

## PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT5208470

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| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT                                     |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT   |
| <b>CONVEYING PARTY DATA</b>   |  |
| <b>Name</b>   | <b>Execution Date</b>                              |
| GEORGE V. ELEFThERIADES   | 07/23/2018   |
| ALEX M. H. WONG   | 07/21/2018   |
| PHILIP CHRISTIAN  | 07/20/2018   |
| <b>RECEIVING PARTY DATA</b>   |  |
| <b>Name:</b>  | THE GOVERNING COUNCIL OF THE UNIVERSITY OF TORONTO |
| <b>Street Address:</b>  | BANTING INSTITUTE, 100 COLLEGE STREET, SUITE 413   |
| <b>City:</b>  | TORONTO, ONTARIO                                   |
| <b>State/Country:</b>   | CANADA   |
| <b>Postal Code:</b>   | M5G 1L5  |
| <b>PROPERTY NUMBERS Total: 1</b>  |  |
| <b>Property Type</b>  | <b>Number</b>                                      |
| <b>Application Number:</b>  | 16171955   |
| <b>CORRESPONDENCE DATA</b>  |  |
| <b>Fax Number:</b>  | (703)518-5499                                      |
| <i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i> |  |
| <b>Phone:</b>   | 7036841111   |
| <b>Email:</b>   | rangroup@ipfirm.com                                |
| <b>Correspondent Name:</b>  | HAUPTMAN HAM, LLP                                  |
| <b>Address Line 1:</b>  | 2318 MILL ROAD                                     |
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| <b>Address Line 4:</b>  | ALEXANDRIA, VIRGINIA 22314                         |
| <b>ATTORNEY DOCKET NUMBER:</b>  | 5011-043U  |
| <b>NAME OF SUBMITTER:</b>   | RANDY A. NORANBROCK                                |
| <b>SIGNATURE:</b>   | /Randy A. Noranbrock/                              |
| <b>DATE SIGNED:</b>   | 10/26/2018   |
| <b>Total Attachments: 5</b>   |  |
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source=EfiledAssgn\_1#page5.tif

## ASSIGNMENT

WHEREAS,

**George V. Eleftheriades** whose full post office address is

59 Dorset Road, Scarborough, Ontario, M1M 2S8, Canada, and

**Alex M.H. Wong** whose full post office address is

2 Driftwood Court, Richmond Hill, Ontario, L4E 3K8, Canada, and

**Philip Christian** whose full post office address is

301-7405 Goreway Drive, Mississauga, Ontario, L4T 0A3, Canada

hereinafter referred to collectively as "the Assignors", are co-inventors with **Alon Green** and **Peter Timmermans** of an invention relating to and entitled:

**"NEAR-GRAZING RETROREFLECTORS FOR TE AND/OR TM  
POLARIZATION" aka "Binary Retroreflective Metasurface"**

hereinafter referred to as the "Invention", as fully set forth and described in an application for Letters Patent identified as:

| Country | Serial Number | Filing Date         | Title  |
|---------|---------------|---------------------|--|
| U.S.A.  | 62/578,026    | October 27,<br>2017 | "Near-grazing retroreflectors for TE and/or TM polarization" |

hereinafter referred to as the "Application";

AND WHEREAS, THE GOVERNING COUNCIL OF THE UNIVERSITY OF TORONTO, hereinafter referred to as the "Assignee", whose full post office address is **Banting Institute, 100 College Street, Suite 413, Toronto, Ontario M5G 1L5, Canada**, has acquired from the Assignors, the Assignors' entire right, title and interest in and to the invention, in all countries of the world, including the Assignors' rights to the Application, and all related applications and patents thereon, including any and all, international, national and regional phase applications based on the Application, and other counterpart applications in all countries, and any and all substitutes, divisionals, continuations and continuations-in-part, and any Letters Patent that may be obtained therefor, and in any and all reissues, extensions, renewals and reexaminations of such applications and patents, including the right to claim priority to the Application, and to all related applications and patents thereon filed by the Assignors or Assignee, including the benefit of any right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and the benefit of any right of priority provided by any convention

or treaty under domestic or foreign law, and to invoke and claim any such right of priority without further written or oral authorization from the Assignors;

NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Assignors confirm they have, as of **October 27, 2017** sold, assigned, transferred and set over, and for greater certainty, do hereby sell, assign, transfer and set over to the Assignee, its successors, assigns, or legal representatives, their entire right, title and interest for Canada, the United States and all other countries throughout the World in and to the Invention, together with their entire right, title and interest in and to the Applications and any and all Letters Patent that may issue for the Invention, including any and all divisions, reissues, continuations and extensions of the Applications, to the full end of the term for which each said Letters Patent may be granted, and including any right to claim priority based on the Applications, the same to be held and enjoyed as fully and completely as the same would have been held and enjoyed by the Assignors had this Assignment not been made;

The Assignors hereby confirm that the Application was made or was authorized to be made by themselves and that they believe themselves to be the original inventors or joint inventors of a claimed invention in the Application.

