# 503009810 10/08/2014 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3056410

SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT	
CONVEYING PARTY DA	ATA			
		Name	Execution Date	
SHRIRAM RAMANATHAN			09/16/2013	
ZHENG YANG			09/15/2013	
YOU ZHOU			09/16/2013	
RECEIVING PARTY DA	ТА			
Name:	Preside	President and Fellows of Harvard College		
Street Address:	17 Quincy Street			
City:	Cambri	Cambridge		
State/Country:	MASSACHUSETTS			
Postal Code:	02138			
Property Type		Number		
		Number 14373908		
CORRESPONDENCE D	ΑΤΑ			
Fax Number:		(617)495-9568		
		o the e-mail address first; if that is unsu d; if that is unsuccessful, it will be sent v		
•	(617) 495-3067			
Phone:		(617) 495-3067		
Phone: Email:		(617) 495-3067 patents@harvard.edu		
Email:		patents@harvard.edu		
Email: Correspondent Name:		patents@harvard.edu ANNE CRAIG	CH. DEV.	
Email: Correspondent Name: Address Line 1:		patents@harvard.edu ANNE CRAIG 1350 MASSACHUSETTS AVE		
Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:		patents@harvard.edu ANNE CRAIG 1350 MASSACHUSETTS AVE HARVARD UNIVERSITY, OFFICE OF TE CAMBRIDGE, MASSACHUSETTS 02138		
Email: Correspondent Name: Address Line 1: Address Line 2:		patents@harvard.edu ANNE CRAIG 1350 MASSACHUSETTS AVE HARVARD UNIVERSITY, OFFICE OF TE CAMBRIDGE, MASSACHUSETTS 02138		
Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:		patents@harvard.edu ANNE CRAIG 1350 MASSACHUSETTS AVE HARVARD UNIVERSITY, OFFICE OF TE CAMBRIDGE, MASSACHUSETTS 02138 HU4328 14/373,908		
Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET NU		patents@harvard.edu ANNE CRAIG 1350 MASSACHUSETTS AVE HARVARD UNIVERSITY, OFFICE OF TE CAMBRIDGE, MASSACHUSETTS 02138 HU4328 14/373,908 ANNE CRAIG		

# **Total Attachments: 9**

source=4328 Assignment Executed by all Inventors#page1.tif source=4328 Assignment Executed by all Inventors#page2.tif source=4328 Assignment Executed by all Inventors#page3.tif

source=4328 Assignment Executed by all Inventors#page4.tif

PATENT

source=4328 Assignment Executed by all Inventors#page5.tif
source=4328 Assignment Executed by all Inventors#page6.tif
source=4328 Assignment Executed by all Inventors#page7.tif
source=4328 Assignment Executed by all Inventors#page8.tif
source=4328 Assignment Executed by all Inventors#page9.tif

#### ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the undersigned:

#### Shriram Ramanathan, Zheng Yang and You Zhou

(each hereafter "Assignor") hereby assign, sell, and transfer to:

# President and Fellows of Harvard College 17 Quincy Street, Cambridge, Massachusetts 02138

(hereafter "Assignee") its successors and assigns, Assignor's entire right, title and interest throughout the world in and to any and all inventions for:

#### ELECTRICALLY-DRIVEN PHASE TRANSITIONS IN FUNCTIONAL OXIDE HETEROSTRUCTURES

described in International Patent Application PCT/US13/24866, filed February 6, 2013, claiming priority to US Provisional Application 61/595,668, filed February 6 2012, and in and to the aforesaid application(s), in any form or embodiment thereof, and in and to any application on any of the inventions filed in this and any foreign country, based thereon, including the right to file said applications, apply for patent rights, and claim priority under the provisions of any international convention or treaty; also the entire right, title and interest throughout the world in and to any and all patents or reissues or extensions thereof to be obtained in this or any foreign country upon any of the inventions and any divisional, continuation, or substitute applications which may be filed upon said invention or inventions in this or any foreign country; and the right to sue in its own name and recover damages for past infringement of any United States Letters Patent and foreign patent; and authorize and request the issuing authority to issue any and all patents or applications to said Assignee or its successors and assigns.

