506542118 03/08/2021

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HONGBING MA	02/26/2021

RECEIVING PARTY DATA

Name:	THE CURATORS OF THE UNIVERSITY OF MISSOURI		
Street Address:	316 UNIVERSITY HALL		
City:	COLUMBIA		
State/Country:	MISSOURI		
Postal Code:	65211		

PROPERTY NUMBERS Total: 1

Property Type	Number
Patent Number:	8763408

CORRESPONDENCE DATA

Fax Number: (314)863-9388

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.

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Email: stl.uspatents@stinson.com

Correspondent Name: STINSON LLP

Address Line 1: 7700 FORSYTH BLVD., SUITE 1100

Address Line 4: ST. LOUIS, MISSOURI 63105

ATTORNEY DOCKET NUMBER:	UMO10009.1 (DSS)
NAME OF SUBMITTER:	DEBRA S. STAAS
SIGNATURE:	/Debra S. Staas/
DATE SIGNED:	03/08/2021

Total Attachments: 5

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> **PATENT** REEL: 055521 FRAME: 0437

506542118

ASSIGNMENT OF PATENT RIGHTS FROM INVENTOR TO UNIVERSITY

This Assignment of Patent Rights from Inventor to University Agreement ("Agreement") is entered into by and between **Hongbing Ma**, an individual having an address of 4925 Kathy Glen Court, Columbia, Missouri 65203 ("Assignor") and **The Curators of the University of Missouri**, a public corporation of the State of Missouri having a principal place of business at 316 University Hall, Columbia, Missouri 65211, U.S.A. ("Assignee").

WHEREAS Assignor has contributed to the subject matter of the invention disclosed, described, and/or claimed in UM Invention Disclosure No. 10UMC009 entitled "Hybrid Integrated Thermal Electric and Ejector Active Cooling System" ("Invention Disclosure Form") which is the subject of United States Patent Application Serial No. 12/896,597 filed on October 1, 2010 entitled "Hybrid Thermoelectric-Ejector Cooling System" and Application Serial No. 61/247,824 filed on October 1, 2009, entitled "Hybrid Integrated Thermoelectric-Ejector Active Cooling System" ("Patent Applications"); and

WHEREAS, pursuant to Assignor's assignment obligations under the Assignee's Collected Rules and Regulations § 100.020, Assignor has an obligation to convey any and all rights that Assignor has or might have in the aforementioned invention and Patent Application; and

WHEREAS Assignor has assigned his/her rights in the invention and Patent Application pursuant to the Invention Disclosure Form; and

WHEREAS Assignor is willing to execute this notarized Agreement in order to confirm the assignment of rights in the Patent Application (and other rights as more fully set forth below) to Assignee.

NOW THEREFORE, in consideration of Assignor's past and continued employment with and use of Assignee's funds and facilities, Assignor's assignment obligations and royalty-sharing rights under the Collected Rules and Regulations § 100.020, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Assignment

Assignor hereby assigns, transfers, and conveys (and confirms any prior such conveyance as the case may be) to Assignee, and Assignee hereby accepts, Assignor's entire right, title and interest in and to:

- (a) the invention disclosed and/or claimed, in whole or in part, in the Patent Application and any and all improvements therein conceived or reduced to practice by Assignor in the course of and the general scope of Assignor's employment with Assignee (collectively the "Invention");
- (b) all patents and patent applications that have been or may hereafter be filed which are based on the Invention in any country, including the Patent Application and any provisional, non-provisional, divisional, continuation, continuation-in-part, extension, renewal, re-examination, reissue, substitute, supplementary protection

- certificate, utility model, or similar legal protection based on the Invention ("Patents");
- (c) the right to claim priority to any of the Patents under the patent laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or laws of the country in which the Patents are filed, as may be applicable; and
- (d) all rights of action, powers, and benefits arising from ownership of the Patents, including the right to sue for past, present, and future infringement of the Patents, the right to collect royalties, fees, damages, and payments now or hereafter due or payable with respect to the Patents, the right to seek injunctive relief based on the Patents, and the right to pursue all causes of action and all enforcement rights relating to the Patents, whether known or unknown, currently pending or otherwise.

Assignor's rights assigned in (a)-(d) above are referred to collectively in this Agreement as the "Assigned Rights."

Assignor authorizes and requests the Director of the United States Patent and Trademark Office, and any corresponding entity, agency, or official of any other country whose duty it is to issue patents or similar legal protection, to issue the Patents to Assignee such that the Patents will be held by Assignee for its own use and benefit, for the full term for which the Patents are or may be granted.

