

TRADEMARK ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	Collateral Assignment		
CONVEYING PARTY DATA			
Name	Formerly	Execution Date	Entity Type
Nufern		02/18/2005	CORPORATION: DELAWARE
RECEIVING PARTY DATA			
Name:	Connecticut Development Authority		
Street Address:	999 West Street		
City:	Rocky Hill		
State/Country:	CONNECTICUT		
Postal Code:	06067		
Entity Type:	Public Instrumentality and Political Subdivision of the State of Connecticut:		
PROPERTY NUMBERS Total: 5			
Property Type	Number	Word Mark	
Registration Number:	2602794	NUFERN	
Registration Number:	2743071	NUFERN	
Registration Number:	2602310	NUFERN	
Registration Number:	2784242	DRIVEN TO LIGHT	
Serial Number:	78466521	NULABS	
CORRESPONDENCE DATA			
Fax Number:	(860)275-0343		
	<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>		
Phone:	860-275-0589		
Email:	ptomail@dbh.com		
Correspondent Name:	Barb Villandry, Paralegal		
Address Line 1:	CityPlace 1		
Address Line 4:	Hartford, CONNECTICUT 06103-3499		
NAME OF SUBMITTER:	Barb Villandry		

CH \$140.00 2602794

Signature:	/Barb Villandry/
Date:	02/22/2005
Total Attachments: 15 source=Nufern collateral assignment#page1.tif source=Nufern collateral assignment#page2.tif source=Nufern collateral assignment#page3.tif source=Nufern collateral assignment#page4.tif source=Nufern collateral assignment#page5.tif source=Nufern collateral assignment#page6.tif source=Nufern collateral assignment#page7.tif source=Nufern collateral assignment#page8.tif source=Nufern collateral assignment#page9.tif source=Nufern collateral assignment#page10.tif source=Nufern collateral assignment#page11.tif source=Nufern collateral assignment#page12.tif source=Nufern collateral assignment#page13.tif source=Nufern collateral assignment#page14.tif source=Nufern collateral assignment#page15.tif	

**COLLATERAL ASSIGNMENT OF PATENTS, TRADEMARKS,
COPYRIGHTS AND LICENSES**

THIS COLLATERAL ASSIGNMENT OF PATENTS, TRADEMARKS, COPYRIGHTS AND LICENSES (this "Assignment") made as of February 18, 2005, by NUFERN, a Delaware corporation having its chief executive office at 7 Airport Park Road, East Granby, Connecticut 06026 ("Assignor") to the **CONNECTICUT DEVELOPMENT AUTHORITY**, a body politic and corporate constituting a public instrumentality and political subdivision of the State of Connecticut, having its principal office at 999 West Street, Rocky Hill, Connecticut 06067 ("Assignee").

RECITALS

- A. Assignor and Assignee have entered into a Loan Agreement of even date herewith (the "Loan Agreement") pursuant to which Assignee has agreed to make a certain Loan (as defined in the Loan Agreement) to Assignor.
- B. Assignor and Assignee are entering into this Assignment in order to secure Assignor's repayment obligations to Assignee.

AGREEMENT

In consideration of the foregoing, Assignor and Assignee hereby agree as follows:

1. **Definitions.** Most of the capitalized terms used in this Assignment are defined in the Loan Agreement or other of the Loan Documents (as defined in the Loan Agreement). Other capitalized terms are defined elsewhere in this Assignment.

2. **Collateral Assignment of Patents, Trademarks, Copyrights and Licenses.** To secure the complete and timely satisfaction of all of the obligations of Assignor to Assignee under this Assignment, the Loan Agreement, the Note, the other Loan Documents and all other documents, instruments and agreements delivered by Assignor in connection therewith (collectively, the "Obligations"), Assignor hereby mortgages, pledges and assigns to Assignee, as and by way of a security interest having priority over all other security interests except as provided for under the Loan Documents, with power of sale upon the occurrence of an Event of Default, and grants Assignee a security interest in, all of Assignor's right, title and interest in and to all of the following, whether now existing or hereafter arising:

