

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4466648

<b>SUBMISSION TYPE:</b>	CORRECTIVE ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	Corrective Assignment to correct the FIRST AND SECOND ASSIGNOR EXECUTION DATES previously recorded on Reel 038386 Frame 0642. Assignor(s) hereby confirms the ASSIGNMENT OF ASSIGNORS INTEREST.
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
YI-QIAO SONG	06/18/2014
JEFFREY PAULSEN	05/13/2014
DONHEE HAM	09/09/2014
DONGWAN HA	09/12/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SCHLUMBERGER TECHNOLOGY CORPORATION
<b>Street Address:</b>	300 SCHLUMBERGER DRIVE
<b>City:</b>	SUGAR LAND
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	77478
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15032241
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(203)323-1800
<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>	(203) 323-1800
<b>Email:</b>	pto@gordonjacobson.com
<b>Correspondent Name:</b>	GORDON & JACOBSON, P.C.
<b>Address Line 1:</b>	60 LONG RIDGE ROAD
<b>Address Line 2:</b>	SUITE 407
<b>Address Line 4:</b>	STAMFORD, CONNECTICUT 06902
<b>ATTORNEY DOCKET NUMBER:</b>	SDR-152
<b>NAME OF SUBMITTER:</b>	JAY P. SBROLLINI
<b>SIGNATURE:</b>	/Jay P. Sbrollini/
<b>DATE SIGNED:</b>	06/19/2017

**Total Attachments: 11**

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## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT3846945

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
YI-QIAO SONG	06/25/2015
JEFFREY PAULSEN	06/25/2015
DONHEE HAM	09/09/2014
DONGWAN HA	09/12/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SCHLUMBERGER TECHNOLOGY CORPORATION
<b>Street Address:</b>	300 SCHLUMBERGER DRIVE
<b>City:</b>	SUGAR LAND
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	77478
<b>Name:</b>	PRESIDENT AND FELLOWS OF HARVARD COLLEGE
<b>Street Address:</b>	17 QUINCY STREET
<b>City:</b>	CAMBRIDGE
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	02138
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15032241
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(203)323-1803
<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>	203-323-1800
<b>Email:</b>	PTO@GORDONJACOBSON.COM
<b>Correspondent Name:</b>	GORDON & JACOBSON, P.C.
<b>Address Line 1:</b>	60 LONG RIDGE ROAD
<b>Address Line 2:</b>	SUITE 407
<b>Address Line 4:</b>	STAMFORD, CONNECTICUT 06902
<b>ATTORNEY DOCKET NUMBER:</b>	SDR-152

<b>NAME OF SUBMITTER:</b>	JAY P. SBROLLINI
<b>SIGNATURE:</b>	/Jay P. Sbrollini/
<b>DATE SIGNED:</b>	04/26/2016
<b>Total Attachments: 7</b> source=Signed-Assign-to-SDR-SDR-152#page1.tif source=Signed-Assign-to-SDR-SDR-152#page2.tif source=Signed-Assign-to-SDR-SDR-152#page3.tif source=Signed-Assign-to-SDR-SDR-152#page4.tif source=Signed-Assign-to-SDR-SDR-152#page5.tif source=Signed-Assign-Harvard-SDR-152#page1.tif source=Signed-Assign-Harvard-SDR-152#page2.tif	

### Assignment

WHEREAS, the undersigned inventors, hereinafter, referred to as the "Inventors," each said Inventor's address being listed below

**Yi-Qiao Song**, a citizen of the United States of America, residing at 78 Ridge Avenue, Newton, MA 02459, USA; and

**Jeffrey Paulsen**, a citizen of the United States of America, residing at 25 Kent St., Apt. #28, Brookline, MA 02446, USA;

Has/have invented certain new and useful improvements in

### IC-BASED NMR SYSTEMS

as described and set forth in a United States Provisional Patent Application filed on **October 28, 2013** under Serial Number **61/896464** (Docket No. **IS13.3185-US-PSP**). **This assignment is effective as of October 28, 2013.**

