

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT5367124

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
TING AN ZHANG	09/27/2018
YAN LIU	09/27/2018
ZHI HE DOU	09/27/2018
ZI MU ZHANG	09/27/2018
GUO ZHI LV	09/27/2018
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PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16318020
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DATE SIGNED:	02/08/2019
Total Attachments: 2	
source=2019-02-08 Assignment#page1.tif	

ASSIGNMENT BY INVENTOR(S) OF U.S. APPLICATION

WHEREAS, I am the original, first and sole inventor and I own (if only one name is listed below) or an original, first and joint inventor and the joint inventors own (if plural names are listed below) (referred to as "ASSIGNOR" below) the subject matter which is claimed and for which a patent is sought on the invention (referred to as the "INVENTION" below) entitled:

Title: **Method for Ironmaking by Smelting Reduction in Stir-generated Vortex**

the specification of which (check one):

<input type="checkbox"/>	is executed on even date herewith.		
<input type="checkbox"/>	was filed on (day-month-year)		as U.S. Application Number
<input checked="" type="checkbox"/>	was filed on (day-month-year)	28-04-2017	as PCT Application Number PCT/CN2017/082308
<input type="checkbox"/>	was executed on the following date(s)		

WHEREAS, **Northeastern University**


having a postal address of **No.11, Lane 3, Wenhua Road, Heping District, Shenyang City, Liaoning Province, 110819, China**


(referred to as "ASSIGNEE" below) desires to acquire the entire right, title and interest in and to the same in the U.S.;


NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, ASSIGNOR, by these presents does sell, assign and transfer unto ASSIGNEE, the entire right, title, and interest in and to said INVENTION and application throughout the United States of America, including any and all patents granted on any division, continuation, continuation-in-part and reissue of said application.


ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent applications in the United States for said INVENTION, including additional documents that may be required to affirm the rights of ASSIGNEE in and to said INVENTION, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE's expense, to identify and communicate to ASSIGNEE at ASSIGNEE's request documents and information concerning the INVENTION that are within ASSIGNOR's possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance and defense of any patent application or patent encompassed within the terms of this instrument. ASSIGNOR's obligations under this instrument shall extend to ASSIGNOR's heirs, executors, administrators and other legal representatives.

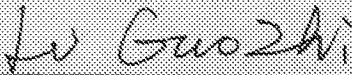
ALSO, ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all patents referred to above to ASSIGNEE, as the ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE's sole use and behoof, and for the use and behoof of ASSIGNEE's legal representatives and successors, to the full end of the term for which such patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.

Full Name of First or Sole Inventor ZHANG, Ting an	Post Office Address No.11, Lane 3, Wenhua Road, Heping District, Shenyang City, Liaoning Province, 110819, China
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Date September 27, 2018	Signature 

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Citizenship	Residence (city, and either state or foreign country, MPEP §605.02)
Date	Signature