

## 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>
AMIT LAL	11/21/2016
THOMAS SCHENKEL	05/05/2016
ARUN PERSAUD	05/04/2016
QING JI	05/04/2016
PETER SEIDL	05/04/2016
WILL WALDRON	05/04/2016
SERHAN ARDANUC	01/23/2017
VINAYA KUMAR KADAYRA BASAVARAJAPPA	05/04/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	CORNELL UNIVERSITY
<b>Street Address:</b>	395 PINE TREE ROAD, SUITE 310
<b>City:</b>	ITHACA
<b>State/Country:</b>	NEW YORK
<b>Postal Code:</b>	14850
<b>Name:</b>	LAWRENCE BERKELEY NATIONAL LABORATORY
<b>Street Address:</b>	1 CYCLOTRON ROAD
<b>City:</b>	BERKELEY
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94720
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16538563
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<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>	patentprocurement@perkinscoie.com
<b>Correspondent Name:</b>	VINAY SATHE
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<b>PATENT</b>	

<b>ATTORNEY DOCKET NUMBER:</b>	078554-8099.US02
<b>NAME OF SUBMITTER:</b>	ANITA CHOU
<b>SIGNATURE:</b>	/AnitaChou/
<b>DATE SIGNED:</b>	06/08/2020

**Total Attachments: 9**

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**Cornell University and Lawrence Berkeley National Laboratory  
ASSIGNMENT**

WHEREAS, We, **Amit Lal**, an United States citizen, residing at 610 The Parkway, Ithaca, NY 14850, **Thomas Schenkel**, an United States citizen, residing at 469 Hill Street, San Francisco, CA 94114, **Arun Persaud**, a German citizen, residing at 642 Norell Street, El Cerrito, CA 94530, **Qing Ji**, a citizen of the Peoples Republic of China, residing at 553 Pierce Street #743, Albany, CA 94709, **Peter Seidl**, an United States Citizen, residing at 7027 Shirley Drive, Oakland, CA 94611, **Will Waldron**, an United States Citizen, residing at 1342 Grizzly Peak Boulevard, Berkeley, CA 94708, **Serhan Ardanuc**, an United States citizen, residing at 1504 Hasbrouck Apartments, Ithaca, NY 14850 and **Vinaya Kumar Kadayra Basavarajappa**, an Indian citizen, residing at 323 Cascadilla Street, Ithaca, NY 14850 have invented certain new and useful improvements in **PARTICLE ACCELERATOR APPARATUS, METHODS, AND APPLICATIONS** for which an application for Letters Patent in the United States is filed herewith;

AND WHEREAS, **Cornell University**, with its principal place of business at the **Center for Technology Licensing ("CTL") at Cornell University, 395 Pine Tree Road, Suite 310, Ithaca, New York 14850 USA** and **Lawrence Berkeley National Laboratory**, with its principal place of business at **1 Cyclotron Road, Berkeley, California 94720 USA**, are entitled to acquire the entire right, title and interest in and to the said improvements and the said Application:

NOW, THEREFORE, for good and valuable consideration, including salary or payment for the making of inventions, or employee benefits, the receipt of which is hereby acknowledged, we, the said inventors, do hereby acknowledge that we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said **Cornell University and Lawrence Berkeley National Laboratory**, its successors, legal representatives and assigns, the entire right, title and interest throughout the world in, to and under the said improvements, and the said application and all divisions, renewals, and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and we hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to the said **Cornell University and Lawrence Berkeley National Laboratory**, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we will communicate to the said **Cornell University and Lawrence Berkeley National Laboratory**, its successors, legal representatives, and assigns, any facts known to us respecting said improvements and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, and reissue applications, make all rightful oaths and generally do everything possible to aid the said **Cornell University and Lawrence Berkeley National Laboratory**, its successors, legal representatives, and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

Witness Signature Option

*Amit Lal*  
Amit Lal

11/21/2016  
Date

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

\_\_\_\_\_  
Date

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

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

\_\_\_\_\_  
Date

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

Notary Option

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_\_ day  
of \_\_\_\_\_, 20\_\_\_\_\_

\_\_\_\_\_  
Amit Lal

STATE OF \_\_\_\_\_ )

COUNTY OF \_\_\_\_\_ )

This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me personally came the  
above-named Amit Lal, to me personally known as the individual who executed the same of  
his/her own free will for the purposes therein set forth.

\_\_\_\_\_  
Notary Public

Commission expires on \_\_\_\_\_

Witness Signature Option

Th. Schenkel  
Thomas Schenkel

May 05, 2016  
Date

R. Gindowit  
First Witness Signature

May 05, 2016  
Date

Bernhard Ludewigt  
First Witness Printed Name

[Signature]  
Second Witness Signature

May 5, 2016  
Date

RUSSELL E. LAKE  
Second Witness Printed Name

Notary Option

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 05 day  
of May 2016, 2016

[Signature]  
Thomas Schenkel

STATE OF CA )  
COUNTY OF \_\_\_\_\_ )

This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me personally came the  
above-named Thomas Schenkel, to me personally known as the individual who executed the  
same of his/her own free will for the purposes therein set forth.

