504409424 06/12/2017

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT	
CONVEYING PARTY D	ΑΤΑ			
		Name	Execution Date	
AMRO M. AL-QUTUB			03/31/2016	
RECEIVING PARTY DA				
Name:	KING F	KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS		
Street Address:	3304 17	3304 ITTIHAD STREET		
City:	DHAHF	DHAHRAN		
State/Country:	SAUDI	SAUDI ARABIA		
Postal Code:	31261	31261		
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PROPERTY NUMBERS	S Total: 1			
Property Type		Number		
Application Number: 153		15323376		
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Fax Number:		(617)401-3687		
	be sent to	the e-mail address first; if that is uns ; if that is unsuccessful, it will be sen		
		6174012460		
Email: bob@				
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Correspondent Name:		ROBERT J SAYRE		
Correspondent Name: Address Line 1:		0		
Correspondent Name:		ROBERT J SAYRE		
Correspondent Name: Address Line 1:		ROBERT J SAYRE MODERN TIMES LEGAL	2	
Correspondent Name: Address Line 1: Address Line 2: Address Line 4:		ROBERT J SAYRE MODERN TIMES LEGAL 1 BROADWAY, 14TH FLOOR	2	
Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	UMBER:	ROBERT J SAYRE MODERN TIMES LEGAL 1 BROADWAY, 14TH FLOOR CAMBRIDGE, MASSACHUSETTS 0214	2	
Correspondent Name: Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER:	UMBER:	ROBERT J SAYRE MODERN TIMES LEGAL 1 BROADWAY, 14TH FLOOR CAMBRIDGE, MASSACHUSETTS 0214 MIT-15761		
Correspondent Name: Address Line 1: Address Line 2:	UMBER:	ROBERT J SAYRE MODERN TIMES LEGAL 1 BROADWAY, 14TH FLOOR CAMBRIDGE, MASSACHUSETTS 0214 MIT-15761 ROBERT J. SAYRE		
Correspondent Name: Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER: BIGNATURE:	UMBER:	ROBERT J SAYRE MODERN TIMES LEGAL 1 BROADWAY, 14TH FLOOR CAMBRIDGE, MASSACHUSETTS 0214 MIT-15761 ROBERT J. SAYRE /Robert J. Sayre, Reg. No. 42,124,		
Correspondent Name: Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER: BIGNATURE: DATE SIGNED:	UMBER:	ROBERT J SAYRE MODERN TIMES LEGAL 1 BROADWAY, 14TH FLOOR CAMBRIDGE, MASSACHUSETTS 0214 MIT-15761 ROBERT J. SAYRE /Robert J. Sayre, Reg. No. 42,124, 06/12/2017		
Correspondent Name: Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER: DATE SIGNED: Fotal Attachments: 3	UMBER:	ROBERT J SAYRE MODERN TIMES LEGAL 1 BROADWAY, 14TH FLOOR CAMBRIDGE, MASSACHUSETTS 0214 MIT-15761 ROBERT J. SAYRE /Robert J. Sayre, Reg. No. 42,124, 06/12/2017		

mit-15761pct

ASSIGNMENT

> WHEREAS, I, Amro M. Al-Qutub, of King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia, along with Prakash Narayan Govindan and John H. Lienhard, both currently or previously at Massachusetts Institute of Technology made certain new and useful inventions and improvements for which I filed an international (PCT) application on June 29 2015, which application was assigned PCT application number PCT/US15/38337 and is entitled, THERMAL-ENERGY-DRIVEN MECHANICAL COMPRESSION HUMIDIFICATION-DEHUMIDIFICATION WATER PURIFICATION;

> AND WHEREAS, King Fahd University of Petroleum and Minerals, a university in Dhahran Saudi Arabia, is desirous of acquiring an undivided interest in the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefore;

> NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, I have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto the Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the application, all related provisionals and non-provisionals to which priority is claimed in this application or that claim priority to this application, divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted there from, and all relateds or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted there from; and all Letters Patent of foreign countries which may be granted there from; and all Letters Patent of the commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the Assignee, its successors and assigns.

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AND, for the consideration aforesaid, I do hereby agree that I and my executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to the Assignee, its successors and representatives all facts known to us relating to the improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in the Assignee, its successors or assigns the entire right, title and interest in and to the improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore, I covenant and agree with the Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by me. Docket No: mit-15761pet Serial Number (PCT/US15/38337 Filing Date (June 39, 2016 Page 3 of 3

IN TESTIMONY WHEREOF, I have hereunto set my hand this $\frac{2}{4}$ day of $\frac{4}{4}$

Amro M. Al-Qutub

STATE OF _____

COUNTY OF Soude Arabia

On this ______ day of ______, before me personally appeared Amro M. Al-Qutub to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

Notary Public

PATENT REEL: 042775 FRAME: 0882

RECORDED: 06/12/2017