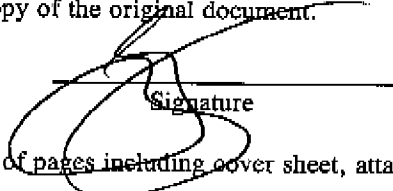


# **RECORDATION FORM COVER SHEET PATENTS ONLY**

File No.: U008 0548

<b>1. Name(s) of conveying party(ies):</b>  <p align="center">The University of British Columbia</p>		<b>2. Name and address of receiving party(ies):</b>  Name: Galian Photonics Inc.  Street Address: 2800 - 666 Burrard Street  City: Vancouver  Province: BC  Country: Canada  Postal Code: V6C 2Z7  Additional name(s) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>3. Nature of Conveyance:</b> <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: 11 July 2002			
<b>4. Application number(s) or patent number(s):</b>  If this is filed with a new application, the application's execution date is: _____  Patent Application Serial No.(s): 09/941100      Patent No.(s): _____  Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>5. Name and address of party to whom correspondence concerning document should be mailed:</b>  Name: Oyen Wiggs Green & Mutala Attention: Gavin N. Manning  Address: Suite 480—The Station 601 West Cordova Street Vancouver, British Columbia CANADA V6B 1G1  Tel.: (604) 669-3432 Fax: (604) 681-4081		<b>6. Total no. of applications and patents involved:</b> [1]	
		<b>7. Total fee (37 CFR §1.21(h))</b> \$ <u>40.00</u>	
		<b>8. Deposit Account Number:</b> 02-1037  (File two signed copies if paying by deposit account)	
DO NOT USE THIS SPACE			
<b>9. Statement and Signature.</b> 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.			
<u>Gavin N. Manning</u> Name of Person Signing		 Signature	
		<u>6 January 2004</u> Date	
Total Number of pages including cover sheet, attachments, and document: [11]			

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FILE

**TECHNOLOGY ASSIGNMENT AGREEMENT**

BETWEEN:

**THE UNIVERSITY OF BRITISH COLUMBIA**, a corporation continued under the *University Act* of British Columbia and having its administrative offices at 2075 Wesbrook Mall, in the City of Vancouver, in the Province of British Columbia, V6T 1Z1

(the "University")

AND:

**GALIAN PHOTONICS INC.**, a corporation incorporated under the laws of Canada, and having a registered and records office at 2800 - 666 Burrard Street, in the City of Vancouver, in the Province of British Columbia, V6C 2Z7

("Galian")

**WHEREAS:**

A. The University has been engaged in research during the course of which it has invented, developed and/or acquired technology relating to planar photonic band-gap materials as described in Schedule "A" hereto, which research was undertaken by and under the direction of Dr. Jeff Young in the Physics and Astronomy Department of the University;

B. The University entered into a license agreement with Galian, formerly known as BandGap Photonics Inc., dated December 4, 2000 (the "*First License*") and a second license agreement with Galian dated July 12, 2001 (the "*Second License*") (together, the "*License Agreements*") which contemplated the assignment of the Technology and any Improvements upon the completion of certain conditions; and

C. Galian has now completed to the University's satisfaction such conditions and is seeking to obtain from the University an assignment of all its right, title and interest in and to the Technology and any Improvements on the terms and conditions set out in this Agreement.

NOW THEREFORE THIS AGREEMENT WITNESSETH that in consideration of the premises and of the mutual covenants herein set forth, the parties hereto have covenanted and agreed as follows:

**1.0 DEFINITIONS:**

1.1 In this Agreement, unless a contrary intention appears, the following words and phrases shall mean:

- (a) "**Closing Date**": the date of execution of this Agreement;
- (b) "**Copyright**": any and all copyrights granted, applied for or existing, whether registered under the *Copyright Act* or not, in the Technology or any Improvement;