For purposes of complying with foreign requirements, the above paragraph is intended to expressly grant all the recited rights and grants in China, Korea, and Japan.

Assignor hereby warrants that he/she has full right to convey his/her entire right, title and interest, both legal and equitable, in and to said inventions, free from all prior assignments, agreements, licenses, mortgages, security interests, or other encumbrances whatsoever; and

Assignor further agrees, without further payment or compensation by said Assignee or its successors and assigns, to communicate to said Assignee, its representatives or agents or its successors and assigns, any facts relating to said invention or inventions including evidence for interference purposes or for other legal proceedings, whenever requested; testify in any interference or other legal proceedings whenever

requested; execute and deliver, on request, all lawful papers required to make any of the foregoing provisions effective; and generally do everything possible to aid said Assignee,

1

its representatives or agents, or its successors or assigns to secure, obtain and enforce proper patent protection for said invention or inventions in this and any foreign country.

Assignor authorizes Assignee or Assignee's representative to supply and/or to correct any errors or omissions in the patent/application information provided above including but not limited to said application serial number(s) and filing date(s), prior to or after recordation.

Assignor appoints Assignee, through its designee, as its attorney-in-fact to execute, in Assignor's name and on Assignor's behalf, any and all documents required to effectuate this Assignment, specifically including, but not limited to, those documents specified above and any necessary corrective assignments.

Date Shriram/Ramanathan Witness

CLAUDIA STEARNS Witness's Printed Name

Date

**Zheng Yang** 

Date

Witness

#### Witness's Printed Name

Witness

#### ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged. I, the undersigned:

#### Shriram Ramanathan, Zheng Yang and You Zhou

(each hereafter "Assignor") hereby assign, sell, and transfer to:

# President and Fellows of Harvard College 17 Quincy Street, Cambridge, Massachusetts 02138

thereafter "Assignee") its successors and assigns. Assignor's entire right, title and interest throughout the world in and to any and all inventions for:

### ELECTRICALLY-DRIVEN PHASE TRANSITIONS IN FUNCTIONAL OXIDE HETEROSTRUCTURES

described in **International Patent Application PCT/US13/24866.** filed February 6, 2013, elaiming priority to **US Provisional Application 61/595,668.** filed February 6 2012, and in and to the aforesaid application(s), in any form or embodiment thereof, and in and to any application on any of the inventions filed in this and any foreign country, based thereon, including the right to file said applications, apply for patent rights, and claim priority under the provisions of any international convention or treaty; also the entire right, fitle and interest throughout the world in and to any and all patents or reissues or extensions thereof to be obtained in this or any foreign country upon any of the inventions and any divisional, continuation, or substitute applications which may be filed upon said invention or inventions in this or any foreign country; and the right to sue in its own name and recover damages for past infringement of any United States Letters Patent and foreign patent; and authorize and request the issuing authority to issue any and all patents on said applications to said Assignee or its successors and assigns.

For purposes of complying with foreign requirements, the above paragraph is intended to expressly grant all the recited rights and grants in China, Korea, and Japan.

Assignor hereby warrants that he/she has full right to convey his/her entire right, title and interest, both legal and equitable, in and to said inventions, free from all prior assignments, aurecments, licenses, mortgages, security interests, or other encumbrances whatsoever; and

Assignor further agrees, without further payment or compensation by said Assignee or its successors and assigns, to communicate to said Assignee, its representatives or agents or its successors and assigns, any facts relating to said invention or inventions including evidence for interference purposes or for other legal proceedings, whenever requested; testify in any interference or other legal proceedings whenever

requested: execute and deliver, on request, all lawful papers required to make any of the foregoing provisions effective: and generally do everything possible to aid said Assignce.

1

Patent Assignment 1971 part 1328 Appl. No.65: PC1/US13/24866 and 61/595.668

its representatives or agents, or its successors or assigns to secure, obtain and enforce proper patent protection for said invention or inventions in this and any foreign country.

