505073948 08/31/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
RALPH E. DEWEY	02/25/2011
RAMSEY S. LEWIS	02/25/2011

RECEIVING PARTY DATA

Name:	NORTH CAROLINA STATE UNIVERSITY	
Street Address:	CAMPUS BOX 8210	
City:	RALEIGH	
State/Country:	NORTH CAROLINA	
Postal Code:	27695	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14980523

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	035051/473492
NAME OF SUBMITTER:	JASON A. KEITH
SIGNATURE:	/jason a. keith/
DATE SIGNED:	08/31/2018

Total Attachments: 4

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PATENT 505073948 REEL: 046766 FRAME: 0610

ASSIGNMENT

THIS ASSIGNMENT, effective by 15 January 2010 (15.01.2010), made by us, Ralph E. DEWEY and Ramsey S. LEWIS, citizens of the United States of America and residing at 2403 Colony Woods Drive, Apex, North Carolina 27523, US and 8640 Glade Hill Drive, Apex, North Carolina 27539, US, respectively;

WITNESSETH: That,

WHEREAS, we are the inventors of certain new and useful improvements in COMPOSITIONS AND METHODS FOR MINIMIZING NORNICOTINE SYNTHESIS IN TOBACCO, for which an international application under the Patent Cooperation Treaty (PCT) has been filed in the Receiving Office of the United States Patent and Trademark Office on 13 January 2011 (13.01.2011) under International Application No. PCT/US2011/021088, and which claims priority of U.S. Provisional Application No. 61/295,671, filed 15 January 2010 (15.01.2010). Both the international application and the U.S. application will hereinafter be referred to as the subject applications.

WHEREAS, NORTH CAROLINA STATE UNIVERSITY, having a principal office at Campus Box 8210, Raleigh, North Carolina 27695, US, hereinafter referred to as assignee, is desirous of acquiring the entire right, title, and interest in and to said invention as described in the subject applications, and in and to any and all Letters Patent which shall be granted therefore in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold and by these presents do hereby sell, assign, transfer and convey unto the said assignee, its successors and assigns, the entire right, title, and interest in and to the said invention and the subject applications, 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 foreign countries or reissues or extensions thereof which may be granted therefore or thereon, for the full end of the term for which said Letters Patent may be granted, together with the right to claim the priority of the subject applications in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said assignee, its

PATENT REEL: 049300 FRAME: 0641 successors and assigns, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not be made.

We hereby request that said Letters Patent be issued in accordance with this assignment.

We further covenant and agree that, at the time of the execution and delivery of these presents, we possess full title to the invention and the subject applications above-mentioned, and that we have the unencumbered right and authority to make this assignment.

We further covenant and agree to bind our heirs, legal representatives and assigns, promptly to communicate to said assignee or its representatives any facts known to us 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 or 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.

IN WITNESS WHEREOF, we have hereunto set our hands and seals to this assignment on the dates indicated below.

DATE 62/25-/11	Ralph E. Dry Ralph E. DEWEY
STATE OF <u>NC</u> COUNTY OF <u>Wake</u> I, <u>Jeffrey</u> MBisseffe , a))) Notary Public for said County and State, do
hereby certify that Ralph E. DEWEY per acknowledged the due execution of the formal witness my hand and official seal, this the	sonally appeared before me this day and oregoing instrument.
Witness my hand and official seal, this the (Official Seal)	day of February, 2011.
My commission expires: <u>March</u> 12,2	Notary Public M. Block
	NOTARY PUBLIC
	MAKE COUNTY. *

DATE 2/25/11	Ros. Lo
	Ramsey S. LEWIS
	•
STATE OF NC	_)
COUNTY OF Wake	_)
I, Je ftrey M Bissette, a Not hereby certify that Ramsey S. LEWIS person acknowledged the due execution of the forest	nally appeared before me this day and going instrument.
Witness my hand and official seal, this the _	25th day of February, 2011.
(Official Seal)	Jeffrey Worth
	Notary Public
My commission expires: March 12	2,2013 AM. BISSETTE
	WOTARY WOTARY
	WAKE COUNTY

Attorney Docket No. 35051/400712

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