

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT3350198

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
ROBERT A. BUHRMAN	03/13/2015
DANIEL C. RALPH	04/16/2015
CHI-FENG PAI	02/24/2015
LUQIAO LIU	02/25/2015
RECEIVING PARTY DATA	
Name:	CORNELL UNIVERSITY
Street Address:	CORNELL CENTER FOR TECHNOLOGY, ENTERPRISE & COMMERCIALIZATION ("CCTEC")
Internal Address:	395 PINE TREE ROAD, SUITE 310
City:	ITHACA
State/Country:	NEW YORK
Postal Code:	14850
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	14420335
CORRESPONDENCE DATA	
Fax Number:	(858)720-5819
<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>	
Phone:	858-720-5700
Email:	share@perkinscoie.com
Correspondent Name:	BING AI
Address Line 1:	PERKINS COIE LLP
Address Line 2:	PO BOX 1247
Address Line 4:	SEATTLE, WASHINGTON 98111-1247
ATTORNEY DOCKET NUMBER:	078554-8041.US01
NAME OF SUBMITTER:	BING AI
SIGNATURE:	/Bing Ai/
DATE SIGNED:	05/12/2015
Total Attachments: 20	

source=Assignment#page1.tif
source=Assignment#page2.tif
source=Assignment#page3.tif
source=Assignment#page4.tif
source=Assignment#page5.tif
source=Assignment#page6.tif
source=Assignment#page7.tif
source=Assignment#page8.tif
source=Assignment#page9.tif
source=Assignment#page10.tif
source=Assignment#page11.tif
source=Assignment#page12.tif
source=Assignment#page13.tif
source=Assignment#page14.tif
source=Assignment#page15.tif
source=Assignment#page16.tif
source=Assignment#page17.tif
source=Assignment#page18.tif
source=Assignment#page19.tif
source=Assignment#page20.tif

ASSIGNMENT

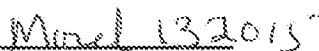
WHEREAS, We, **Robert A. Buhrman**, residing at 1372 Ellis Hollow Road, Ithaca, New York, 14850, **Daniel C. Ralph**, residing at 301 Old Gorge Road, Ithaca, New York, 14850, **Chi-Feng Pai**, residing at 2250 N. Triphammer Road, Apt. K3E, Ithaca, New York, 14850, and **Luqiao Liu**, residing at 1803 Hasbrouck Apartments, Ithaca, New York, 14850 have invented certain new and useful improvements in **ELECTRICALLY GATED THREE-TERMINAL CIRCUITS AND DEVICES BASED ON SPIN HALL TORQUE EFFECTS IN MAGNETIC NANOSTRUCTURES** for which an application for Letters Patent in the United States was filed as U.S. Serial No. 14/420,335 on February 6, 2015;

AND WHEREAS, **Cornell University**, with its principal place of business at **Cornell Center for Technology, Enterprise & Commercialization ("CCTEC")**, 395 Pine Tree Road, Suite 310, Ithaca, New York 14850 USA, is 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**, 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**, 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**, 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**, its successors, legal representatives, and assigns, to obtain and enforce proper patent protection for said improvements in all countries.


Robert A. Buhrman


Date

Witness Signature Option


Anita Venner


3/13/2015

First Witness Signature

Date

3/13/2015

AMITA VERMA

First Witness Printed Name

[Signature]

3/13/15

Second Witness Signature

Date

Catherine Long

Second Witness Printed Name

Notary Option

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this _____ day of _____, 2015

[Robert A. Buhrman]

STATE OF _____ : _____

COUNTY OF _____ :

This _____ day of _____, 2015, before me personally came the above-named _____, 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 _____.

Daniel C. Ralph

Date

Witness Signature Option

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 _____, 2015

[Daniel C. Ralph]

STATE OF _____ : _____

COUNTY OF _____ :

This _____ day of _____, 2015, before me personally came the above-named _____, 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 _____.