- (i) all patents and patent applications, including, without limitation, the inventions and improvements described and claimed therein, and those patents and patent applications listed on Schedule A attached hereto and made a part hereof, and (A) all reissues, divisions, continuations, renewals, extensions and continuations-in-part thereof, (B) all income, royalties, damages and payments now and hereafter due and/or payable under and with respect thereto, including, without limitation, damages and payments for past or future infringements thereof, (C) the right to sue for past, present and future

infringements thereof, and (D) all rights corresponding thereto throughout the world (all of the foregoing patents and applications, together with the items described in clauses (A) through (D), inclusive, in which either Assignor now or hereafter have any right, title or interest are sometimes hereinafter individually and/or collectively referred to as the "Patents");

- (ii) all service marks, trademarks, trademark or service mark registrations, trademark or service mark applications, trade names, copyrights, copyright registrations and copyright applications including, without limitation, the trademarks, service marks, copyrights and applications listed on Schedule B attached hereto and made a part hereof, and (A) all renewals thereof, (B) all income, royalties, damages and payments now and hereafter due and/or payable with respect thereto, including, without limitation, damages and payments for past or future infringements thereof, (C) the right to sue for past, present and future infringements thereof, and (D) all rights corresponding thereto throughout the world (all of the foregoing service marks, trademarks, registrations, applications and trade names, together with the items described in clauses (A) through (D), inclusive, with respect thereto in which either Assignor now or hereafter have any right, title or interest are sometimes hereinafter individually and/or collectively referred to as the "Marks" and all of the foregoing copyrights, copyright registrations and copyright applications, together with the items described in clauses (A) through (D), inclusive, in which either Assignor now or hereafter have any right, title or interest are sometimes hereinafter individually and/or collectively referred to as the "Copyrights");
- (iii) all rights and obligations pursuant to Assignor's license agreements with any other Person or Persons with respect to any Patents, Marks and Copyrights or otherwise, whether such Assignor is licensor or licensee under any such license agreements, including, without limitation, the licenses listed on Schedule C attached hereto and made a part hereof, and, subject to the terms of such licenses, the right to prepare for sale, sell and advertise for sale, all Inventory now or hereafter owned by Assignor and now or hereafter covered by such licenses (all of the foregoing is hereinafter referred to collectively as the "Licenses"); and
- (iv) the goodwill of Assignor's businesses connected with and symbolized by the Marks; provided, however, that there shall be excluded from the foregoing collateral assignment and grant of a security interest any of the existing Licenses to which Assignor is licensee (and any Patents, Marks and Copyrights currently licensed by others to Assignor pursuant to such Licenses) in each case to the extent (but only to the extent) that the applicable License lawfully prohibits such collateral assignment or grant of a security interest without the consent of the other applicable party thereto and such consent has not been

obtained; provided further, however, that, upon Assignee's request, Assignor will use their best efforts to obtain any consent needed to subject any such property to this collateral assignment and grant of a security interest.

3. **Restrictions on Future Agreements.** Assignor agrees and covenants that until the Obligations shall have been indefeasibly and irrevocably satisfied in full (except for any obligations under Sections 3.16, 3.19 and 3.23 of the Loan Agreement) and the Loan Agreement shall have been terminated (except with respect to any obligations under Sections 3.16, 3.19 and 3.23 of the Loan Agreement), Assignor will not take any action or enter into any agreement, including, without limitation entering into any license agreement, as licensor, which is inconsistent with Assignor's obligations under this Assignment, and Assignor further agrees and covenants that it will not take any action, or permit any action to be taken by others subject to its control, including licensees under its control, or fail to take any action, which would adversely affect the validity or enforcement or nature of the rights transferred to Assignee under this Assignment. Except in the ordinary course of business, Assignor agrees and covenants not to sell or assign its interests in or grant any license under, the Patents, Marks, Copyrights or Licenses, without receiving the prior written consent of Assignee thereto, such consent not to be unreasonably withheld, delayed or conditioned.