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- (c) **"Improvements"**: improvements, variations, updates, modifications, and enhancements made by either the University or Galian to the Technology any time after December 4, 2000 which can not be practised without Infringement of the Patent rights or Copyright licensed under the License Agreements;
- (d) **"Information"**: any and all Technology and any and all Improvements and derivative works based on the Technology and any and all Improvements, the terms and conditions of this Agreement and any and all oral, written, electronic or other communications and other information disclosed or provided by the parties including any and all analyses or conclusions drawn or derived therefrom regarding this Agreement and information developed or disclosed hereunder, or any party's processes, formulations, analytical procedures, methodologies, products, samples and specimens or functions;
- (e) **"Inventors"**: means Jeff Young, Allan Cowan, William J. Mandeville, Paul Paddon and Vighen Pacradouni, Paul Barclay and Javed Iqbal;
- (f) **"Know-How"**: All methods, information, procedures, processes, techniques, engineering and data invented, authored, developed, made, acquired or learned by the Inventors in connection with the Technology described in Schedule "A" hereto whether or not patentable;
- (g) **"Patent Rights"**: The issued patents and patent applications identified in Schedule "A" and all rights to patent any inventions included in the Technology or the Improvements, and all corresponding and derivative rights, including without limitation, corresponding foreign applications, treaty and convention rights, divisional, continuation, continuation-in-part, extension, renewal, reissue rights, applications and registrations;
- (h) **"Software"**: Includes all source and object code or any modifications or enhancements as may be made from time to time relating to the Technology; and
- (i) **"Technology"**: the technology, inventions and computer programs identified in Schedule "A", including any and all knowledge, know-how and/or technique or techniques invented, developed and/or acquired, prior to December 4, 2000 by the University or the Inventors relating to that technology and those inventions and computer programs described in Schedule "A" hereto (as amended from time to time), including, without limitation:
- (i) the Patent Rights;
  - (ii) the Software (including the source and object code); and
  - (iii) the Copyright;
  - (iv) the Information; and
  - (v) all research, data, specifications, instructions, manuals, papers or other materials of any nature whatsoever, whether written or otherwise, relating to same.

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## 2.0 ASSIGNMENT OF THE TECHNOLOGY AND ANY IMPROVEMENTS:

2.1 In consideration of the payments and covenants on the part of Galian contained herein, the University hereby transfers, sells and assigns all of its right, title and interest in and to the Technology, and any Improvements to Galian effective on the Closing Date on the terms and conditions set forth in this Agreement.

2.2 The University hereby grants to Galian a non-exclusive, royalty-free, fully paid-up, worldwide license to do all things in connection with the Know-How that the University would have the right to do but for restrictions imposed on the University by this Agreement.

2.3 Notwithstanding Article 2.1 above, Galian hereby:

- (a) grants to the University a world-wide, fully paid up, non-exclusive license to use the Technology and any Improvements without charge in any manner whatsoever for research, scholarly publication, educational or other non-commercial use subject always to subparagraph (b) below; and
- (b) acknowledges and agrees that the University, its faculty, researchers and students, shall not be restricted from presenting at symposia, national or regional professional meetings, or from publishing in journals or other publications, accounts of its research relating to the Technology and Improvements, provided that Galian shall have been furnished copies of the disclosure proposed therefor at least 60 days in advance of the presentation or publication date and does not within 30 days after receipt of the proposed disclosure object to such presentation or publication. Any objection to a proposed presentation or publication shall specify the portions of the presentation or publication considered objectionable (the "**Objectionable Material**"). Upon receipt of notification from Galian that any proposed publication or disclosure contains Objectionable Material, the University and Galian shall work together to revise the proposed publication or presentation to remove or alter the Objectionable Material in a manner acceptable to Galian, in which case Galian shall withdraw its objection. If an objection is made, disclosure of the Objectionable Material shall not be made for a period of six months after the date Galian has received the proposed publication or presentation relating to the Objectionable Material. The University shall co-operate in all reasonable respects in making revisions to any proposed disclosures if considered by Galian to contain Objectionable Material. The University shall not be restricted from publishing or presenting the proposed disclosure as long as the Objectionable Material has been removed. After the six month period has elapsed the University shall be free to present and/or publish the proposed publication or presentation whether or not it contains Objectionable Material.