\_\_\_\_\_  
Notary Public

Commission expires on \_\_\_\_\_.

**Witness Signature Option**

A. Persaud 2016-5-4  
Arun Persaud Date

[Signature] 5/4/2016  
First Witness Signature Date

Qing Ji  
First Witness Printed Name

[Signature] May 04 / 2016  
Second Witness Signature Date

Thomas Schenkkel  
Second Witness Printed Name

**Notary Option**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day  
of \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
Arun Persaud

STATE OF \_\_\_\_\_ )

COUNTY OF \_\_\_\_\_ )

This \_\_\_\_ day of \_\_\_\_\_, 20\_\_, before me personally came the  
above-named Arun Persaud, to me personally known as the individual who executed the  
same of his/her own free will for the purposes therein set forth.

\_\_\_\_\_  
Notary Public

Commission expires on \_\_\_\_\_.

Witness Signature Option

*Qing Ji*  
Qing Ji

5/4/2016  
Date

*[Signature]*  
First Witness Signature

5/4/2016  
Date

RUSSELL E. LAKE  
First Witness Printed Name

*B. Ludewig*  
Second Witness Signature

5/4/2016  
Date

Bernhard Ludewig  
Second Witness Printed Name

Notary Option

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day  
of \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
Qing Ji

STATE OF \_\_\_\_\_ )

COUNTY OF \_\_\_\_\_ )

This \_\_\_\_ day of \_\_\_\_\_, 20\_\_, before me personally came the  
above-named **Qing Ji**, to me personally known as the individual who executed the same of  
his/her own free will for the purposes therein set forth.

\_\_\_\_\_  
Notary Public

Commission expires on \_\_\_\_\_.

**Witness Signature Option**

Peter Seidl  
Peter Seidl

May 4, 2016  
Date

A. Perand  
First Witness Signature

2016-5-4  
Date

Aran Perand  
First Witness Printed Name

[Signature]  
Second Witness Signature

5/4/2016  
Date

Qing Ji  
Second Witness Printed Name

**Notary Option**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day  
of \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
Peter Seidl

STATE OF \_\_\_\_\_ )

COUNTY OF \_\_\_\_\_ )

This \_\_\_\_ day of \_\_\_\_\_, 20\_\_, before me personally came the  
above-named **Peter Seidl**, to me personally known as the individual who executed the same  
of his/her own free will for the purposes therein set forth.

\_\_\_\_\_  
Notary Public

Commission expires on \_\_\_\_\_.

**Witness Signature Option**

Will Waldron

Will Waldron

5/4/16

Date

P. C. Kozy

First Witness Signature

5/4/16

Date

PETER C. KOZY

First Witness Printed Name

[Signature]

Second Witness Signature

5/4/16

Date

TOM LIPSTON

Second Witness Printed Name

**Notary Option**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day  
of \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
Will Waldron

STATE OF \_\_\_\_\_ )

COUNTY OF \_\_\_\_\_ )

This \_\_\_\_ day of \_\_\_\_\_, 20\_\_, before me personally came the  
above-named **Will Waldron**, to me personally known as the individual who executed the  
same of his/her own free will for the purposes therein set forth.

\_\_\_\_\_  
Notary Public

Commission expires on \_\_\_\_\_.

**Witness Signature Option**

*Serhan Ardanuc*  
Serhan Ardanuc

01/23/2017  
Date

*Michelle Small*  
First Witness Signature

1/23/17  
Date

Charlene Lynn Cornwell  
First Witness Printed Name

*Charlene Lynn Cornwell*  
Second Witness Signature

1/23/17  
Date

Sezin Ardanuc  
Second Witness Printed Name

**Notary Option**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_\_ day  
of \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
Serhan Ardanuc

STATE OF \_\_\_\_\_ )

COUNTY OF \_\_\_\_\_ )

This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, before me personally came the  
above-named **Serhan Ardanuc**, to me personally known as the individual who executed the  
same of his/her own free will for the purposes therein set forth.

\_\_\_\_\_  
Notary Public

Commission expires on \_\_\_\_\_.

**Witness Signature Option**

Vinaya Kumar K.B 5/4/2016  
Vinaya Kumar Kadayra Basavarajappa Date

Benjamin Davaji 5/4/2016  
First Witness Signature Date

Benjamin Davaji  
First Witness Printed Name

[Signature] 5/19/16  
Second Witness Signature Date

VED GUND  
Second Witness Printed Name

**Notary Option**

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day  
of \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
Vinaya Kumar Kadayra Basavarajappa

STATE OF \_\_\_\_\_ )

COUNTY OF \_\_\_\_\_ )

This \_\_\_\_ day of \_\_\_\_\_, 20\_\_, before me personally came the  
above-named **Vinaya Kumar Kadayra Basavarajappa**, to me personally known as the  
individual who executed the same of his/her own free will for the purposes therein set forth.

\_\_\_\_\_  
Notary Public

Commission expires on \_\_\_\_\_.