2. Further Assurances

Upon the reasonable request of Assignee, Assignor agrees to execute such documents and perform such acts as may be necessary to give full effect to the terms of this Agreement. Without limiting the generality of the foregoing, Assignor agrees to execute any and all assignments and other documents that may be needed to record, vest, or perfect Assignee's right, title, and interest in and to the Assigned Rights as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment had not been made. Assignor also agrees to execute any and all declarations, oaths, specifications, and other documents requested by Assignee in connection with prosecution of the Patents. Assignor further agrees to cooperate with and assist Assignee with respect to prosecution of the Patents, including communication to Assignee of any facts known to Assignor relating to the Invention and/or any prior art that may be material to patentability of the Invention. Assignor also agrees that in the event any of the Patents become involved in an interference, derivation proceeding, re-examination, reissue, opposition, supplemental examination, inter partes review, post grant review, validity, or infringement proceeding or litigation, Assignor will cooperate with and assist Assignee in relation to the proceeding for the benefit of Assignee at Assignee's expense.

3. Representations and Warranties

Assignor represents and warrants to Assignee that:

(a) Assignor has the full right and power to enter into and perform their obligations under this Agreement without being in breach of any obligations owed by Assignor to any third party;

- (b) The Assigned Rights are free and clear of any agreement, lien, charges, encumbrances, ownership claim, or other claim or right, either written, oral, or implied, which will impair, interfere or conflict with the rights herein assigned to Assignee; and
- (c) Assignor has not assigned, transferred, or otherwise conveyed and will not assign, transfer, or otherwise convey to any third party any right or license under or with respect to the Assigned Rights or execute any other agreement that is in conflict with this Agreement.

4. Attorney-In-Fact

Assignor hereby irrevocably appoints the President of Assignee, or the President's designee, as Assignor's attorney-in-fact with authority to execute for Assignor and on Assignor's behalf any and all assignments, applications, or other instruments and documents required to be executed by Assignor pursuant to this Agreement, if Assignor is unwilling or unable to execute same. This appointment shall be deemed to be a power coupled with an interest, and as such, is irrevocable.

5. Patent Application Information

Assignor hereby authorizes Assignee or its attorneys to insert in this Assignment the serial number and filing date of the Patent Application when known.

6. Binding Agreement

The provisions of this Agreement are binding upon, and will inure to the benefit of, the parties hereto and their respective heirs, personal representatives, successors and permitted assigns.

7. <u>Counterparts</u>

This Agreement may be executed in any number of counterparts, including facsimile or scanned PDF documents. Each such counterpart, facsimile or scanned PDF document shall be deemed an original instrument, and all of such counterparts, together, shall constitute one and the same executed Agreement.

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IN WITNESS WHEREOF, Assignor and Assignee have executed this Assignment Agreement as of the day and year written below.

HONGBIN MA	
By Hough / or	02/26 /2021
Title professor	Date
/ '	Acknowledgement
STATE OF Missour)) SS
COUNTY OF BOOM)
State and County aforesaid, persona	before me, a Notary Public in and for the ally appeared Hongbin Ma, to me known and known to me to signed and sealed the foregoing instrument, and he see act and deed.
KARLA ALSBERGE Netary Public, Notary Seal State of Missouri Boone County Commission # 15635992 My Commission Expires 06-07-202	Notary Public 3
(SEAL) My Commission Expires: 4	17/2023

THE CURATORS OF T	HE UNIVERSITY	OF MISSOURI	
By UNLL	alerania de la compania de la compa	311/8	
Lisa Lorenzen, PhI	}		Date
Assistant Vice Cha			
Technology Advan	cement		
	Ackno	wiedgement	
	,		
STATE OF MISSOURI) }\$\$		
COUNTY OF BOONE) 33)		
COOMITOUR DOOLE	3		
State and County aforesa	d, personally appear	ed Lisa Lorenzen, to sealed the foregoing	Notary Public in and for the me known and known to me instrument, and she he Curators of the University
KARLA ALSI Notary Public, N State of Mi Boone Co Commission & My Commission Exp	lotary Seal ssouri unty 15635992 irae 08-07-2023	Kala Notary Public	<u> Alsberge</u>
My Commission Expires	: <u>(e/7/20</u>	<u> 22 </u>	

University of Missouri Assignment of Patent Rights from Inventor to University Delegated Standard Form Revised 9/14/20