

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3508878

<b>SUBMISSION TYPE:</b>	CORRECTIVE ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	Corrective Assignment to correct the RECEIVING PARTY DATA/ASSIGNEE previously recorded on Reel 031417 Frame 0540. Assignor(s) hereby confirms the ORIGINAL ASSIGNMENT HAD AN INCORRECT VERSION OF THE ASSIGNOR NAME, NAMELY: "THE UNIVERSITY OF NORTH CAROLINA OF CHAPEL HILL".
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
J. MICHAEL RAMSEY	04/15/2013
KEVIN SCHULTZE	04/15/2013
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
<b>Street Address:</b>	100 EUROPA DRIVE
<b>Internal Address:</b>	SUITE430
<b>City:</b>	CHAPEL HILL
<b>State/Country:</b>	NORTH CAROLINA
<b>Postal Code:</b>	27517
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	13840653
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(919)854-1401
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Email:</b>	crose@myersbigel.com
<b>Correspondent Name:</b>	MYERS BIGEL SIBLEY & SAJOVEC, P.A.
<b>Address Line 1:</b>	4140 PARKLAKE AVE
<b>Address Line 2:</b>	SUITE 600
<b>Address Line 4:</b>	RALEIGH, NORTH CAROLINA 27612
<b>ATTORNEY DOCKET NUMBER:</b>	5470-751
<b>NAME OF SUBMITTER:</b>	JULIE H. RICHARDSON
<b>SIGNATURE:</b>	/Julie H. Richardson/
<b>DATE SIGNED:</b>	09/01/2015
<b>Total Attachments: 5</b>	
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**PATENT**

**REEL: 036526 FRAME: 0109**

**ASSIGNMENT - WORLDWIDE**

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor (hereinafter referred to singly and collectively as "ASSIGNOR") has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto

*at JMR 8/31/15*  
The University of North Carolina of Chapel Hill  
308 Cynum Hall  
CB 4105  
Chapel Hill, NC 27599-4105

(hereinafter referred to as "ASSIGNEE") its successors and assigns, the full and exclusive right, title and interest for the United States, its territories and possessions, and all foreign countries in and to this invention relating to

**STRETCHED LENGHT ION TRAP GEOMETRY**

as set forth in this United States Patent Application


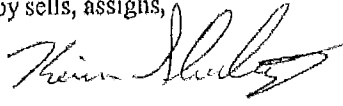
check one    ☐ executed concurrently herewith,  
                  ☐ executed on \_\_\_\_\_  
                  ☒ Serial No. 13/840,653      Filed March 15, 2013

as well as in and to (a) all improvements and modifications of the above-identified invention or inventions, (b) the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto for above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States and countries foreign thereto, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the Patent Cooperation Treaty, the Paris Convention and any other International agreement; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES ASSIGNEE to file patent applications in any or all countries on the above-identified invention or inventions in the name of the undersigned or in the name of ASSIGNEE or otherwise as ASSIGNEE may deem advisable under the International Convention or otherwise.

ASSIGNMENT - WORLDWIDE

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The University of North Carolina  Chapel Hill  
308 Cynum Hall  
CB 4105  
Chapel Hill, NC 27599-4105

08-31-2015

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STRETCHED LENGHT ION TRAP GEOMETRY

as set forth in this United States Patent Application

check one    ☐ executed concurrently herewith,  
                  ☐ executed on \_\_\_\_\_  
                  ☒ Serial No. 13/840,653      Filed March 15, 2013

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ASSIGNOR HEREBY AUTHORIZES ASSIGNEE to file patent applications in any or all countries on the above-identified invention or inventions in the name of the undersigned or in the name of ASSIGNEE or otherwise as ASSIGNEE may deem advisable under the International Convention or otherwise.

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representative or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, and declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of **Foley & Lardner LLP** the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of **Foley & Lardner LLP** do not personally represent ASSIGNOR OR ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

Executed this 15<sup>th</sup> day of April, 2013.

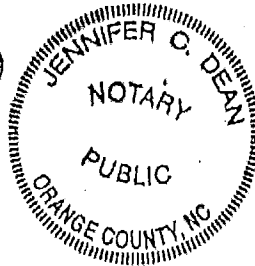
J. Michael Ramsey  
J. MICHAEL RAMSEY

State of North Carolina  
County of Orange

On this 15<sup>th</sup> day of April, 2013, before me, Jennifer C. Dean (a notary public in and for said county), personally appeared J. MICHAEL RAMSEY, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature Jennifer C. Dean  
My Commission Expires: May 16, 2017



(Seal)

Executed this 15<sup>th</sup> day of April, 2013.

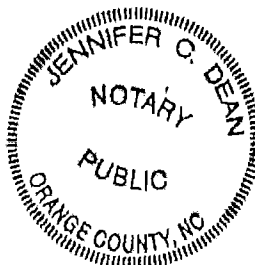
Kevin A. Schultze  
KEVIN SCHULTZE

State of North Carolina  
County of Orange

On this 15<sup>th</sup> day of April, 2013, before me, Jennifer C. Dean (a notary public in and for said county), personally appeared KEVIN SCHULTZE, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature Jennifer C. Dean  
My Commission Expires: May 16, 2017



(Seal)

**PATENT ASSIGNMENT COVER SHEET**

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT2580009

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
J. MICHAEL RAMSEY	04/15/2013
KEVIN SCHULTZE	04/15/2013

RECEIVING PARTY DATA

Name:	THE UNIVERSITY OF NORTH CAROLINA <sup>--AT--</sup> OF CHAPEL HILL
Street Address:	308 CYNUM HALL
Internal Address:	CB 4105
City:	CHAPEL HILL
State/Country:	NORTH CAROLINA
Postal Code:	27599

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13840653

CORRESPONDENCE DATA

Fax Number: (617)342-4001  
 Email: jrobins@foley.com, IPDocketing@foley.com  
*Correspondence will be sent via US Mail when the email attempt is unsuccessful.*  
 Correspondent Name: EDWARD A. GORDON  
 Address Line 1: 111 HUNTINGTON AVENUE  
 Address Line 2: FOLEY & LARDNER LLP  
 Address Line 4: BOSTON, MASSACHUSETTS 02199

ATTORNEY DOCKET NUMBER:	104409-0103
NAME OF SUBMITTER:	EDWARD A. GORDON
Signature:	/Edward A. Gordon/
Date:	10/16/2013

Total Attachments: 3

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**PATENT**

**RECORDED: 09/01/2015**

**REEL: 036526 FRAME: 0114**