Chi-Feng Pai

Date

Witness Signature Option

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 _____, 2015

[Chi-Feng Pai]

STATE OF _____ : _____

COUNTY OF _____ :

This _____ day of _____, 2015, before me personally came the above-named _____, 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

Luqiao Liu

Date

Witness Signature Option

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 _____, 2015

[Luqiao Liu]

STATE OF _____ : _____

COUNTY OF _____ :

This _____ day of _____, 2015, before me personally came the above-named _____, 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 _____.

ASSIGNMENT

WHEREAS, We, **Robert A. Buhrman**, residing at 1372 Ellis Hollow Road, Ithaca, New York, 14850, **Daniel C. Ralph**, residing at 301 Old Gorge Road, Ithaca, New York, 14850, **Chi-Feng Pai**, residing at 2250 N. Triphammer Road, Apt. K3E, Ithaca, New York, 14850, and **Luqiao Liu**, residing at 1803 Hasbrouck Apartments, Ithaca, New York, 14850 have invented certain new and useful improvements in **ELECTRICALLY GATED THREE-TERMINAL CIRCUITS AND DEVICES BASED ON SPIN HALL TORQUE EFFECTS IN MAGNETIC NANOSTRUCTURES** for which an application for Letters Patent in the United States was filed as U.S. Serial No. **14/420,335** on **February 6, 2015**;

AND WHEREAS, **Cornell University**, with its principal place of business at **Cornell Center for Technology, Enterprise & Commercialization ("CCTEC"), 395 Pine Tree Road, Suite 310, Ithaca, New York 14850 USA**, is 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**, 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**, 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**, 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**, its successors, legal representatives, and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

Robert A. Buhrman

Date

Witness Signature Option

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 _____, 2015

[Robert A. Buhrman]

STATE OF _____ : _____

COUNTY OF _____ :

This _____ day of _____, 2015, before me personally came the above-named _____, 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 _____.

Daniel C. Ralph
Daniel C. Ralph

4/16/2015
Date

Witness Signature Option

First Witness Signature

Date

First Witness Printed Name

Second Witness Signature

Date

Second Witness Printed Name

Notary Option

April IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 16th day of April, 2015

[Daniel C. Ralph]

STATE OF New York:

COUNTY OF Tompkins:

This 16th day of April, 2015, before me personally came the above-named Daniel C. Ralph, to me personally known as the individual who executed the same of his/her own free will for the purposes therein set forth.

John C Miner
Notary Public

Commission expires on _____.

JOHN C MINER
Notary Public, State of New York
No. 01M14514238
Qualified in Tompkins County
Commission Expires 11-30-2017

Chi-Feng Pai

Date

Witness Signature Option

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 _____, 2015

[Chi-Feng Pai]

STATE OF _____ : _____

COUNTY OF _____ :

This _____ day of _____, 2015, before me personally came the above-named _____, 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

Luqiao Liu

Date

Witness Signature Option

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 _____, 2015

[Luqiao Liu]

STATE OF _____ : _____

COUNTY OF _____ :

This _____ day of _____, 2015, before me personally came the above-named _____, 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 _____.

ASSIGNMENT

WHEREAS, We, **Robert A. Buhrman**, residing at 1372 Ellis Hollow Road, Ithaca, New York, 14850, **Daniel C. Ralph**, residing at 301 Old Gorge Road, Ithaca, New York, 14850, **Chi-Feng Pai**, residing at 2250 N. Triphammer Road, Apt. K3E, Ithaca, New York, 14850, and **Luqiao Liu**, residing at 1803 Hasbrouck Apartments, Ithaca, New York, 14850 have invented certain new and useful improvements in **ELECTRICALLY GATED THREE-TERMINAL CIRCUITS AND DEVICES BASED ON SPIN HALL TORQUE EFFECTS IN MAGNETIC NANOSTRUCTURES** for which an application for Letters Patent in the United States was filed as U.S. Serial No. **14/420,335** on **February 6, 2015**;

AND WHEREAS, **Cornell University**, with its principal place of business at **Cornell Center for Technology, Enterprise & Commercialization ("CCTEC"), 395 Pine Tree Road, Suite 310, Ithaca, New York 14850 USA**, is 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**, 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**, 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**, 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**, its successors, legal representatives, and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

Robert A. Buhrman

Date

Witness Signature Option

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 _____, 2015

[Robert A. Buhrman]

STATE OF _____ : _____

COUNTY OF _____ :

This _____ day of _____, 2015, before me personally came the above-named _____, 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 _____.

Daniel C. Ralph

Date

Witness Signature Option

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 _____, 2015

[Daniel C. Ralph]

STATE OF _____ : _____

COUNTY OF _____ :

This _____ day of _____, 2015, before me personally came the above-named _____, 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 _____.

Chi-Feng Pai
Chi-Feng Pai

02/24/2015
Date

Witness Signature Option

[Signature]
First Witness Signature

02/24/2015
Date

Minae Ouk
First Witness Printed Name

[Signature]
Second Witness Signature

02/24/2015
Date

Parnika Agrawal
Second Witness Printed Name

Notary Option

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this _____ day of _____, 2015

[Chi-Feng Pai]

STATE OF _____ : _____
COUNTY OF _____ :

This _____ day of _____, 2015, before me personally came the above-named _____, 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

Luqiao Liu

Date

Witness Signature Option

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 _____, 2015

[Luqiao Liu]

STATE OF _____ : _____

COUNTY OF _____ :

This _____ day of _____, 2015, before me personally came the above-named _____, 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 _____.

ASSIGNMENT

WHEREAS, We, **Robert A. Buhrman**, residing at 1372 Ellis Hollow Road, Ithaca, New York, 14850, **Daniel C. Ralph**, residing at 301 Old Gorge Road, Ithaca, New York, 14850, **Chi-Feng Pai**, residing at 2250 N. Triphammer Road, Apt. K3E, Ithaca, New York, 14850, and **Luqiao Liu**, residing at 1803 Hasbrouck Apartments, Ithaca, New York, 14850 have invented certain new and useful improvements in **ELECTRICALLY GATED THREE-TERMINAL CIRCUITS AND DEVICES BASED ON SPIN HALL TORQUE EFFECTS IN MAGNETIC NANOSTRUCTURES** for which an application for Letters Patent in the United States was filed as U.S. Serial No. **14/420,335** on **February 6, 2015**;

AND WHEREAS, **Cornell University**, with its principal place of business at **Cornell Center for Technology, Enterprise & Commercialization ("CCTEC"), 395 Pine Tree Road, Suite 310, Ithaca, New York 14850 USA**, is 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**, 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**, 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**, 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**, its successors, legal representatives, and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

Robert A. Buhrman

Date

Witness Signature Option

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 _____, 2015

[Robert A. Buhrman]

STATE OF _____ : _____

COUNTY OF _____ :

This _____ day of _____, 2015, before me personally came the above-named _____, 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 _____.

Daniel C. Ralph

Date

Witness Signature Option

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 _____, 2015

[Daniel C. Ralph]

STATE OF _____ : _____

COUNTY OF _____ :

This _____ day of _____, 2015, before me personally came the above-named _____, 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 _____.

Chi-Feng Pai

Date

Witness Signature Option

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 _____, 2015

[Chi-Feng Pai]

STATE OF _____ : _____

COUNTY OF _____ :

This _____ day of _____, 2015, before me personally came the above-named _____, 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

Luqiao Liu
Luqiao Liu

02/25/15
Date

Witness Signature Option

[Signature]
First Witness Signature

2/25/15
Date

Joel Chodas
First Witness Printed Name

[Signature]
Second Witness Signature

2/25/15
Date

D. B. JANI
Second Witness Printed Name

Notary Option

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this _____ day of _____, 2015

[Luqiao Liu]

STATE OF _____:

COUNTY OF _____:

This _____ day of _____, 2015, before me personally came the above-named _____, 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 _____.