Assignor authorizes Assignee or Assignee's representative to supply and/or to correct any errors or omissions in the patent/application information provided above including but not limited to said application serial number(s) and filing date(s), prior to or after recordation.

Assignor appoints Assignee, through its designee, as its attorney-in-fact to execute, in Assignor's name and on Assignor's behalf, any and all documents required to effectuate this Assignment, specifically including, but not limited to, those documents specified above and any necessary corrective assignments.

Date	Shriram Ramanathan	
Date	Witness	
	Witness's Printed Name	
September 15, 2013	ZMAT	
September 15, 2013 Date Sep. 15, 2013 Date	Zheng Yang Witness	
	Huimei Zhou Witness's Printed Name	
Date	You Zhou	
Date	Witness	
	Witness's Printed Name	

2

Date	You Zhou
Date	Witness
	Witness's Printed Name

# ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the undersigned:

#### Shriram Ramanathan, Zheng Yang and You Zhou

(each hereafter "Assignor") hereby assign, sell, and transfer to:

# President and Fellows of Harvard College 17 Quincy Street, Cambridge, Massachusetts 02138

(hereafter "Assignee") its successors and assigns, Assignor's entire right, title and interest throughout the world in and to any and all inventions for:

### ELECTRICALLY-DRIVEN PHASE TRANSITIONS IN FUNCTIONAL OXIDE HETEROSTRUCTURES

described in International Patent Application PCT/US13/24866, filed February 6, 2013, claiming priority to US Provisional Application 61/595,668, filed February 6 2012, and in and to the aforesaid application(s), in any form or embodiment thereof, and in and to any application on any of the inventions filed in this and any foreign country, based thereon, including the right to file said applications, apply for patent rights, and claim priority under the provisions of any international convention or treaty; also the entire right, title and interest throughout the world in and to any and all patents or reissues or extensions thereof to be obtained in this or any foreign country upon any of the inventions and any divisional, continuation, or substitute applications which may be filed upon said invention or inventions in this or any foreign country; and the right to sue in its own name and recover damages for past infringement of any United States Letters Patent and foreign patent; and authorize and request the issuing authority to issue any and all patents on said applications to said Assignee or its successors and assigns.

For purposes of complying with foreign requirements, the above paragraph is intended to expressly grant all the recited rights and grants in China, Korea, and Japan.

Assignor hereby warrants that he/she has full right to convey his/her entire right, title and interest, both legal and equitable, in and to said inventions, free from all prior assignments, agreements, licenses, mortgages, security interests, or other encumbrances whatsoever; and

Assignor further agrees, without further payment or compensation by said Assignee or its successors and assigns, to communicate to said Assignee, its representatives or agents or its successors and assigns, any facts relating to said invention or inventions including evidence for interference purposes or for other legal proceedings, whenever requested; testify in any interference or other legal proceedings whenever

requested; execute and deliver, on request, all lawful papers required to make any of the foregoing provisions effective; and generally do everything possible to aid said Assignee,

1

its representatives or agents, or its successors or assigns to secure, obtain and enforce proper patent protection for said invention or inventions in this and any foreign country.

Assignor authorizes Assignee or Assignee's representative to supply and/or to correct any errors or omissions in the patent/application information provided above including but not limited to said application serial number(s) and filing date(s), prior to or after recordation.

Assignor appoints Assignee, through its designee, as its attorney-in-fact to execute, in Assignor's name and on Assignor's behalf, any and all documents required to effectuate this Assignment, specifically including, but not limited to, those documents specified above and any necessary corrective assignments.

Date	Shriram Ramanathan
Date	Witness
	Witness's Printed Name
Date	Zheng Yang
Date	Witness

Witness's Printed Name

9/16/13

Date

You Zhou

\_\_\_9/16/13\_ Date

in V Witness

Wenjiao Cai Witness's Printed Name

**RECORDED: 10/08/2014**