502634066 01/14/2014

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT2680674

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ANDREW KENT	11/22/2013
DANIEL BEDAU	11/30/2013
HUANLONG LIU	11/27/2013

RECEIVING PARTY DATA

Name:	NEW YORK UNIVERSITY
Street Address:	ONE PARK AVENUE
Internal Address:	6TH FLOOR
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10016

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	13298190	

CORRESPONDENCE DATA

Fax Number:

Phone: (312) 832-4500
Email: omelendez@foley.com

Correspondence will be sent via US Mail when the email attempt is unsuccessful.

Correspondent Name: FOLEY & LARDNER LLP
Address Line 1: 3000 K STREET NW
Address Line 2: 6TH FLOOR

Address Line 4: WASHINGTON, DISTRICT OF COLUMBIA 20007

ATTORNEY DOCKET NUMBER:	046434-0277
NAME OF SUBMITTER:	MATTHEW E. MARTIN

PATENT 502634066 REEL: 031962 FRAME: 0098

Signature:	/Matthew E. Martin/
Date:	01/14/2014
Total Attachments: 12 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	

PATENT REEL: 031962 FRAME: 0099

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

New York University One Park Avenue, 6th Floor New York, NY 10016

(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

BIPOLAR SPIN-TRANSFER SWITCHING

	11		
check one] executed concurrently herewith,		
	[] executed on,		
	[X] Serial No. 13/298,190 Filed 11/16/2011		

as set forth in this United States Patent Application

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.

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.

Page 1 of 4

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 22 day of November, 2015.
ANDREW KENT
State of New York
County of New Yolk
On this 22 day of November, 20 13 before me, Andrew Kent (a notary public in and for said county), personally appeared ANDREW KENT, 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 RASHAAD AHMAD WILSON Notary Public - State of New York
My Commission Expires: 04/03/2017 NO. 01W16288481 Qualified in Kings County My Commission Expires Sep 3, 2017
Executed this day of, 20
State of) DANIEL BEDAU
County of)
On thisday of, 20, before me, (a notary public in and for said county), personally appeared DANIEL BEDAU, 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
My Commission Expires:

Executed this	day of	, 20	
		шта	NLONG LIU
State of)	HOA	NEONG LIU
County of)		
subscribed to the within instrument a signature on the instrument the person	and acknowledged to on, or the entity upor	, 20, before me,, who proved to me on the basis of satisfactory o me that he/she executed the same in his/her an behalf of which the person acted, executed the	uthorized capacity, and that by his/her
WITNESS my hand and official seal.			
Signature		<u></u>	
My Commission Expires			

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

New York University One Park Avenue, 6th Floor New York, NY 10016

(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

BIPOLAR SPIN-TRANSFER SWITCHING

		• •	
check one	-] executed concurrently] executed on	herewith,
	-	-	
	X	Serial No. <u>13/298,190</u>	Filed 11/16/2011

as set forth in this United States Patent Application

as well as in and to (a) 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, (b) all Letters Patent which may issue from said applications in the United States and countries foreign thereto, (c) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (d) 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.

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.

Page 1 of 4

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, including evidence for interference, reexamination, reissue, opposition, revocation, extension or, 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 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	day of	, 20	
		***************************************	ANDREW KENT
State of			
County of)		
On this day of for said county), personally appeared A subscribed to the within instrument and signature on the instrument the person,	l acknowledged to me that he	/she executed the same in h	(a notary public in and actory evidence to be the person whose name is is/her authorized capacity, and that by his/her euted the instrument.
WITNESS my hand and official seal.			•
Signature			
My Commission Expires:	•		
Executed this 30	_ day of <u>November</u>	. 0	J. Bolas
State of CALIFORNIA	`		DANIEL BEDAU
County of SANTA CLAS			
On this 30 day of N for said county), personally appeared D subscribed to the within instrument and signature on the instrument the person,	d acknowledged to me that h	she executed the same in the	(a notary public in and factory evidence to be the person whose name is sher authorized capacity, and that by his her cuted the instrument.
WITNESS my hand and official seal. Signature		-	
My Commission Expires: Mac 26	, 2017	9 () c	ERIK MACIAS ommission No. 2015188 NOTARY PUBLIC-CALIFORNIA SANTA CLARA COUNTY COMMISSION MARCH 26, 2017

Page 3 of 4

Executed this	day of		. •	
			HUANLON	G LIU
State of)			
County of)			
On this day of for said county), personally appeared subscribed to the within instrument a signature on the instrument the personal	HUANLONG LIU and acknowledged t	to me that he/she executed the sa	s of satisfactory evidence ame in his/her authorized	to be the person whose name is capacity, and that by his/her
WITNESS my hand and official seal				
Signature				
My Commission Expires:				

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

New York University One Park Avenue, 6th Floor New York, NY 10016

(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

BIPOLAR SPIN-TRANSFER SWITCHING

as set forth i	n this	United States Patent App	olication
check one	•] executed concurrently [herewith,
	-	Serial No. 13/298,190	Filed 11/16/2011

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.

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.

Page 1 of 4

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	day of		, 20	•	
			-	ANDREW K	KENT
State of)				
County of)				
On this day of for said county), personally appeared subscribed to the within instrument ar signature on the instrument the person	nd acknowledged t	to me that	he/she executed the sai	me in his/her authorized c	apacity, and that by his/her
WITNESS my hand and official seal.					
Signature					
My Commission Expires:	-				
Executed this	day of		, 20		
			·	DANIEL BE	TDAH
State of)			DANIEL DE	DAU
County of)				
On this day of for said county), personally appeared subscribed to the within instrument ar signature on the instrument the person	nd acknowledged t	to me that	he/she executed the sai	me in his/her authorized c	apacity, and that by his/her
WITNESS my hand and official seal.					
Signature					
My Commission Expires:					

Executed this 27 day of November, 2013.
Huanberg Lin
State of Calfornia.
County of Sunta Clara
On this 27th day of November. 2013, before me, CHM/ LTT LEE (a notary public in and for said county), personally appeared HUANLONG LIU, 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 an Kit Lee CHUN KIT LEE
My Commission Expires: 127 23, 2015 My Commission Expires: 1933656 Notary Public - California Santa Clara County My Comm. Expires Apr 23, 2015

RECORDED: 01/14/2014