2.4 If the University is in material breach of Article 2.3, Galian will be entitled to give the University notice describing the event and confirming Galian's intention to terminate the license granted under Article 2.3. If, within thirty (30) days following delivery of such notice, the event is not reversed or cured in all material respects, or Galian is not provided with satisfactory assurances that the obligations of the University under Article 2.3 will be performed, then Galian will be entitled to terminate the license granted under Article 2.3 by giving written notice of termination to the University. Notwithstanding the foregoing, a breach of Article 2.3 which results from an action or omission by a person employed by or otherwise affiliated with Galian (including, without limitation, Jeff Young), will not constitute a breach of Article 2.3.

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2.5 The rights granted to the University pursuant to Article 2.3 shall be irrevocable (subject to Article 2.4), royalty-free and perpetual.

2.6 The license granted to the University pursuant to Article 2.3 is personal to the University and is not granted to any affiliated entities.

2.7 Galian requires of the University, and the University agrees insofar as it may be permitted to do so at law, that this Agreement, and each part of it, is confidential and shall not be disclosed to third parties as the Licensee claims that such disclosure would or could reveal commercial, scientific or technical information and would significantly harm Galian's competitive position. Notwithstanding anything in this Article, the parties hereto acknowledge and agree that the University may identify the title of this Agreement, the parties to this Agreement and the inventors of the Technology and any Improvements.

2.8 The University and Galian agree that they shall each at all times hereafter execute and deliver, at the reasonable request of the other party hereto, all such further documents and instruments and shall do and perform all such reasonable acts as may be necessary to give full effect to the intent and meaning of this Agreement.

### 3.0 TERMINATION OF THE LICENSE AGREEMENTS:

3.1 The parties hereto agree that the License Agreements shall be terminated as of the Closing Date. The parties hereto confirm that notwithstanding the termination of the License Agreements, the provisions in the following articles of the License Agreements shall remain in full force and effect:

- (a) Articles 4.0 of each of the License Agreements ("License Fee");
- (b) Article 5.0 of the First License ("New Technology");
- (c) Article 8.1 (including the cross-reference to Article 2.3) of the First License and Article 7.1 (including the cross-reference to Article 2.3) of the Second License ("Disclaimer of Warranty"); and
- (d) Article 9.0 of the First License and Article 8.0 of the Second License ("Indemnity and Limitation of Liability").

### 4.0 PAYMENT OF PURCHASE PRICE:

4.1 In consideration of the assignment and transfer of the Technology and any Improvements, Galian shall:

- (a) within thirty (30) days of presentation of itemized invoices, reimburse the University for all legal costs incurred by the University in connection with such assignment of the Technology and Improvements; and
- (b) on execution of this Agreement, deliver to the University a certified cheque or solicitors trust cheque in the amount of \$50,000 made payable to the University representing a grant to the University to be used for the purchase of equipment by the Department of Physics and Astronomy for use in photonics crystals research.

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**5.0 PATENTS:**

5.1 The University will deliver, or cause to be delivered, to Galian such documents as Galian may reasonably require to perfect the transfer and assignment of any and all patents and/or patent applications in the Technology and any Improvements and thereafter, Galian shall be responsible for all administration and costs incurred in connection with the prosecution, maintenance of any patents or patent applications in connection with the Technology and any Improvements. Galian shall also be responsible for all costs incurred by the University in connection with any patents or patents applications in connection with the Technology and any Improvements until the completion of the assignment of such patents and patents applications contemplated herein.

**6.0 DISCLAIMER OF WARRANTY:**

6.1 The University makes no representations, conditions or warranties, either express or implied, with respect to the Technology or any Improvements. Without limiting the generality of the foregoing, the University specifically disclaims any implied warranty, condition or representation that the Technology or any Improvements:

- (a) shall correspond with a particular description;
- (b) are of merchantable quality;
- (c) are fit for a particular purpose; or
- (d) are durable for a reasonable period of time.