4. **Certain Covenants, Representations and Warranties of Assignor.** Assignor covenants, represents and warrants that except as set forth on Schedule 4 hereto: (i) the Patents, Marks, Copyrights and Licenses are subsisting, have not been adjudged invalid or unenforceable in whole or in part, and, to the best of Assignor's knowledge, are not currently being challenged in any way; (ii) none of the Patents, Marks, Copyrights and Licenses have lapsed or expired or have been abandoned, whether due to any failure to pay any maintenance or other fees or make any filing or otherwise, except as determined by Assignor in its reasonable business judgment; (iii) each of the Patents, Marks, Copyrights and Licenses is valid and enforceable and Assignor is unaware of any invalidating prior art (including public uses and sales) relative to the Patents, except which would not reasonably be expected to have a material adverse effect on the business of the Assignor, and is unaware of any impairments to the Patents, Marks, Copyrights or Licenses which would not reasonably be expected to have a material adverse effect on the business of the Assignor; (iv) to the best of Assignor's knowledge, no claim has been made that the use of any of the Patents, Marks, Copyrights or Licenses constitutes an infringement, except which would not reasonably be expected to have a material adverse effect on the business of the Assignor; (v) Assignor owns the entire right, title and interest in and to each of the Patents, Marks and Copyrights (other than those being licensed to Assignor pursuant to the Licenses) free and clear of any Liens and encumbrances of every kind and nature, and the Licenses are valid and subsisting licenses with respect to the Patents, Marks, Copyrights described therein, free and clear of any Liens and encumbrances of every kind and nature arising by, through or under Assignor, in each case except: for (A) rights granted by Assignor pursuant to the applicable licenses as listed on Schedule C and as hereafter granted by the Assignor in the ordinary course of business, (B) Liens listed on Schedule 4 hereto, (C) Liens and encumbrances in favor of Assignee pursuant to this Assignment or the other Loan Documents; and (D) liens and encumbrances otherwise permitted by or under the Loan Agreement, (vi) as of the date hereof,

the Patents, Marks and Copyrights and Licenses listed on Schedules A, B and C, respectively, constitute all such items in which Assignor have any right, title or interest; (vii) Assignor has the unqualified right to enter into this Assignment and perform its terms (viii) Assignor will continue to use proper statutory notice in connection with its use of the Patents, Marks and Copyrights; and (ix) Assignor will use standards of quality in its manufacture of products sold under the Marks consistent with those currently employed by Assignor.

5. **New Patents, Marks, Copyrights and Licenses.** If, before the Obligations shall have been indefeasibly and irrevocably satisfied in full and the Loan Agreement shall have been terminated, Assignor shall (i) obtain rights to any new patentable inventions, trademarks, service marks, trademark or service mark registrations, copyrights, copyright registrations, trade names or licenses, or (ii) become entitled to the benefit of any patent, trademark or service mark application, trademark, service mark, trademark or service mark registration, copyrights, copyright registrations, license or license renewal, or patent for any reissue, division, continuation, renewal, extension, or continuation-in-part of any Patent or any improvement on any Patent, the provisions of Section 2 above shall automatically apply thereto and Assignor shall give to Assignee prompt written notice thereof. Assignor hereby authorizes Assignee to modify this Assignment by noting any future acquired Patents, Marks, Copyrights on Schedule A or B and any Licenses and licensed Patents, Marks or Copyrights on Schedule C, as applicable; provided, however that the failure of Assignee to make any such notation shall not limit or affect the obligations of Assignor or rights of Assignee hereunder.

6. **Royalties; Terms; Assignee's Use.** Following the occurrence of an Event of Default, Assignor hereby agrees that the use by Assignee of all Patents, Marks, Copyrights and Licenses as described above shall be worldwide (or in the case of the Patents, Marks and Copyrights licensed to Assignor such smaller geographic location as may be specified for such Assignor's use in the applicable License) and without any liability for royalties or other related charges from Assignee to Assignor. The term of the assignments granted herein shall extend until the earlier of (i) the expiration of each of the respective Patents, Marks, Copyrights and Licenses assigned hereunder, or (ii) indefeasible and irrevocable satisfaction in full of the Obligations and termination of the Loan Agreement (except for any obligations under Sections 3.16, 3.19 and 3.23 thereof). Until an Event of Default, Assignee may use all Patents, Marks, Copyright and Licenses in the ordinary course of its business.

7. **Assignee's Right to Inspect.** Assignee shall have the right, at any reasonable time during normal business hours after reasonable notice and from time to time, to examine Assignor's books, records and operations, including, without limitation, Assignor's quality control processes. Such inspectors shall not unreasonably or materially interfere with Assignor's use of the Patents, Marks, Copyrights or Licenses or the operation of Assignor's business.

