503990243 09/02/2016

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
FANXING LI	10/05/2015
YANGUANG CHEN	10/23/2015

RECEIVING PARTY DATA

Name:	NORTH CAROLINA STATE UNIVERSITY	
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City:	RALEIGH	
State/Country:	nte/Country: NORTH CAROLINA	
Postal Code: 27606		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15109894

CORRESPONDENCE DATA

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CHRISTOPHER B. LINDER **Correspondent Name:**

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ATTORNEY DOCKET NUMBER:	221404-1070
NAME OF SUBMITTER:	CHRISTOPHER B. LINDER
SIGNATURE:	/CBL/
DATE SIGNED:	09/02/2016

Total Attachments: 4

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> **PATENT** REEL: 039623 FRAME: 0610 503990243

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PATENT REEL: 039623 FRAME: 0611

ASSIGNMENT

WHEREAS, we, Fanxing Li, City of Raleigh, State of North Carolina, and Yanguang Chen, City of _________, Country of China (heremafter "Assignor"), has invented certain new and useful empreciates in Mixed-Conductor Enhanced Composite and Core-Shell Oxides For Cyclic Redox Production of Fuels and Chemicals, for which a PCT Application No. PCT/US15/10280, filed January 6, 2015, claiming the benefit of U. S. Provisional Application Serial No. 61/923.939, filed January 6, 2014.

AND, WHEREAS, North Carolina State University, a non-profit public educational institution under the laws of the State of North Carolina, with an office located at 1021 Main Campus Drive, 2nd Floor, Raleigh, North Carolina 27606, United States of America, (hereinafter "Assignee"), is desirous of acquiring an interest therein.

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged. Assignor has assigned and by these presents does hereby sell, assign, transfer, and convey outo the Assignee, its successors and assigns, his entire right, title, and interest in and to the invention and application, including the right to see for past infringements and any other prior occurring rights, provided any such rights exist, and in and to any and all domestic and foreign potent applications filed on the invention, and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America, and all forcign countries or reissues thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted, together with his right to claim the priority of said application in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said Assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made. Assignor further assigns to Assignee the right to claim entitlement and/or priority to any applications that entitlement or priority may be claimed for this or any later filed application. The assignment of the right to claim entitlement and/or priority is executed nane pro tane and is considered effective as of the filing date of the earliest application to which priority and/or entitlement is claimed.

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Atty, Docket No.: 127/39 PCT NCSU Ref. No. 14-088

Assignor hereby requests that said Letters Patent be issued in accordance with this assignment.

Assignor further covenants and agrees that, at the time of the execution and delivery of these presents, Assignor possesses full title to the invention and application above-mentioned, and that he has the unencumbered right and authority to make this assignment.

Assignor further covenants and agrees, and likewise binds his heirs, legal representatives and assigns, to promptly communicate to said Assignee or its representatives any facts known to him relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the Assignee, its representatives, successors and assigns to secure patent or similar protection for the said invention in all countries and to vest in the Assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said Assignee, its successors, assigns and other legal representatives.

<< Signature Page Follows >>

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Atty. Docket No.: 127/39 PCT NCSU Ref. No. 14-088

I	executed this day of	<u>October</u> , 2015.
	s.	Fanxing Li
State of	North Carole	· <u>* </u>
County o	or <u>Date</u>	
C	m <u>10:5-2015</u> ,1	pefore me, <u>LUIFa</u> (k,
	(date)	(notary)

personally appeared, <u>Fanxing Li</u>, personally known to me or proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

Notary Public (notary signature)

Any, Docket No.: 127/39 FCT NCSU Ref. No. 14-088

Executed this 2 day of <u>October</u> 2015.

Yanguang Ohen
Yanguang Ohen

Date 2015, 10, 23

Med Zhong Witness Date Soft . (0 2)

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