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SUBMISSION TYPE:		NEW ASSIGNMENT					
NATURE OF CONVEYANCE:		ASSIGNMENT					
CONVEYING PAR	TY DATA		•				
4			Name	Execution Date			
Can-Ming HU				12/18/2008			
Yongsheng GUI				12/18/2008			
Andre WIRTHMAN	JN	12/18/2008					
Lihui BAI		12/22/2008					
Nikolai MECKING				12/22/2008			
RECEIVING PART	Y DATA						
Name: UNIVERSITY OF MANITOBA							
Street Address:	631 Drake C	631 Drake Centre					
City:	Winnipeg						
State/Country:	CANADA						
Postal Code:	R3T FV4						
Property Type		Number					
Application Number: 12		12267	12267386				
CORRESPONDEN	CE DATA						
Fax Number: (512)536-4598							
Correspondence will be sent via US Mail when the fax attempt is unsuccessful.							
Email: cnorred@fulbright.com							
Correspondent Name: S. Scott Gordon							
Address Line 1: 600 Congress Ave. Address Line 2: 0.14.0400							
Address Line 2:							
Address Line 4:	Austin,						
ATTORNEY DOCKET NUMBER:		UMAN:010US/10813690					
NAME OF SUBMITTER:			S. Scott Gordon				
			Ν				
F00700040				PATENT			
500762913				REEL: 022154 FRAME: 0309			

Total Attachments: 8 source=UMAN010US_ASSIGN#page1.tif source=UMAN010US_ASSIGN#page2.tif source=UMAN010US_ASSIGN#page3.tif source=UMAN010US_ASSIGN#page4.tif source=UMAN010US_ASSIGN#page5.tif source=UMAN010US_ASSIGN#page7.tif source=UMAN010US_ASSIGN#page8.tif

PATENT FILE NO. UMAN:010US

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, the undersigned, do hereby:

SELL, ASSIGN AND TRANSFER to UNIVERSITY OF MANITOBA (the "Assignee"), having a place of business at 631 Drake Centre, Winnipeg, MB R3T FV4, Canada, the entire right, title and interest for the United States and all foreign countries in and to any and all improvements which are disclosed in the application for United States Letters Patent, Serial No. 12/267,386 which has been filed on November 7, 2008 and is entitled "SYSTEMS AND METHODS FOR RF MAGNETIC-FIELD VECTOR DETECTION BASED ON SPIN RECTIFICATION EFFECTS," which claims priority to U.S. Provisional Application No. 60/986,743 filed November 9, 2007, such application and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States and all foreign countries on any of such improvements; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such improvements in the Assignee, and for securing, maintaining and enforcing proper patent protection for such improvements; TO BE BINDING on the heirs, assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee.

anall	Date: Dec. 18.08
Signature:	Date.
Name: Can-Ming HU	1

BEFORE ME, the undersigned authority, on this $\begin{bmatrix} 8^{th} \\ 8^{th} \end{bmatrix}$ day of <u>December</u>, 2008 personally appeared Can-Ming HU, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same of his/her own free will for the purposes and consideration therein expressed.

WANDT KLASSEN

Date:

Witness

Signature:

Name: Nikolai MECKING

BEFORE ME, the undersigned authority, on this _____ day of _____, 2008 personally appeared Nikolai MECKING, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same of his/her own free will for the purposes and consideration therein expressed.

Witness

80404141.I

Signature: Name: Yongsheng GUI

Date: Dec. 18 2008

BEFORE ME, the undersigned authority, on this 18th day of ALECETIBER, 2008 personally appeared Yongsheng GUI, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same of his/her own free will for the purposes and consideration therein expressed.

W.Klassen Witness WANDA KLASSEN

Warthma Signature: / Name: Andre WIRTHMANN

Date: DEC 18 2008

BEFORE ME, the undersigned authority, on this 18th day of DECEMBER, 2008 personally appeared Andre WIRTHMANN, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same of his/her own free will for the purposes and consideration therein expressed.

KLASSEN itness UCANDA

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Signature:

Date: Dec. 22. 2008

Name: Lihui BAI

ihui Bai

BEFORE ME, the undersigned authority, on this <u>22</u> day of <u>becember</u>, 2008 personally appeared Lihui BAI, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same of his/her own free will for the purposes and consideration therein expressed.

Malsoto Kohda Witness

FULBRIGHT & JAWORSKI L.L.P. 600 Congress Avenue, Suite 2400 Austin, Texas 78701

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PATENT FILE NO. UMAN:010US

<u>A S S I G N M E N T</u>

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, the undersigned, do hereby:

SELL, ASSIGN AND TRANSFER to UNIVERSITY OF MANITOBA (the "Assignee"), having a place of business at 631 Drake Centre, Winnipeg, MB R3T FV4, Canada, the entire right, title and interest for the United States and all foreign countries in and to any and all improvements which are disclosed in the application for United States Letters Patent, Serial No. 12/267,386 which has been filed on November 7, 2008 and is entitled "SYSTEMS AND METHODS FOR RF MAGNETIC-FIELD VECTOR DETECTION BASED ON SPIN RECTIFICATION EFFECTS," which claims priority to U.S. Provisional Application No. 60/986,743 filed November 9, 2007, such application and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States and all foreign countries on any of such improvements; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such improvements in the Assignee, and for securing, maintaining and enforcing proper patent protection for such improvements;

PATENT REEL: 022154 FRAME: 0315 TO BE BINDING on the heirs, assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee.

Date:

Signature: Name: Can-Ming HU

BEFORE ME, the undersigned authority, on this ______ day of ______, 2008 personally appeared Can-Ming HU, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same of his/her own free will for the purposes and consideration therein expressed

Witness

Signature: Name: Nikolai MECKING

Date: 2.2. 12 2008

Name: Mkolal MECKING

BEFORE ME, the undersigned authority, on this <u>12</u> day of <u>DECEMBER</u>, 2008 personally appeared Nikolai MECKING, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same of his/her own free will for the purposes and consideration therein expressed.

MICHAEL MECHING Witness

Signature:

Date:_____

Name: Yongsheng GUI

BEFORE ME, the undersigned authority, on this _____ day of _____, 2008 personally appeared Yongsheng GUI, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same of his/her own free will for the purposes and consideration therein expressed.

Witness

Signature:

Name: Andre WIRTHMANN

Date:_____

BEFORE ME, the undersigned authority, on this _____ day of _____, 2008 personally appeared Andre WIRTHMANN, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same of his/her own free will for the purposes and consideration therein expressed.

Witness

Signature: _____

Date:

Name: Lihui BAI

BEFORE ME, the undersigned authority, on this ____ day of _____, 2008 personally appeared Lihui BAI, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same of his/her own free will for the purposes and consideration therein expressed.

Witness

FULBRIGHT & JAWORSKI L.L.P. 600 Congress Avenue, Suite 2400 Austin, Texas 78701

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PATENT REEL: 022154 FRAME: 0318

RECORDED: 01/26/2009