

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Hongbin Ma	07/28/2010
RECEIVING PARTY DATA	
Name:	The Curators of the University of Missouri
Street Address:	340a Bond Life Sciences Center
Internal Address:	1201 East Rollins
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State/Country:	MISSOURI
Postal Code:	65211
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	12745168
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NAME OF SUBMITTER:	Debra S. Staas
Total Attachments: 3 source=01282389#page1.tif source=01282389#page2.tif source=01282389#page3.tif	

OP \$40.00 12745168

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PATENT
REEL: 024853 FRAME: 0691

ASSIGNMENT AGREEMENT

In consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, **Hongbin Ma**, an individual having an address of **3713 Teakwood Drive, Columbia, MO 65203** (hereinafter "Assignor") hereby assigns, transfers and conveys to **The Curators of the University of Missouri**, a public corporation of the State of Missouri having a principal place of business 340a Bond Life Sciences Center, 1201 East Rollins, Columbia, MO 65211, its successors, legal representatives, and assigns (hereinafter "Assignee"), the Assignors' entire right, title and interest in and to the invention contained and described in UM Invention Disclosure No. **08UMC016** entitled "**HEAT PIPE VELOCITY ABSORPTION REFRIGERATION SYSTEM AND HOT WATER SYSTEM**"; in and to the patent application filed on the **27th day of May, 2010**, entitled "**THERMALLY DRIVEN HEAT PUMP FOR HEATING AND COOLING**" and assigned Application No. **12/745,168** based thereon; in and to all patents to be issued pursuant to said application and any divisionals, continuations, continuations in part, extensions, renewals, and reissues thereof; and in and to all applications for patents or similar legal protection that may hereafter be filed for said invention in any country, all patents or similar legal protection that may be granted for said invention in any country and all extensions, renewals and reissues thereof or legal equivalent thereof.

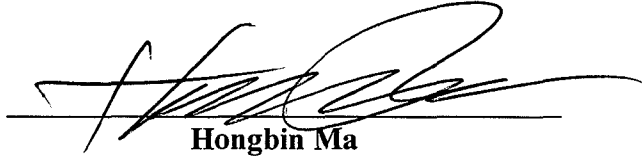
Assignor hereby authorizes and requests the Director of Patents and Trademarks of the United States, and any official of any other country whose duty it is to issue patents or similar legal protection on said applications, to issue patents or similar legal protection for said invention to Assignee, the same to be held by Assignee for its own use and benefit, to the full end of the term for which said patents or similar legal protection are or may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor had this assignment not been made.

Assignor hereby further agrees, upon the request of Assignee, to execute any and all applications for divisionals, continuations and/or continuations in part for said invention or improvements and any supplemental oath or declaration relating thereto, and any applications for the reissue or extension of any patent that may be granted upon said applications that Assignee may deem necessary or expedient. Assignor agrees to supply Assignee with all information that may be material to the patentability of the invention and to cooperate with Assignee and its representatives in preparing arguments in support of patentability. Assignor further agrees that in the event any said application, or patent issued thereon, becomes involved in an interference, upon request of Assignee, Assignor will cooperate to the best of its ability with Assignee in preparing the preliminary statement and giving and producing evidence in support thereof. Assignor also agrees that in the event any patent issued from said application, becomes involved in litigation, upon request of Assignee, Assignor will cooperate to the best of its ability with Assignee in producing evidence in support thereof. Assignor hereby agrees to perform, upon such request, any and all affirmative acts to obtain said patents or similar legal protection, and vest all rights therein in Assignee as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment had not been made. 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. Nothing contained in this assignment obligates the Assignee to file a patent application, either provisional or non-provisional, or any divisionals, continuations, continuations in part, extensions, renewals, and reissues thereof, or to continue prosecution of any such filings. Assignor hereby acknowledges

that the decision whether or not to file or continue prosecution of any of the foregoing shall be within Assignee's sole discretion.

Assignor hereby covenants and warrants that as of the date hereof it is a true inventor of said invention, has the full right and power to convey the invention, the applications and any patent issuing there from to Assignee, that the same are free and clear of all liens, charges and encumbrances whatsoever, and that it has not executed and will not execute any agreement in conflict herewith.

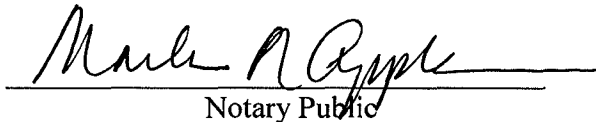
WITNESS my hand and seal this 28 day of July, 2010


Hongbin Ma

ACKNOWLEDGMENT

STATE OF Missouri)
COUNTY OF Boone) SS

On this 28th day of July, 2010, before me, a Notary Public in and for the State and County aforesaid, personally appeared [Inventor], to me known and known to me to be the person of that name who signed and sealed the foregoing instrument, and [he/she] acknowledged the same to be [his/her] free act and deed.


Notary Public

(SEAL)

My Commission Expires:

2/23/14

MARLA N. APPLEBAUM
Notary Public - State of Missouri
My Commission Expires February 23, 2014
Boone County
Commission #10438891