WHEREAS each of the undersigned persons warrants that no person other than these undersigned persons are inventors of the above-described invention;

AND WHEREAS, the "**COMPANIES**," listed in **Schedule A**, are desirous of acquiring or confirming their acquisition of the entire right, title and interest in and to said invention, inventions or improvements, and in and to said application, and in and to any and all patents, both of the United States and of all foreign countries, that may be obtained therefore **as outlined in Schedule A**;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, BE IT KNOWN, that the undersigned Inventors, for good and valuable considerations, the receipt and sufficiency of which hereby acknowledge, have sold, assigned, transferred and conveyed, and by this assignment do sell, assign, transfer and convey, unto said COMPANIES, their successors and assigns, the entire right, title and interest throughout the world, in and to the above-described invention, inventions or improvements described or set forth in said application, in any form or embodiment thereof, and in and to said application, and in and to any applications filed in any foreign country based thereon, including the right to file foreign applications under the provisions of any convention or treaty; and in and to any confirmation, divisional, continuation, continuation-in-part, or substitute application which may be filed on said invention, inventions or improvements in the United States or in any foreign country; and in and to any and all patents, certificates, utility models, reissues, extensions, additions or confirmations thereof which may be granted in the United States or in any foreign country upon said invention, inventions or improvements,

TO HAVE AND TO HOLD the same to the full end of the term or terms for which any and all such United States and foreign patents and grants may be issued on said invention, inventions or improvements.

AND said Inventors do hereby authorize and request the issuing authority to issue any and all of said United States and foreign patents on said application or applications to said **COMPANIES**, their successors and assigns, as the assignee of the entire right, title and interest in and to the same, for the sole use and benefit of said **COMPANIES**, their successors and assigns.

AND said Inventors do hereby covenant and warrant that said Inventors have full right to convey the entire right, title and interest herein assigned free and clear of all licenses, encumbrances and liens whatsoever, and that no said Inventors has executed and will execute any instruments in conflict herewith.

AND said Inventors, for the conditions aforesaid, do hereby covenant and agree to and with the said **COMPANIES**, their successors and assigns, that each Inventor, his or her executors, administrators, or other personal representatives, shall and will do all lawful acts and things, make all rightful oaths, and make, execute and deliver any and all other instruments in writing, and any and all further applications, papers, powers, affidavits, assignments, disclaimers and other documents, which in the opinion of counsel for said **COMPANIES**, their successors and assigns, may be required or necessary in this or in any foreign country more effectually to secure to and vest in said **COMPANIES**, their successors and assigns, the entire right, title and interest in and to said invention, inventions or improvements, application or applications, patents, rights, titles, benefits, privileges, and advantages hereby sold, assigned, confirmed, transferred and conveyed.

WITNESSED:

IN WITNESS WHEREOF I, **Yi-Qiao Song**, have hereunto set my hand and seal this 18<sup>th</sup> day of June, 2014.

## Yi-Qiao Song

COMMONWEALTH OF MASSACHUSETTS )

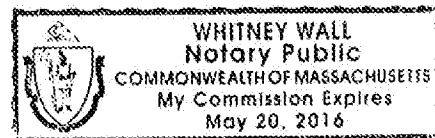
COUNTY OF MIDDLESEX )

On this 18<sup>th</sup> day of June, 2014, before me, the undersigned Notary Public, personally appeared, **Yi-Qiao Song**, proved to me through satisfactory evidence of identification, which were personal knowledge, to be the person who signed the preceding or attached document in my presence, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Seal

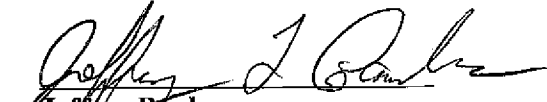
Notary Public

Notary Public



WITNESSED:

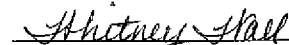
IN WITNESS WHEREOF I, **Jeffrey Paulsen**, have hereunto set my hand and seal this 13<sup>th</sup>  
day of May, 2014.

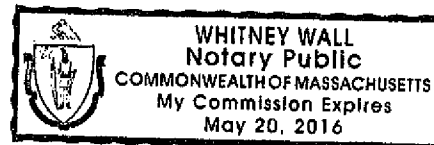
  
Jeffrey Paulsen

COMMONWEALTH OF MASSACHUSETTS    )  
  )  
COUNTY OF MIDDLESEX                    )

On this 13<sup>th</sup> day of May, 2014, before me, the undersigned  
Notary Public, personally appeared, **Jeffrey Paulsen**, proved to me through satisfactory evidence  
of identification, which were personal knowledge, to be the person  
who signed the preceding or attached document in my presence, and who swore or affirmed to  
me that the contents of the document are truthful and accurate to the best of his/her knowledge  
and belief.

Seal

  
Notary Public





**Schedule A**  
**"COMPANIES"**

**SCHLUMBERGER TECHNOLOGY CORPORATION**

Corporation of: United States of America

Located at: 300 Schlumberger Drive, Sugar Land, Texas 77478 U.S.A.

Assignee for applications in: United States of America

**SCHLUMBERGER CANADA LIMITED**

Corporation of: Canada

Located at: 525-3<sup>rd</sup> Avenue S.W., Calgary, Alberta, Canada T2P 0G4

Assignee for applications in: Canada

**SERVICES PETROLIERS SCHLUMBERGER**

Corporation of: France

Located at: 42 rue Saint Dominique, 75007 Paris, France

Assignee for applications in: France

**SCHLUMBERGER HOLDINGS LIMITED**

Corporation of: British Virgin Islands

Located at: P.O. Box 71, Craigmuir Chambers, Road Town, 1110 Tortola, British Virgin Islands

Assignee for applications in: Japan, The Netherlands, United Kingdom

**SCHLUMBERGER TECHNOLOGY B.V.**

Corporation of: the Netherlands

Located at: Parkstraat 83-89, 2514 JG The Hague, The Netherlands

Assignee for applications in: GCC and all other countries.

**PRAD RESEARCH AND DEVELOPMENT LIMITED**

Corporation of: British Virgin Islands

Located at: P.O. Box 71, Craigmuir Chambers, Road Town, 1110 Tortola, British Virgin Islands

Assignee for applications in: Angola, Bahrain, Bangladesh, Benin, Cambodia, Cameroon, Chad, China, Congo, Gabon, Ghana, Guinea-Bissau, India, Ivory Coast, Jordan, Libya, Mauritania, Morocco, Mozambique, Myanmar, Namibia, Nigeria, Philippines, Senegal, Sudan, Syria, Taiwan, Togo, UAE, Vietnam, Zaire.

## ASSIGNMENT

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

**Donhee Ham and Dongwan Ha**

(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:

### **IC-Based NMR Systems**

described in **United States Patent Application No. 61/896,464 filed October 28, 2013**, 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 application 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

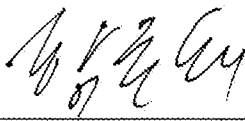

Assignor further agrees, without further payment or compensation by said Assignee or its successors and assigns, to communicate to said Assignee, its representatives or agents or its successors and assigns, any facts relating to said invention or inventions including evidence for interference purposes 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,

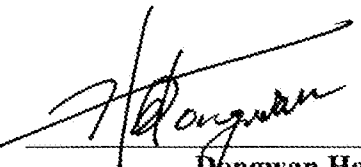
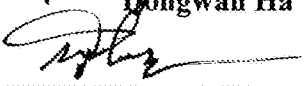
Patent Assignment  
HU Case 4823  
Appl. No(s): 61/896,464

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.

<u>09/09/2014</u>	<u></u>
Date	Donhee Ham
<u>9/9/2014</u>	<u></u>
Date	Witness
	<u>Michael A. Donohoe</u>
	Witness's Printed Name

<u>09/12/2014</u>	<u></u>
Date	Dongwan Ha
<u>9/12/2014</u>	<u></u>
Date	Witness
	<u>Michael A. Donohoe</u>
	Witness's Printed Name