AND the Assignors, on behalf of themselves and their executors and administrators, do hereby covenant and agree to do all such lawful acts and things and to execute without further consideration such further lawful assignments, documents, assurances, applications and other instruments as may reasonably be required by the Assignee, its successors, assigns, or legal representatives, to obtain any and all Letters Patent for the Invention and vest the same in the Assignee, its successors, assigns, or legal representatives.

The Commissioner of Patents & Trademarks is hereby authorized and requested to issue any Letters Patent for the Application, and all related applications thereon, to the Assignee, for its sole use and benefit; and for the use and benefit of its successors and assigns, to the full end of the term for which Letters Patent may be granted, as fully and entirely as the same would have been held by the Assignors had this Assignment and sale not been made.

If a provision of this Assignment is or becomes illegal, invalid or unenforceable in any jurisdiction, that shall not affect the validity or enforceability in that jurisdiction of any other provision of this Assignment, or the validity or enforceability in other jurisdictions of that or any other provision of this Assignment.

The Assignors hereby acknowledge that any willful false statement made in this assignment/declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

For the purpose of all legal proceedings this Assignment will be deemed to have been performed in the Province of Ontario and will be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

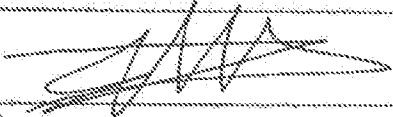
The Parties confirm their express wish that this Assignment be drawn up in the English language.  
*Les parties confirment leur volonté expresse que cette cession soit rédigée en langue anglaise.*

EXECUTED at Toronto (city), Canada (country).

Witness

George V. Eleftheriades  
Name

Konstantinos Samis  
Name

  
Signature

KUTAI's  
Signature

July 23 / 2018  
Date

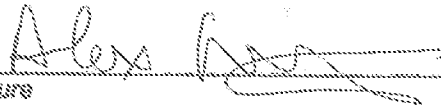
July 23, 2018  
Date

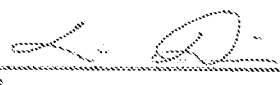
EXECUTED at Hong Kong (city), Hong Kong (country).

Witness

Alex M.H. Wong  
Name

Lin Dai  
Name

  
Signature

  
Signature

Jul 21<sup>st</sup> 2018  
Date

July 21, 2018  
Date

EXECUTED at North York (city), Canada (country).

Witness

Philip Christian

Name

Philip Christian  
Signature

July 20, 2018  
Date

Zafar Sayed  
Name

Zafar Sayed  
Signature

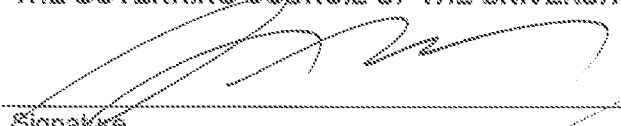
July 20, 2018  
Date

ACKNOWLEDGEMENT

The Assignee hereby accepts the assignment. EXECUTED at Toronto (city),  
CANADA (country).

This 23 day of July, 2018.

THE GOVERNING COUNCIL OF THE UNIVERSITY OF TORONTO

  
Signature

Stéphane Lévesque, Ph.D.  
Name Patents, Innovations & Partnerships Office

\_\_\_\_\_  
Title

The signatory is duly authorized by the Office of the Vice-President Research and Innovation of The Governing Council of the University of Toronto to sign the said document.

DECLARATION OF WITNESS

I, Lilia Smare, whose full post office address is  
210 - 3341 Bloor Street, Toronto, M2X 1G3 hereby  
declare that I was personally present and did see Stéphane Lévesque of  
THE GOVERNING COUNCIL OF THE UNIVERSITY OF TORONTO who is personally known to me to be  
the person named in the above assignment duly sign and execute the same.

Declared at Toronto (city), Canada (country).

This 23rd day of July, 2018.

L Smare  
Signature of Witness: