# 505583081 07/22/2019

# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
RYAN PHILLIP MARCHILDON	05/30/2019
AMR SAHER HELMY	06/03/2019

#### **RECEIVING PARTY DATA**

Name:	THE GOVERNING COUNCIL OF THE UNIVERSITY OF TORONTO
Street Address:	BANTING INSTITUTE, 100 COLLEGE STREET, SUITE 413
City:	TORONTO, ONTARIO
State/Country:	CANADA
Postal Code:	M5G 1L5

# **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15635132

#### **CORRESPONDENCE DATA**

**Fax Number:** (514)845-7874

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.

Phone: 514-987-6242 Email: marceau@robic.com

Correspondent Name: ROBIC LLP

Address Line 1: 630 RENE-LEVESQUE WEST, 20TH FLOOR Address Line 4: MONTREAL, QUEBEC, CANADA H3B 1S6

ATTORNEY DOCKET NUMBER:	017978-0030
NAME OF SUBMITTER:	SUZANNE MARCEAU
SIGNATURE:	/Suzanne Marceau/
DATE SIGNED:	07/22/2019

#### **Total Attachments: 5**

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PATENT REEL: 049821 FRAME: 0801

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#### ASSIGNMENT

WHEREAS.

Ryan Phillip Marchildon , whose full post office address is

4144 Powderhorn Crescent, Mississauga, Ontario, L5L 3B9, Canada and
Amr Saher Helmy , whose full post office address is

88 Broadway Avenue, Toronto, Ontario, M4P 0A5, Canada.

hereinafter referred to collectively as "the Assignors", are inventors of an invention relating to and entitled:

# QUANTUM PHOTONIC STATE ENGINEERING AND CHARACTERIZATION USING MULTI-INPUT MULTI-OUTPUT COUPLERS aka SYSTEM AND METHOD FOR DISPERSION-ENABLED QUANTUM STATE CONTROL OF PHOTONS

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.	62/354,906	June 27, 2016	SYSTEM AND METHOD FOR DISPERSION- ENABLED QUANTUM STATE CONTROL OF
CANADA	2,971,893	June 27, 2016	PHOTONS SYSTEM AND METHOD FOR DISPERSION-
VAIINUA	£,011,000	busic at , an iv	ENABLED QUANTUM STATE CONTROL OF
U.S.A.	15/635,132	June 27, 2017	PHOTONS SYSTEM AND METHOD FOR DISPERSION-
w.w		***************************************	ENABLED QUANTUM STATE CONTROL OF PHOTONS
U.S.A.	16/217,349	June 27, 2817	SYSTEM AND METHOD FOR DISPERSION- ENABLED QUANTUM STATE CONTROL OF PHOTONS

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

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PATENT REEL: 049821 FRAME: 0802 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 **June 22**, **2016** 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 P1880

PATENT REEL: 049821 FRAME: 0803 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 <u>Toronto</u>	(city), <u>Canade</u> (country).
Assignor	Witness
Ryan Phillip Marchildon	Lien Marchildha
Name Roman Hasalda	Name Liha
Ania Inclian	### ##################################
Date	Date

EXECUTED at TORGETTO	(city), (country).
Assignor	Witness
Amr Saher Helmy	Han Liu
Name /	Name
420	An Ri
Signature	Signature
Time 3rd 2019	19/3/19
Date	Date

# **ACKNOWLEDGEMENT**

The Assignee hereby accepts the assignment. EXEC	UTED at <u>Toronto</u> (city), <u>Canada</u> (country).
This 219 day of 50 AQ , 2019.	
THE GOVERNING COUNCIL OF THE UNIVERSITY OF TOR	отио
Signature  Stephane Levesque, Ph.D.  Patents, Innovations & Partnerships Office	The signatory is duly <b>suthorized</b> by <b>the Office</b> of the Vice-President Research and Innovation of the Governing Council of the University of Toronto
Name	to sign the said document.
Patent Postfolio Manager	
Title	
DECLARATION OF WITNE	<u>ss</u>
i, <u>Les へと ゆれめいうと</u> , whose full post of <u>333 Cs みあいんと Cred: MV%. 8ん</u> declare that I was personally present and did see <u>のどれん</u>	fice address is
333 Cambourne cres NVB. 02	<u> </u>
declare that I was personally present and did see <u>つば ねん</u> の	ne Leicesque of
THE GOVERNING COUNCIL OF THE UNIVERSITY OF TORG	ONTO who is persónally known to me to be
the person named in the above assignment duly sign and exec	ute the same.
Declared at <u>Toronto (city), Canada</u> (country).	
This 215 day of 500 , 2019.	
Annual de la companya del companya del companya de la companya de	
Signature of Winess:	

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**RECORDED: 07/22/2019** 

PATENT REEL: 049821 FRAME: 0806