8. **Termination of Security Interest.** This Assignment is made for collateral purposes only. Upon indefeasible and irrevocable satisfaction in full of the Obligations and termination of the Loan Agreement (except for any obligations under Sections 3.16, 3.19 and 3.23 thereof), subject to any disposition thereof which may have been made by Assignee pursuant hereto or

pursuant to any of the other Loan Documents, Assignee's security interest in the Patents, Marks, Copyrights and Licenses shall automatically terminate. Upon indefeasible and irrevocable satisfaction in full of the Obligations and termination of the Loan Agreement (except for any obligations under Sections 3.16, 3.19 and 3.23 thereof), Assignee shall, at Assignor's expense, promptly execute and deliver to Assignor all termination statements and other instruments as may be necessary or proper to terminate Assignee's security interest in, and to revert in Assignor all right, title and interest in and to, the Patents, Marks, Copyrights, and Licenses transferred to Assignee pursuant to this Assignment, subject to any disposition thereof which may have been made by Assignee pursuant hereto or pursuant to any of the other Loan Documents. Any such termination statements and instruments shall be without recourse upon or warranty by Assignee.

9. **Duties of Assignor.** Assignor shall have the duty, at its expense, and in the exercise of its reasonable business judgment (provided that any actions of Assignor shall not substantially reduce the value of the Collateral) (i) to prosecute diligently any patent application of the Patents, any application respecting the Marks, and any copyright application of the Copyrights pending as of the date hereof or thereafter, and (ii) to preserve, maintain and enforce against infringement all rights in patent applications and patents constituting the Patents, in trademark or service mark applications, trademarks, service marks, and trademark or service mark registrations constituting the Marks, and in copyright applications, copyrights and copyright registrations constituting the Copyrights.

10. **Assignee's Right to Sue.** From and during the occurrence of an Event of Default, Assignee shall have the right, but shall in no way be obligated, to bring suit in its own effort to enforce the Patents, the Marks, the Copyrights and the Licenses, and any licenses thereunder, and, if Assignee shall commence any such suit, Assignor shall, at the request of Assignee, do any and all lawful acts and execute any and all proper documents required by Assignee in aid of such enforcement, and Assignor shall promptly, upon demand, reimburse and indemnify Assignee for all reasonable costs and expenses incurred by Assignee in the exercise of its rights under this Section 10.

11. **No Waiver.** No course of dealing between Assignor and Assignee, nor any failure to exercise, nor any delay in exercising, on the part of Assignee, any right, power or privilege hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any right, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, power or privilege.

12. **Severability.** The provisions of this Assignment are severable, and if any clause or provision shall be held invalid and unenforceable in whole or in part in any jurisdiction, then such invalidity or unenforceability shall affect only such clause or provision, or part thereof, in such jurisdiction, and shall not in any manner affect such clause or provision in any other jurisdiction, or any other clause or provision of this Assignment in any jurisdiction.

13. **Modification.** This Assignment cannot be altered, amended or modified in any way, except as specifically provided in Section 5 hereof or by a writing signed by the parties hereto.

14. **Further Assurances.** Assignor shall execute and deliver to Assignee, at any time or times hereafter at the request of Assignee, all agreements and documents (including, without limitation, any as may be deemed desirable by Assignee for filing or recording with any Patent and Trade Mark Office, and any successor thereto) and take all such actions (including, without limitation, paying the cost of filing or recording any of the foregoing in all public offices reasonably deemed desirable by Assignee), as Assignee may reasonably request, to evidence, Assignee's interest in the Patents, Marks, Copyrights and Licenses and the goodwill associated therewith and enforce Assignee's rights under this Assignment.

