

## PATENT ASSIGNMENT COVER SHEET

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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>
EDWARD SACHET	07/19/2016
JON-PAUL MARIA	07/19/2016
CHRISTOPHER SHELTON	07/19/2016
<b>RECEIVING PARTY DATA</b>	
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<b>City:</b>	RALEIGH
<b>State/Country:</b>	NORTH CAROLINA
<b>Postal Code:</b>	27606
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15644216
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<b>ATTORNEY DOCKET NUMBER:</b>	030871-9058-US01
<b>NAME OF SUBMITTER:</b>	SHELDON L. WOLFE
<b>SIGNATURE:</b>	/sheldon l. wolfe/
<b>DATE SIGNED:</b>	07/07/2017
<b>Total Attachments: 2</b>	
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## ASSIGNMENT

Pursuant to our obligation to North Carolina State University (hereinafter referred to as "Assignee"), an educational institution chartered and existing under the laws of the state of North Carolina having its principal place of business at:

1021 Main Campus Drive, 2nd Floor  
Raleigh, NC 27606

and for other valuable and sufficient consideration, receipt whereof is hereby acknowledged, we:

Edward Sachet  
North Carolina State University  
1021 Main Campus Drive, 2nd Floor  
Raleigh, NC 27606

Jon-Paul Marja  
North Carolina State University  
1021 Main Campus Drive, 2nd Floor  
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Christopher Shelton  
North Carolina State University  
1021 Main Campus Drive, 2nd Floor  
Raleigh, NC 27606

confirm our obligation to and hereby sell, assign and convey, unto Assignee, its successors and assigns, our entire right, title and interest -

(1) in and to inventions described in a patent application titled "POLARITONIC HOT ELECTRON INFRARED PHOTODETECTOR" for which we filed United States Provisional Patent Application No. 62/360,073 on July 8, 2016 (Atty. File No. 030871-9058-US00);

(2) in and to the U.S. provisional patent application, in and to all other patent applications (including divisional, continuation, continuation-in-part, and reissue applications) based upon said inventions, and in and to the patent or patents to be granted thereon, to the full end of the term or terms for which said patent or patents may be granted;

(3) in and to all patent applications on said invention now or hereafter filed in countries foreign to the United States of America, and in and to any and all patents granted on said applications to the full end of the terms for which said patents may be granted; and

(4) under the International Convention in respect to the U.S. provisional patent application and agree that any patent applications of any foreign countries which may be filed

shall be filed in the name of our Assignee with a claim to priority based on the U.S. provisional patent application.

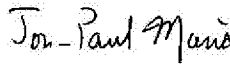
We hereby agree that we will, upon demand of Assignee, its successors or assigns, and without further consideration to us, execute any and all papers that may be necessary, or deemed by Assignee, its successors or assigns, to be necessary, to a complete fulfillment of the intent and purposes of this Assignment, it being understood that any expense incident to the execution of such papers shall be paid by Assignee, its successors and assigns, and not by us.

The Commissioner of Patents and Trademarks of the United States is hereby authorized and requested to issue said patent or patents to Assignee.

07/19/2016  
Date

  
Edward Sachet

7/19/2016  
Date

  
Jon-Paul Maria

7/19/2016  
Date

  
Christopher Shelton