The University shall not be liable for any loss, whether direct, consequential, incidental or special, which Galian suffers arising from any defect, error, fault or failure to perform with respect to the Technology or any Improvements, even if the University has been advised of the possibility of such defect, error, fault or failure. Galian acknowledges that it has been advised by the University to undertake its own due diligence with respect to the Technology and any Improvements.

6.2 Nothing in this Agreement shall be construed as:

- (a) a warranty or representation by the University as to title to the Technology and/or any Improvement or that anything made, used, sold or otherwise disposed of under the licenses granted in the License Agreements is or will be free from infringement of patents, copyrights, trade-marks, industrial design or other intellectual property rights;
- (b) an obligation by the University to bring or prosecute or defend actions or suits against third parties for infringement of patents, copyrights, trade-marks, industrial designs or other intellectual property or contractual rights; or
- (c) the conferring by the University of the right to use in advertising or publicity the name of the University or any trade-marks owned by the University.

**7.0 INDEMNITY AND LIMITATION OF LIABILITY:**

7.1 Galian hereby indemnifies, holds harmless and defends the University, its Board of Governors, officers, employees, faculty, students, invitees and agents against any and all claims (including all legal fees and disbursements incurred in association therewith) arising out

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of the conferral or exercise of any rights under the Technology and any Improvements, including, without limiting the generality of the foregoing, against any damages or losses, arising from or out of the use of the Technology or any Improvements by Galian or their customers, licensees, sublicensees, end-users, agents, collaborators, affiliates, howsoever the same may arise save and except for any claims arising out of the gross negligence or wilful misconduct of the University.

7.2 Galian acknowledges that the transfer of the Technology and any Improvements hereunder is on an "as is" basis. Galian acknowledges that it has conducted its own due diligence with respect to the Technology and any Improvements.

7.3 In no event shall either party be liable for consequential or incidental damages arising from any breach or breaches of this Agreement.

#### 8.0 GALIAN'S WARRANTIES:

8.1 In order to induce the University to enter into the transactions contemplated by this Agreement, Galian hereby represents and warrants to the University that:

- (a) Galian is a company duly organized, validly existing and in good standing under the laws of Canada;
- (b) Galian has all necessary corporate power, authority and capacity to acquire the Technology and any Improvements and perform its obligations pursuant to this Agreement. The execution and delivery of this Agreement has been duly authorized by all necessary corporate action on the part of Galian; and
- (c) There has been an aggregate investment for the purchase of shares in the capital of Galian exceeding Cdn. \$10,000,000.00.

8.2 The representations and warranties contained in this Agreement shall survive the Closing Date and shall continue in full force and effect for the benefit of the University.

#### 9.0 GOVERNING LAW AND ARBITRATION:

9.1 This Agreement shall be governed by and construed in accordance with the laws of the Province of British Columbia and the laws of Canada in force therein without regard to its conflict of law rules. All parties agree that by executing this Agreement they have attorned to the jurisdiction of the Supreme Court of British Columbia. Subject to Articles 9.2 and 9.3, the British Columbia Supreme Court shall have exclusive jurisdiction over this Agreement.

9.2 In the event of any dispute arising between the parties concerning this Agreement, its enforceability or the interpretation thereof, the same shall be settled by a single arbitrator appointed pursuant to the provisions of the *Commercial Arbitration Act* of British Columbia, or any successor legislation then in force. The place of arbitration shall be Vancouver, British Columbia.

9.3 Nothing in Article 9.2 shall prevent a party hereto from applying to a court of competent jurisdiction for interim protection such as, by way of example, an interim injunction.

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**10.0 GENERAL:**

10.1 Nothing contained in this Agreement shall be deemed or construed to create between the parties hereto a partnership or joint venture. No party shall have the authority to act on behalf of any other party, or to commit any other party in any manner or cause whatsoever or to use any other party's name in any way not specifically authorized by this Agreement. No party shall be liable for any act, omission, representation, obligation or debt of any other party, even if informed of such act, omission, representation, obligation or debt.