15. **Cumulative Remedies; Power of Attorney; Effect on Loan Documents.** All of Assignee's rights and remedies with respect to the Patents, Marks, Copyrights and Licenses, whether established hereby, by any of the Loan Documents or otherwise, or by any other agreements or by law shall be cumulative and may be exercised singularly or concurrently. Assignor hereby constitutes and appoints Assignee as Assignor's true and lawful attorney-in-fact, with full power of substitution in the premises, with power at any time following the occurrence and during the continuance of an Event of Default, to (i) endorse Assignor's name on all applications, documents, papers and instruments determined by Assignee in its sole discretion as necessary or desirable for Assignee in the use of the Patents, Marks, Copyrights and Licenses, (ii) take any other actions with respect to the Patents, Marks, Copyrights and Licenses as Assignee reasonably deems to be in the best interest of Assignee, (iii) grant or issue any exclusive or non-exclusive license under the Patents, Marks or Copyrights to any Person, or (iv) assign, pledge, convey or otherwise transfer title in or dispose of the Patents, Marks, Copyrights or Licenses to any Person. Assignor hereby ratify all that such attorney shall lawfully do or cause to be done by virtue hereof. This power of attorney shall be irrevocable until the Obligations (except for any obligations contained in Sections 3.16, 3.19 and 3.23 of the Loan Agreement) shall have been indefeasibly and irrevocably satisfied in full and the Loan Agreement shall have been terminated (except for any obligations contained in Sections 3.16, 3.19 and 3.23 of the Loan Agreement). Assignor acknowledge and agree that this Assignment is not intended to limit or restrict in any way the rights and remedies of Assignee under the Loan Agreement or any of the Loan Documents but rather is intended to facilitate the exercise of such rights and remedies. Assignee shall have, in addition to all other rights and remedies given it by the terms of this Assignment, all rights and remedies allowed by law and the rights and remedies of a secured party under the Uniform Commercial Code as enacted in any jurisdiction in which the Patents, Marks, Copyrights or Licenses may be enforced. Assignor hereby releases Assignee from any and all claims, causes of action and demands at any time arising out of or with respect to any actions taken or omitted to be taken by the Assignee under the powers of attorney granted herein.

16. **Binding Effect; Benefits.** This Assignment shall be binding upon Assignor and its respective successors and assigns and shall inure to the benefit of Assignee and its respective successors, assigns and nominees.

17. **Acknowledgments and Waiver.** ASSIGNOR ACKNOWLEDGES AND AGREES THAT THE TRANSACTIONS DESCRIBED HEREIN ARE COMMERCIAL TRANSACTIONS AND WAIVES ITS RIGHTS TO NOTICE AND HEARING UNDER CHAPTER 903a OF THE CONNECTICUT GENERAL STATUTES, OR AS OTHERWISE ALLOWED BY ANY STATE OR FEDERAL LAW WITH RESPECT TO ANY PREJUDGMENT REMEDY WHICH THE ASSIGNEE MAY DESIRE TO USE, AND FURTHER WAIVES DILIGENCE, DEMAND, PRESENTMENT FOR PAYMENT, NOTICE OF NONPAYMENT, PROTEST AND NOTICE OF PROTEST AND NOTICE OF ANY RENEWALS OR EXTENSIONS OF ANY OF THE LOANS. NOTWITHSTANDING THE FOREGOING, ASSIGNOR DOES NOT WAIVE ANY NOTICE TO WHICH IT IS SPECIFICALLY ENTITLED UNDER THIS ASSIGNMENT.

18. ASSIGNOR HEREBY WAIVES TRIAL BY JURY IN ANY COURT AND IN ANY SUIT, ACTION, OR PROCEEDING OR ANY MATTER ARISING IN CONNECTION WITH OR IN ANY WAY RELATED TO THE FINANCING TRANSACTIONS OF WHICH THIS ASSIGNMENT IS A PART AND/OR THE ENFORCEMENT OF ANY OF THE ASSIGNEE'S RIGHTS AND REMEDIES. ASSIGNOR ACKNOWLEDGES THAT IT MAKES THIS WAIVER KNOWINGLY, VOLUNTARILY AND ONLY AFTER EXTENSIVE CONSIDERATION OF THE RAMIFICATIONS WITH LEGAL COUNSEL OF ITS CHOICE.

19. **Governing Law.** This Assignment shall be governed by and construed in accordance with the internal law of the State of Connecticut without giving effect to any conflict or choice of laws rules or provisions.

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IN WITNESS WHEREOF, the undersigned have caused this Collateral Assignment of Patents, Trademarks, Copyrights and Licenses to be duly executed and delivered as of the date first above written.

Witnessed by:

Aldith C. Dewar
Name: Aldith C. DEWAR
Marie Kuban
Name: Marie Kuban

NUFERN

By: Alan T. Levesque
Name: Alan T. Levesque
Title: Vice President
(Duly Authorized)

ACKNOWLEDGMENT OF ASSIGNEE

Assignee hereby acknowledges the foregoing Assignment and agrees to be bound by its terms.

**CONNECTICUT DEVELOPMENT
AUTHORITY**

By: Karin A. Lawrence
Name: Karin A. Lawrence
Title: Senior Vice President – Public and
Investment Finance

SIGNATURE PAGE TO COLLATERAL ASSIGNMENT OF PATENTS, ETC.

