# 503239261 03/27/2015 PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT		
CONVEYING PARTY	DATA			
		Name	Execution Date	
ZHIWEN LIU			03/06/2015	
PERRY EDWARDS			03/06/2015	
COREY JANISCH			03/06/2015	
RECEIVING PARTY D	ΟΑΤΑ			
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Application Number:	14	1431080		
PROPERTY NUMBEF Property Typ		Number		
Application Number:	14	1431080		
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SIGNATURE:		/Duane A. Stewart III/	/Duane A. Stewart III/	
DATE SIGNED:		03/27/2015	03/27/2015	
Total Attachments: 2				
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### ASSIGNMENT

WHEREAS, we, Zhiwen Liu, residing at 2075 Country Glenn Lane, State College, PA 16801; Perry Edwards, residing at 1485 N. Allen Street, State College, PA 16803; and Corey Janisch, residing at 206A Garban Hall, White Course, University Park, Pennsylvania 16802, respectively, have invented certain new and useful apparatus, methods, inventions, discoveries and/or improvements disclosed in U.S Patent Application Serial No. <u>14/431,080</u>, filed <u>3/25/2015</u> entitled "RESONATOR ENHANCED RAMAN SPECTROSCOPY", said application being the national phase of PCT International Patent Application Serial No. PCT/US2013/061769 filed September 25, 2013 and to United States Provisional Patent Application Serial No. 61/705,405, filed in the United States Patent and Trademark Office on September 25, 2012.

AND WHEREAS, The Penn State Research Foundation, The Pennsylvania State University, 304 Old Main, University Park, Pennsylvania 16802-1504 (hereinafter the "Assignee"), are desirous of acquiring the entire right, title and interest in and to said application(s) and the apparatus, inventions, discoveries, methods, and improvements therein disclosed;

NOW THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration paid to us by said Assignee, receipt whereof we hereby acknowledge, we do hereby assign, sell, transfer, and set over unto said Assignee the entire right, title, and interest in and to said application(s) and the apparatus, inventions, discoveries and improvements therein disclosed for the United States of America and its territories and all foreign countries and any Letters Patent which may issue therefor in the United States and its territories and all foreign countries and all divisions, reissues, continuations, continuations-in-part, renewals, and/or extensions thereof, including the right to apply for Letters Patents in each foreign country and the United States of America and its territories, in its own name and to claim any and all priority rights under the International Convention, other conventions, treaties, or otherwise associated therewith for each country and the United States of America and its territories, said Assignee to have and to hold the interests herein assigned to the full ends of the terms of said Letters Patent and any and all divisions, reissues, continuations, continuations-in-part, renewals, and/or extensions thereof, respectively, as fully and entirely as the same would have been held and enjoyed by us had this Assignment not been made.

The Commissioner of Patents and Trademarks is requested to issue such Letters Patent in accordance herewith. We covenant that we are the lawful owners of the said application(s), apparatus, inventions, discoveries and improvements, that the same are unencumbered, that no license has been granted to make, use, or vend the said apparatus, inventions, discoveries or improvements or any of them, and that we have the full right to make this Assignment.

And for said consideration, we agree individually that we will communicate to said Assignee or the representatives thereof any facts known to me respecting said apparatus, inventions, discoveries and improvements, and will, upon request, but without expense to me,

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#### Attorney Ref. No. 0073605-000210

testify in any legal proceedings, sign all lawful papers, execute all divisional, reissue, continuation, continuation-in-part, renewal, and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts, deemed necessary or expedient by said Assignee or by counsel for said Assignee, to assist or enable said Assignee to obtain and enforce full benefits from the rights and interests herein assigned, and, in the event of any application or Letters Patent assigned herein becoming involved in Interference, to cooperate to the best of the ability of the undersigned in the matters of preparing and executing the preliminary statement and giving and producing evidence in support thereof. This Assignment shall be binding upon our heirs, executors, administrators, and/or assigns, and shall inure to the benefit of the heirs, executors, administrators, successors, and/or assigns, as the case may be, of said Assignee.

And for said consideration, the undersigned hereby agrees to execute, at the request of said Assignee, all documents in connection with any application for foreign letters patent therefor.

Executed: 3/6/15

Zhiwen Liu

Executed: 3/6/15

Executed:  $\frac{3/6/15}{5}$ 

Perry Edwards

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**RECORDED: 03/27/2015**