

PATENT ASSIGNMENT

Electronic Version v1.1
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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Merton C. Flemings	03/30/2010
David V. Ragone	03/25/2010
RECEIVING PARTY DATA	
Name:	Massachusetts Institute of Technology
Street Address:	77 Massachusetts Avenue
City:	Cambridge
State/Country:	MASSACHUSETTS
Postal Code:	02139
PROPERTY NUMBERS Total: 1	
Property Type	Number
PCT Number:	US1027575
CORRESPONDENCE DATA	
Fax Number:	(978)341-0136
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Phone:	978-341-0036
Email:	Loretta.Boudreau@hbsr.com
Correspondent Name:	N. Scott Pierce
Address Line 1:	530 Virginia Road, P.O. Box 9133
Address Line 2:	Hamilton Brook Smith Reynolds P.C.
Address Line 4:	Concord, MASSACHUSETTS 01742-9133
ATTORNEY DOCKET NUMBER:	0050.2127-001
NAME OF SUBMITTER:	Loretta A. Boudreau

Total Attachments: 6
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**PATENT
 REEL: 024438 FRAME: 0557**

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Joint

ASSIGNMENT

WHEREAS, we, **Merton C. Flemings** and **David V. Ragone**, have invented a certain improvement in **Method of Refining the Grain Structure of Alloys** described in an application for Patent,

- the specification of which is about to be filed in the United States Patent Office (*use for utility (37 CFR § 1.53(b)) and design filings only*);
- is about to be filed in the United States Patent Office as a Provisional Application;
- the specification of which is United States Application No. [], filed [];
- the specification of which is a Patent Cooperation Treaty Application, International Application No. PCT/US2010/027575, filed March 17, 2010, which designates the United States of America;
- which was patented under United States Patent No. [].

WHEREAS, **Massachusetts Institute of Technology** (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the **Commonwealth of Massachusetts**, and having a usual place of business at **77 Massachusetts Avenue, Cambridge, Massachusetts 02139** desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue on said invention; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein; we hereby expressly authorize the filing of an International Patent Application under the Patent Cooperation Treaty which corresponds to and claims the priority of the above-identified application;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of any future applications including substitution, reissue, divisional or continuation applications, and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request each Patent Office and the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said invention to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

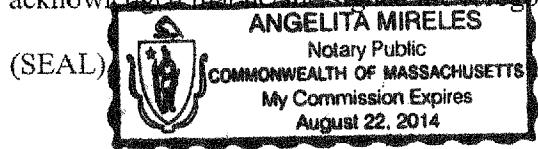
Inventor's Signature: Merton C. Flemings
Merton C. Flemings

State/Commonwealth of Massachusetts
County of Middlesex

On this 30 day of March 20 10, before me, the undersigned notary public, personally appeared Merton C. Flemings,

- personally known to me, or
- proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.



Notary Public Angelita Mireles
Angelita Mireles (print name)
My Commission expires 8 / 22 / 2014

Inventor's Signature: _____
David V. Ragone

State/Commonwealth
of _____
County of _____

On this _____ day of _____ 20____, before me, the undersigned notary
public, personally appeared David V. Ragone,

- personally known to me, or
 proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and
acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL) Notary Public _____

(print name)
My Commission expires ____/____/____

JointASSIGNMENT

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AND, we do hereby authorize and request each Patent Office and the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said invention to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor's Signature: _____
Merton C. Flemings

State/Commonwealth
of _____
County of _____

On this _____ day of _____ 20____, before me, the undersigned notary public, personally appeared Merton C. Flemings,

- personally known to me, or
- proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL) Notary Public _____
_____(print name)
My Commission expires ____/____/____

Inventor's Signature: *David V. Ragone*
David V. Ragone

State/Commonwealth
of Massachusetts
County of NORFOLK

On this 25th day of MARCH 2010, before me, the undersigned notary public, personally appeared David V. Ragone,

personally known to me, or

proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public *Lucy M. Morana*
Lucy M. MORANA (print name)
My Commission expires 04/21/2011



LUCY M. MORANA
Notary Public
Commonwealth of Massachusetts
My Commission Expires
April 21, 2011