the application, or any application for reissue or extension of said Letters Patent, and to assist the Government in every way in protecting the invention as may be requested, provided that any expense arising through such efforts will be paid by the Government.

IN TESTIMONY WHEREOF, I/We have set my hand and affixed my seal.

Jasbinder Sanghera
Jasbinder Sanghera

L. B. Shaw
L. B. Shaw

P. C. Pureza
P. C. Pureza

Brian Cole
Brian Cole

Ishwar Aggarwal
Ishwar Aggarwal

DATE: 7/24/03

DATE: 7/24/03

DATE: 7/24/03

DATE: _____

DATE: 8.1.03

ASSIGNMENT

Navy Case No. 84,395
Page 1 of 1

WHEREAS, I/We, Jasbinder Sanghera, of Ashburn, VA, L. B. Shaw of Woodbridge, VA, P. C. Puroza of Burke, VA, Brian Cole of Alexandria, VA and Ishwar Aggarwal of Fairfax Station, VA, while employed by the Government of the United States, have invented certain new and useful improvements in "HOLLOW CORE PHOTONIC BAND GAP INFRARED FIBERS", identified as Navy Case No. 84,395 and described in application for Letters Patent of the United States of America executed by us; and:

WHEREAS, the Government of the United States, represented by the Secretary of the Navy and hereinafter referred to as the Government, is desirous of acquiring an assignment of the invention disclosed in said application and other rights and benefits herein granted; and

WHEREAS, the conditions under which the invention was made are such as to entitle the Government under Paragraph 1(a) of Executive Order 10096, to the entire right, title and interest therein, including foreign rights; and

WHEREAS, as to foreign rights, it is the policy of the Government to obtain an option to exercise such rights;

NOW, THEREFORE, in consideration of the premises and other good and valuable consideration the receipt of which is hereby acknowledged, I hereby assign and transfer to the Government the entire right, title and interest in and to said invention within the United States of America, its territories and possessions, and the entire right, title and interest in and to said application and any continuation, division, or substitution thereof, and such Letters Patent as may issue therefrom and any reissue or extensions thereof, said invention, application and Letters Patent to be held by the Government to the end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this assignment not been made.

I/We do hereby also grant unto the Government, the option to take the entire right, title and interest in the invention and all patent applications or other forms of protection thereon in all countries foreign to the United States in which the Government may file, or cause to be filed, applications for Letters Patent or other forms of protection, without payment of any consideration; provided, however, that this grant of an option to take foreign rights in the invention, or applications or other forms of protection thereon, shall have force and effect only as to such applications for which a decision to file in foreign countries is made within eight months of the filing date of any application for United States Letters Patent covering the invention, or within eight months from the declassification of the invention, whichever is later, and that all foreign rights not exercised under the option are left to me subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent or other form of protection which may issue on said invention in any foreign country, including the power to issue sub-licenses for use in behalf of the Government and/or in furtherance of the foreign policies of the Government.

I/We hereby further agree to make, execute, and deliver to the Government, any and all papers, documents, affidavits, statements, or other instruments that may be necessary in the prosecution of the application and of any continuation, division or substitution of the application, or any application for reissue or extension of said Letters Patent, and to assist the Government in every way in protecting the invention as may be requested, provided that any expense arising through such efforts will be paid by the Government.

IN TESTIMONY WHEREOF, I/We have set my hand and affixed my seal.

Jasbinder Sanghera

DATE: _____

L. B. Shaw

DATE: _____

P. C. Puroza

DATE: _____

Brian Cole

DATE: 24 Jul 03

Ishwar Aggarwal

DATE: _____

84,395

Assignment

Title "HOLLOW CORE PHOTONIC BAND GAP INCREASED FINERS"		
Inventor(s) (Name) JASBINDER SANGHERA ISHWAR AGGARWAL L.B. SHAW P.C. PUREZA FRED KUNG BRIAN COLE		
Contractor MARYLAND ADVANCED DEVELOPMENTAL LAB		
Contract No. ND0014-96-G-2006		Government Agency Naval Research Laboratory
Contractor Invention Docket No.		Agency Docket No. 84,395
Date Executed	Docket No.	Filing Date

The undersigned inventor(s), in recognition of his (their) obligation as employee(s) of the Contractor to assign inventions to the Contractor, and pursuant to the obligation of the Contractor to the Government under the above contract, hereby assigns (assign) to the United States of America, subject to a nonexclusive and royalty-free license which is hereby reserved to the Contractor, all rights, title and interest in and to each invention disclosed and claimed in the above U.S. patent application and any foreign patent application that corresponds thereto.

The license reserved to the Contractor shall extend to all existing and future associated and affiliated companies, if any within the corporate structure of which the Contractor is a part and shall be assignable to the successor of that part of the Contractor's business to which such invention pertains.


The inventor(s) further agrees (agree) to assist the Contractor, and the Government, upon request, by furnishing any available information and documents, and by performing all acts and doing all things which may be reasonably necessary to make this agreement effective.

The Contractor joins in and agrees to the foregoing assignment, and except for the above reservation of a license relinquishes and assigns all right, title and interest in and to such invention, and further agrees to furnish to the United States of America, upon request, any available information and documents necessary for the prosecution of the above-identified application for patent (including prosecution and settlement of interferences), and any substitution, division, continuation-in-part, or continuation of such patent application and any application for reissue of any patent resulting from such patent application.

July 24, 2003
Date

Date

Date


FRED KUNG
Inventor

Inventor

Inventor

Signed This _____ Day of

December 30, 2003

Attest:


Contractor

(Seal)

By Dr. Norris J. Krone, Jr.
President