NUFERN INTELLECTUAL PROPERTY SCHEDULES

These Schedules are being delivered pursuant to that Collateral Assignment of Patents, Trademarks, Copyrights and Licenses dated as of February 18, 2005, by and between the Connecticut Development Authority and Nufern (the "Borrower") (the "Agreement"). Capitalized terms used herein shall have the meanings ascribed to such terms in the Agreement unless otherwise defined herein. For the purpose of these Schedules, disclosure in any one portion of the Schedule with respect to one section of the Agreement shall be deemed to be disclosure with respect to all applicable sections of the Agreement to the extent that its relevance to the other sections of the Agreement is reasonably apparent from the disclosure. The inclusion of, or reference to, any item on any schedule herein is not an admission that such item or information is material or meets all criteria set forth in the Agreement for inclusion in such schedule and **shall not directly or indirectly affect the scope of the disclosure obligation of the Borrower under the Agreement.** Any agreements or documents set forth in the attached Schedules are qualified in their entirety by the specific terms of such agreements or documents. Except as otherwise limited herein, all disclosures made herein are made as of the date hereof, and the accuracy of such disclosure is confirmed only as of the date hereof and not at anytime thereafter.

SCHEDULES A and C

NUFERN PATENTS (Owned or Exclusively Licensed)

ACRONYM KEY: *DC = double clad; PM = polarization maintaining; LMA = large mode area; RED = rare earth doped*

TITLE	INVENTORS	APPLICATION/PATENT NUMBER	ADDITIONAL DESCRIPTION
Cladding-pumped optical fiber and methods for fabricating	Tankala, Carter	US 6,477,307 B1	DC fiber for fiber lasers and amplifiers (shaped pump cladding)
Cladding-pumped optical fiber and methods for fabricating	Tankala, Carter	US 6,779,364 B2	Method of making DC fiber for fiber laser and amplifiers
Method and apparatus for communicating signals with an optical fiber	Seifert	US 6,793,411 B2	Improved optical alignment of laser diode pump or seed with optical fiber, such as fiber laser or amplifier
Cladding-pumped optical fiber	Carter, Tankala, Jacobson	US 6,625,363 B2	DC fiber for lasers and amplifiers (stress inducing particles in second cladding)
Double-clad optical fiber for lasers and amplifiers	Carter, Tankala, Seifert	US 6,687,445 B2	DC fiber for lasers and amplifiers (scattering regions in pump cladding)
Fiber for enhanced energy absorption	Po	US 6,516,124 B2	DC fiber (shaped inner cladding)
Optical fiber	Po	US 2004/0208464 Application No.: 10/755,749 To Issue	Air clad DC fiber for high power pumping of fiber lasers and amplifiers
Raman fiber laser	Po, Demidov	US 2002/0126714 Application No.: 10/068,433 To Issue	Fiber laser based on Raman scattering
Optical fiber having high temperature insensitivity over a temperature range centered on a selected temperature and method of making same	Carter, Jacobson, Tankala, Farroni	Issued: US 6,832,026 B2 US 2003/0086648	Temperature insensitive fiber useful for fiber Bragg gratings
Method of providing an optical fiber having a minimum temperature sensitivity at a selected temperature	Farroni, Tankala, Carter, Jacobson	US 2004/0028361 Application No.: 10/436,623 To Issue	Method of making temperature insensitive fiber useful for fiber Bragg gratings
Compression-tunable fiber laser and compression-resistant optical fiber for lasers	Carter	US 2004/0156403 Application No.: 10/734,632	Wavelength tunable fiber laser

