504411638 06/13/2017

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYAR	NCE:	ASSIGNMENT		
CONVEYING PARTY D	ΑΤΑ			
		Name	Execution Date	
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City: State/Country: Postal Code:	CANAD M5S 1A	A		
State/Country: Postal Code: PROPERTY NUMBERS	CANAD M5S 1A	A		
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City: State/Country: Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Email: Correspondent Name:	CANAD M5S 1A Total: 1 ATA e sent to provided	A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Mail.	
City: State/Country: Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Email: Correspondent Name: Address Line 1: Address Line 4:	CANAD M5S 1A Total: 1 ATA	A 1 Number 13368747 <i>Number</i> 13368747 <i>the e-mail address first; if that is unsuccessi</i> <i>; if that is unsuccessful, it will be sent via US</i> equest@slwip.com SCHWEGMAN LUNDBERG & WOESSNER, P.A P.O. BOX 2938 MINNEAPOLIS, MINNESOTA 55402 3154.002US2	Mail.	
City: State/Country: Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Email: Correspondent Name: Address Line 1: Address Line 1: Address Line 4:	CANAD M5S 1A Total: 1 ATA	A 1 Number 13368747 <i>Number</i> 13368747 <i>the e-mail address first; if that is unsuccessi</i> <i>if that is unsuccessful, it will be sent via US</i> request@slwip.com SCHWEGMAN LUNDBERG & WOESSNER, P.A P.O. BOX 2938 MINNEAPOLIS, MINNESOTA 55402 3154.002US2 TAMERAE ROBINSON	Mail.	
City: State/Country: Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will bu using a fax number, if p Email: Correspondent Name: Address Line 1:	CANAD M5S 1A Total: 1 ATA	A 1 Number 13368747 <i>Number</i> 13368747 <i>the e-mail address first; if that is unsuccessi</i> <i>; if that is unsuccessful, it will be sent via US</i> equest@slwip.com SCHWEGMAN LUNDBERG & WOESSNER, P.A P.O. BOX 2938 MINNEAPOLIS, MINNESOTA 55402 3154.002US2	Mail.	

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RECORDATION FORM COVER SHEET PATENTS ONLY

Atty Ref/Docket No.: 3154.002US2

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To the Director of the U.S. Patent and Trademark Office: Plea	
 Name of conveying party(ies): Edward Sargent, Jason Clifford, Gerasimos Konstantatos, Ian Howard, Ethan Klem Additional name(s) of conveying party(ies) attached? []Yes [X]No Nature of conveyance: [X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other 	 Name and address of receiving party(ies): Name: University of Toronto Street Address: Simcoe Hall, Room 133S, 27 King's College Circle City: Toronto State: ON Zip: M5S 1A1 Country: Canada Additional name(s) & address(es) attached? []Yes [X]No
Execution Date: <u>September 23, 2005, September</u> 23, 2005, September 23, 2005, September 23, 2005, <u>September 23, 2005,</u>	
 4. Application number(s) or patent number(s): If this document is being filed together with a new application A. Patent Application No.(s) Serial No. 13/368,747 Additional numbers attached? []Yes [X]No 	n, the execution date of the application is: B. Patent No.(s)
 5. Name and address of party to whom correspondence concerning document should be mailed: Name: <u>Bradley W. Scheer</u> Address: Schwegman Lundberg & Woessner, P.A. P.O. Box 2938 Minneapolis, MN 554020938 	 6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 3.41):\$ 0.00 []Enclosed []Authorized to be charged to deposit account 19-0743 8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743
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9. Statement and signature. 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.

Bradlev W. Scheer/Reg. No. 47,059					June 13, 2017	
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PATENT REEL: 042697 FRAME: 0458



OFFICE OF THE VICE-PRESIDENT, RESEARCH AND ASSOCIATE PROVOST

ASSIGNMENT OF RIGHTS TO THE UNIVERSITY OF TORONTO BY THE INVENTOR

In consideration of the sum of two dollars (\$2.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Edward Sargent, Jason Clifford, and their heirs, executors, administrators and assigns (collectively the "Assignor") hereby sell, assign and transfer to The Governing Council of the University of Toronto, its successors and assigns (collectively the "Assignee") all right, title and interest which the Assignor now has or may hereafter have in an invention described as

Efficient, High-detectivity Photodetectors Based on a Combination of Differentlytreated Solution-processed Quantum Dots

in Appendix A annexed hereto, (the "Invention")

including, without limitation, the right to apply for patents in Canada, the United States of America and any other country, the right to receive any letters patent that may be issued from any such applications, the right to have any letters patent that have been granted transferred into the name of the Assignee, and the right to sell, license or assign the Invention or the rights thereto.

