

## 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>
MALEK HAJ TAHAR	08/28/2018
GERHARD RANDERS-PEHRSON	08/30/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK
<b>Street Address:</b>	412 LOW MEMORIAL LIBRARY
<b>Internal Address:</b>	535 WEST 116TH STREET
<b>City:</b>	NEW YORK
<b>State/Country:</b>	NEW YORK
<b>Postal Code:</b>	10027
<b>PROPERTY NUMBERS Total: 2</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16122190
<b>Application Number:</b>	62554275
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(703)563-6242
<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>Phone:</b>	703-831-4094
<b>Email:</b>	manassas@bwsmiplaw.com
<b>Correspondent Name:</b>	EUGENE J. MOLINELLI
<b>Address Line 1:</b>	P.O. BOX 231
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<b>ATTORNEY DOCKET NUMBER:</b>	15003-383US0/US1
<b>NAME OF SUBMITTER:</b>	EUGENE J. MOLINELLI
<b>SIGNATURE:</b>	/Eugene J. Molinelli, 42901/
<b>DATE SIGNED:</b>	09/25/2018
<b>Total Attachments: 4</b>	
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**ASSIGNMENT OF PATENT APPLICATION**

FOR GOOD AND VALUABLE CONSIDERATION, receipt of which is hereby expressly acknowledged, we, the undersigned (each) have agreed and hereby agree to assign, and do hereby sell, assign and transfer unto

**The Trustees of Columbia University in the City of New York**

having its principal place of business at 412 Low Memorial Library, 535 West 116th Street, New York, NY 10027, organized under the laws of the state of New York as Assignee, and its successors, assigns and legal representatives, the entire right, title and interest, for all countries in and to certain inventions relating to

**Fixed field alternating gradient ion accelerator for variable energy extraction**

described in an application for Letters Patent of the United States, identified as Attorney Docket No. 15003-383US0, at Beusse Wolter Sanks & Maire PLLC, P.O. Box 231, Manassas, Virginia 20108, and filed on 9/5/2017 as Application Serial No. 62/554,275; and nonprovisional application identified as 15003-383US1 and filed on 9/5/2018, as Application No. 16/122,190, and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part, divisionals, international applications, and renewals of and substitutes for said application for said Letters Patent, and all the rights and privileges under any and all Letters Patent that may be granted therefor in any country, and any reissues, or reexaminations, or extensions of said Letters Patent. We request that any and all Letters Patent for said inventions be issued to said Assignee, its successors, assigns and legal representatives, or to such nominees as it may designate.

We agree that, when requested, we will, without charge to said Assignee but at its expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient for securing and maintaining patents for said inventions in any and all countries and for vesting title thereto in said Assignee, its successors, assigns and legal representatives or nominees.

We authorize and empower the said Assignee, its successors, assigns and legal representatives or nominees, to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from us.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of the said Assignee or nominee to claim the aforesaid benefit of the right of priority provided by the International convention which may henceforth be substituted for it.

We hereby authorize attorneys at Customer Number 31856, as attorneys for Assignee, to insert the filing date and serial number into the first paragraph of this assignment, after the application for Letters Patent has been filed and the U.S. Patent Office has assigned such application a serial number.

We covenant with said Assignee, its successors, assigns and legal representatives, that the rights and property herein conveyed are free and clear of any encumbrance, and that we have full right to convey the same as herein expressed.

**ASSIGNMENT OF PATENT APPLICATION**

IN WITNESS WHEREOF, we have hereunto signed our names on the day and year set forth below.

\_\_\_\_\_  
Inventor's Signature

\_\_\_\_\_  
DATE

Malek Haj Tabar  
\_\_\_\_\_  
Inventor's Printed Name

\_\_\_\_\_  
Witness Signature

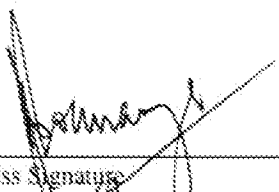
\_\_\_\_\_  
DATE

\_\_\_\_\_  
Witness Printed Name

  
\_\_\_\_\_  
Inventor's Signature

Aug 30, 2018  
\_\_\_\_\_  
DATE

Gerhard Randers-Pehrson  
\_\_\_\_\_  
Inventor's Printed Name

  
\_\_\_\_\_  
Witness Signature

8/30/2018  
\_\_\_\_\_  
DATE

BRIAN NISHIDA  
\_\_\_\_\_  
Witness Printed Name

ASSIGNMENT OF PATENT APPLICATION

IN WITNESS WHEREOF, we have hereunto signed our names on the day and year set forth below.

  
Inventor's Signature

08/28/2018  
DATE

Malek Haj Tahar  
Inventor's Printed Name

  
Witness Signature

08/28/2018  
DATE

Jim Ogren  
Witness Printed Name

\_\_\_\_\_  
Inventor's Signature

\_\_\_\_\_  
DATE

Gerhard Randers-Pehrson  
Inventor's Printed Name

\_\_\_\_\_  
Witness Signature

\_\_\_\_\_  
DATE

\_\_\_\_\_  
Witness Printed Name

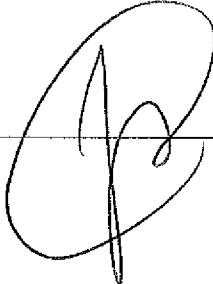
**ACCEPTANCE BY ASSIGNEE**

In connection with an assignment in any jurisdiction in which an acceptance by ASSIGNEE is required, I hereby accept this assignment on behalf of The Trustees of Columbia University in the City of New York. I declare under penalty of perjury under the laws of the United States of America, and under penalty of the laws of any other jurisdiction before which this document may be presented, that (check all that apply):

- I am an officer of the above-identified ASSIGNEE,
- I have signed this document on behalf of ASSIGNEE with the full authority of the ASSIGNEE.

and that all the forgoing is true and correct.

Dated: 09/21/18

By: 

Name:

Title:

**Jeffrey M. Sears, Ph.D.**  
Associate General Counsel  
Columbia University