TITLE	INVENTORS	APPLICATION/PATENT NUMBER	ADDITIONAL DESCRIPTION
Double-clad optical fiber for lasers and amplifiers	Carter, Tankala Seifert	US 2004/0069019 Application No.: 10/860,396	Method of making DC fiber for lasers and amplifiers
Optical fiber having an expanded mode field diameter and methods of providing such a fiber	Tankala	US 2004/0096174 Application No.: 10/438,680	Microstructured fiber having expanded mode field diameter
Multimode polarization maintaining double clad fiber	Farroni, Manyam,	10/910,924	Multimode PM/DC fiber for fiber lasers and amplifiers
Cladding-pumped optical fiber and methods for fabricating	Tankala, Carter	10/875,749	DC fiber for fiber lasers and amplifiers (glass-glass DC with circular perimeter of second cladding) for high power pumping of fiber lasers and amplifiers
Improved optical fiber (1)	Farroni, Tankala, Carter	US 2004/0086245 Application No.: 10/619,376	(1) Photosensitive/ PM/DC fiber for lasers (F/Ge core)
Improved optical fiber (2)			(2) Photosensitive/ PM/DC fiber for fiber lasers (B/Ge core)
Improved optical fiber (3)			(3) All Round PM/DC fiber for fiber lasers and amplifiers
Portable laser	Seifert, Alam	10/867,295	Portable laser design, including fiber laser
Optical fiber for handling higher powers	Samson, Carter	10/820,475	PM and PM/DC "Batman" fiber for fiber lasers and amplifiers
Optical fiber with suppressed stimulated Brillouin scattering and method for making such a fiber	Manyam, Tankala, Jacobson	10/981,437	Fiber, and method of making, having increased threshold for onset of SBS; useful as high power delivery fiber
Fiber optic article including fluorine	Farroni, Manyam, Jacobson, Tankala, Carter	10/912,666	LMA Er/Yb doped fiber for fiber lasers and amplifiers (fluorine doped)
Fiber optic article with inner region	Farroni, Manyam, Jacobson, Tankala, Carter	10/911,812	LMA Er/Yb doped fiber for fiber lasers and amplifiers (shaped pedestal)
Apparatus and methods for accommodating loops of optical fiber	Seifert	PCT/US04/31723	Coil form for fiber for fiber lasers and amplifiers, including method and apparatus for winding the coil form.

TITLE	INVENTORS	APPLICATION/PATENT NUMBER	ADDITIONAL DESCRIPTION
Method and apparatus for providing light having a selected polarization with an optical fiber	Abramczyk, Manyam, Samson, Tankala	60/540,799 PCT/US05/02908	Polarized fiber laser using coiling and standard PM fiber
Improved optical fiber for delivering optical energy to or from a work object	Manyam, Seifert, Tankala	60/567,533	Power delivery fiber having selected beam shape (select index of refraction profile)
Optical fiber having reduced defect density	Seifert, Manyam, Alam, Tankala, Abramczyk, Guertin, Jacobson	60/567,534	Power delivery fiber (clean fabrication of HCS or TECS coated fiber)
Fiber for enhanced energy absorption	Po	US 2004/0156606 Application No.: 10/653,435	DC LMA fiber for fiber lasers and amplifiers
Ring core fiber	Po	US 2004/0156608 Application No.: 10/675,350	LMA fiber for fiber lasers and amplifiers (multimode ring core that periodically self focuses)
Optical fiber and system containing same	Po, Demidov	US 2004/0156588 Application No.: 10/714,524	Raman fiber system
Multi-wavelength optical fiber	Po, Demidov	US 2004/0179797 Application No.: 10/735,862	Fiber laser having multiple output wavelengths (Raman based)
Optical fiber amplifier	Demidov, Starodoumov	10/771,002	Raman fiber amplifier
Fiber for enhanced energy absorption	Po	EPO 02748370.0	European counterpart to US application
Ring core fiber	Po	EPO 02757827.7	European counterpart to US application
Optical fiber	Po	EPO 02759124.7	European counterpart to US application
Optical fiber amplifier	Demidov, Starodoumov	EPO 02750386.1	European counterpart to US application
Photodarkening resistant fiber	Carter	Disclosure Received	Improved fiber for fiber lasers and amplifiers
Method and apparatus for sensing light (1)	Seifert	Application Drafted	Monitoring subassembly performance by sensing ambient light
Method and apparatus for sensing light (2)	Seifert	Filed: (1) and (2) combined Application No.: 60/635,923	Sensing stray light from splices, bends and light from gratings for monitoring subassembly performance
Method and apparatus for thermal management of subassemblies	Seifert	Application in Progress	Thermal management of gratings, splices, fiber coils and the like
High power fiber grating	Carter	Disclosure Received	Fiber Bragg gratings for high power lasers and amplifiers
Optical fiber with micro-structured cladding	Manyam, Tankala	Filed: Application No.: 11/004,344	DC/Microstructured fiber having randomly oriented regions