The Assignor hereby releases the Assignee from any and all manner of claims and demands which the Assignor may now have or may in future have in respect of the Invention or in connection with the patenting, sale or licensing thereof.

Executed at Toronto, Ontario this 25 day of September.

Witness

Inventors Edward Sargent Jason Clifford

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OFFICE OF THE VICE-PRESIDENT, RESEARCH AND ASSOCIATE PROVOS

Assignment of Rights to the University of Toronto by the Inventor

In consideration of the sum of two dollars [\$2.00] and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged. Edward Sargent, Jason Clifford, and their heirs, executors, administrature and assigns (collectively the "Assignor") hereby sell, assign and transfer to The Governing Council of the University of Toronto, its successors and assigns (collectively the "Assignee") all right, title and interest which the Assignor now has or may hereafter have in an invention described as

Efficient, High-detectivity Photodetectors Based on a Combination of Two Types of Solution-processed Quantum Dots, Each Composed of a Distinct Semiconductor Material

in Appendix A annexed hereto, (the "Invention")

including, without limitation, the right to apply for patents in Canada, the United States of America and any other country, the right to receive any letters patent that may be issued from any such applications, the right to have any letters patent that have been granted transferred into the name of the Assignee, and the right to sell, license or assign the Invention or the rights thereto.

The Assignor hereby releases the Assignee from any and all manner of claims and demands which the Assignor may now have or may in future have in respect of the Invention or in connection with the patenting, sale or licensing thereof.

Executed at Toronto, Ontario this 234 day of	FERCENASI, 2005
Witness	Inventors/
	In totk
	Jason Clifford

Edward Sargent

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OFFICE OF THE VICE PRESIDENT, RESEARCH AND ASSOCIATE PROVOST

ASSIGNMENT OF RIGHTS TO THE UNIVERSITY OF TORONTO BY THE INVENTOR

In consideration of the sum of two dollars (\$2.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged. Edward Sargent, Jason Clifford, and their heirs, executors, administrators and assigns (collectively the "Assignor") hereby sell, assign and transfer to The Governing Council of the University of Toronto, its successors and assigns (collectively the "Assignee") all right, title and interest which the Assigner now has or may hereafter have in an invention described as

A Method of Sensitizing an Electronic Read-out Integrated Circuit into the Infrared Spectral Range Using Spin-coated Quantum Dot Nanocrystals

in Appendix A aniexed hereto, [the 'invention'] including, without limitation, the right to apply for patents in Canada, the United States of America and any other country, the right to receive any letters patent that may be issued from any such applications, the right to have any letters patent that have been granted transferred into the name of the Assignee, and the right to sell, license or

The Assignor hereby releases the Assignee from any and all manner of claims and demands which the Assignor may now have or may in future have in respect of the Invention or in connection with the patenting, sale or licensing thereof.

Executed at Toronto, Ontario this 23 day of 597848, 2005.

assign the Invention or the rights thereto.

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OFFICE OF THE VICE-PRESIDENT, RESEARCH AND ASSOCIATE PROVOST

ASSIGNMENT OF RIGHTS TO THE UNIVERSITY OF TORONTO BY THE INVENTOR

In consideration of the sum of two dollars (\$2.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Edward Sargent, Gerasimos Konstantatos, Ian Howard, Ethan Klem, and their heirs, executors, administrators and assigns (collectively the "Assignor") hereby sell, assign and transfer to The Governing Council of the University of Toronto, its successors and assigns (collectively the "Assigner") hereby sell, assign assigns (collectively the "Assignee") all right, title and interest which the Assignor now has or may hereafter have in an invention described as

Efficient, High-detectivity Photodetectors Based on Solution-processed Quantum Dots with Subsequent Solution-phase and Vapour-phase Thermal Processing

in Appendix A annexed hereto, (the "Invention")

including, without limitation, the right to apply for patents in Canada, the United States of America and any other country, the right to receive any letters patent that may be issued from any such applications, the right to have any letters patent that have been granted transferred into the name of the Assignee, and the right to sell, license or assign the Invention or the rights thereto.

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Executed at Toronto, Ontario this 23" de	y of <u>SEPTCMSER</u> , Jaus
Witness	Inventors
	Edward Sargent
	Gerasimos Konstantatos
	- fren strangt
	lan Howard
	Ethan Klem

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