10.2 Galian shall pay all Goods and Services Taxes and Provincial Sales Taxes and any related interest or penalty howsoever designated and imposed as a result of the existence or operation of this Agreement.

10.3 This Agreement shall enure to the benefit of and be binding upon the parties, and their respective successors and permitted assigns.

10.4 No condoning, excusing or overlooking by any party of any default by any other party in respect of any provisions of this Agreement shall operate as a waiver of such party's rights in respect of any continuing or subsequent default.

10.5 No exercise of a specific right or remedy by any party shall preclude it from, or prejudice it in, exercising another right or pursuing another remedy or maintaining an action to which it may otherwise be entitled either at law or in equity.

10.6 Marginal headings as used in this Agreement are for the convenience of reference only and do not form a part of this Agreement and are not to be used in the interpretation hereof.

10.7 The terms and provisions, covenants and conditions contained in this Agreement which by the terms hereof require their performance by the parties hereto after the expiration or termination of this Agreement shall be and remain in force notwithstanding such expiration or other termination of this Agreement for any reason whatsoever.

10.8 In the event that any article, part, section, clause, paragraph or subparagraph of this Agreement shall be held to be indefinite, invalid, illegal or otherwise voidable or unenforceable, the entire agreement shall not fail on account thereof, and the balance of the Agreement shall continue in full force and effect.

10.9 The parties hereto acknowledge that the law firm of Richards Buell Sutton has acted solely for the University in connection with this Agreement.

10.10 This Agreement sets forth the entire understanding between the parties and no modifications hereof shall be binding unless executed in writing by the parties hereto.

10.11 Time shall be of the essence of this Agreement.

10.12 Whenever the singular or masculine or neuter is used throughout this Agreement the same shall be construed as meaning the plural or feminine or body corporate when the context or the parties hereto may require.

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10.13 All amounts due and owing to the University hereunder but not paid by Galian on the due date thereof shall bear interest in Canadian dollars at the rate of one percent (1%) per month. Such interest shall accrue on the balance of unpaid amounts from time to time outstanding from the date on which portions of such amounts become due and owing until payment thereof in full.

IN WITNESS WHEREOF the parties hereto have hereunto executed this Agreement on the 11 day of July, 2002.

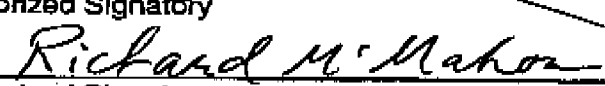
SIGNED FOR AND ON BEHALF of  
THE UNIVERSITY OF BRITISH COLUMBIA  
by its authorized signatories:

  
Authorized Signatory

  
Authorized Signatory

SIGNED FOR AND ON BEHALF of  
GALIAN PHOTONICS INC.  
by its authorized signatories:

  
Authorized Signatory

  
Authorized Signatory

**SCHEDULE "A"**  
**DESCRIPTION OF "TECHNOLOGY"**

UBC NO.	TITLE	INVENTORS	IP
00-102	Electromagnetic Scattering Code for Planar, 2-Dimensionally Textured Waveguides: Multiple Thin Gratings with Uniform Periodic Texture	Jeff Young Allan Cowan Vighen Pacradouni Paul Paddon	Software code
00-093	Angle-insensitive optical notch filter	Jeff Young Jody Mandeville Allan Cowan Vighen Pacradouni	Published
00-094	Layer Structure for Low-Loss Planar Photonic Crystal Waveguides	Jeff Young Allan Cowan Vighen Pacradouni	US Patent application 09/941,100 filed August 28, 2001 and PCT Application number WO 02/18994 published 7 March 2002
00-100	Angle-insensitive optical notch filter software	Jeff Young Allan Cowan Jody Mandeville Vighen Pacradouni	Software code
00-125	Electromagnetic Simulation Code for Finite-Sized Photonic Crystals	Paul Barclay Javed Iqbal	Software Code