TITLE	INVENTORS	APPLICATION/PATENT NUMBER	ADDITIONAL DESCRIPTION
Brightness converter	Feliksik, Tankala, Seifert	Application Drafted	Modular fiber laser
Double clad fiber	Seifert	Application Drafted	Air clad DC fiber for fiber lasers and amplifiers
Fiber optic coupler, optical fiber useful with the coupler and/or a pump light source, and methods of coupling light	Seifert, O'Connor, Manyam, Jacobson	Filed: Application No.: 60/646,183	Anti-guiding laser diode pigtail
Composite polymer structured fiber coating	Seifert	Disclosure Received	Photonic Bandgap DC fiber/polyimide coated fiber for fiber lasers and amplifiers

SCHEDULE C

U.S. PATENTS NON-EXCLUSIVELY LICENSED

(International equivalents of the following are also licensed but not listed)




UNITED TECHNOLOGIES CORPORATION

4,761,073; 4,806,012; 4,950,883; 4,996,419; 5,007,705; 5,042,898; 5,305,335; 5,317,576; 5,394,488; 5,399,854; 5,401,956; 5,426,297; 5,469,520; 5,493,113; 5,493,390; 5,511,083; 5,513,913; 5,546,481; 5,564,832; 5,594,747; 5,604,836; 5,657,406; 5,666,372; 5,691,999; 5,770,155.

BRITISH TELECOMMUNICATIONS PLC

4,799,946; 4,923,279; Re. 35,946; 4,936,650; 5,278,850; 5,412,672; 5,594,578.

SCHEDULE B: TRADEMARKS

TRADEMARK	APPLICATION / REGISTRATION NO.	GOODS/SERVICES	COUNTRY/ REGION
<i>NUFERN</i>	2,602,794	Fiber optics; Custom manufacture of fiber optics	US
<i>NUFERN</i>	2,743,071	Fiber optic cable; Custom manufacture of fiber optic cable	US
<i>NUFERN</i>	002067957	Fiber optic cable; Custom manufacture of fiber optic cable	EUROPE
<i>NUFERN</i>	864028	Fiber optic cables; Custom manufacture of fiber optic cables	AUSTRALIA
	2,602,310	Fiber optics; Custom manufacture of fiber optics	US
	864122	Fiber optic cables; Custom manufacture of fiber optic cables	AUSTRALIA
<i>DRIVEN TO LIGHT</i>	2,784,242	Fiber optics; Custom manufacture of fiber optics	US
<i>NULABS</i>	78466521	Technical reports, articles, or tutorials relating to Optics; Design, testing or evaluation services relating to Optics	US
	Nuferm green, to be filed	Fiber spools; fiber optic devices	US
<i>PUMPGUARD</i>	To be filed	Fiber Optics	US

Schedule 4: Exceptions

On April 17, 2003, the Borrower received a letter from William Marvin, licensing counsel for OFS Fitel, identifying three U.S. patents held by OFS Fitel and suggesting that the Borrower may be practicing these patents in connection with the manufacture and sale of some of the Borrower's optical fibers. Mr. Marvin requested a response from the Borrower and invited the Borrower to discuss potential licensing of these patents if, in fact, the Borrower was practicing these patents. The Borrower responded to the letter on May 2, 2003 and more substantively in a letter dated May 15, 2003 stating that the Borrower had opinions from outside counsel with respect to two of the patents that the Borrower does not infringe as its products and processes do not read on the claims of those patents. These opinions were obtained by the Borrower in 2002 in the course of its ordinary product clearance process. With respect to the third patent, the Borrower stated that it had only become aware of this patent recently and had learned that there were multiple arguments against the validity of the patent. The Borrower also stated that it had identified design-arounds to the patent which had been approved by outside counsel. The Borrower has also obtained an opinion from competent outside counsel that the third patent is invalid and unenforceable and that the Borrower's design-around avoids the patent. The Borrower relayed this information to OFS Fitel in May 2003 and heard nothing from them until August of 2004, more than a year later. The Borrower submitted a claim to its intellectual property insurer relating to this event for coverage of litigation defense costs if the matter cannot be resolved amicably. Representatives of the Borrower and OFS met on February 4, 2005 and discussed resolution of the matter by licensing of other OFS patents in areas of interest to the Borrower and in which the Borrower does not currently participate.