PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Levi A. CAMPBELL	10/16/2012
Richard C. CHU	11/14/2012
Milnes P. DAVID	10/16/2012
Michael J. ELLSWORTH Jr.	10/22/2012
Madhusudan K. IYENGAR	10/17/2012
Robert E. SIMONS	10/16/2012

RECEIVING PARTY DATA

Name:	INTERNATIONAL BUSINESS MACHINES CORPORATION				
Street Address:	New Orchard Road				
City:	Armonk				
State/Country:	NEW YORK				
Postal Code:	10504				

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13676242

CORRESPONDENCE DATA

Fax Number: 5184525579

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

518-452-5600 Phone: Email: sdm@hrfmlaw.com Correspondent Name: Kevin P. Radigan, Esq.

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Address Line 2: 5 COLUMBIA CIRCLE ALBANY, NEW YORK 12203 Address Line 4:

ATTORNEY DOCKET NUMBER: POU920110098US2

REEL: 029294 FRAME: 0658

PATENT

502128210

NAME OF SUBMITTER: Kevin P. Radigan, Esq.					
This document serves as an Oath/Declaration (37 CFR 1.63).					
Total Attachments: 6 source=POU920110098US2_Assignment-S source=POU920110098US2_Assignment-S source=POU920110098US2_Assignment-S source=POU920110098US2_Assignment-S source=POU920110098US2_Assignment-S	statement#page2.tif statement#page3.tif statement#page4.tif				
source=POU920110098US2_Assignment-Statement#page6.tif					

PATENT REEL: 029294 FRAME: 0659

DECLARATION (37 C.F.R. 1.63) FOR UTILITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76) AND ASSIGNMENT

Title of Invention: HEAT SINK STRUCTURE WITH A VAPOR-PERMEABLE MEMBRANE FOR TWO-PHASE COOLING

As a below named inventor, I hereby declare that:

This decla	u a	tio	n is directed to the attached application, or (if following box is checked)
[]	United States application or PCT international application number filed on

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1.56.

Whereas, the undersigned inventor(s) has/have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the IBM Docket Number provided above in the header of this document;

Whereas, International Business Machines Corporation, a corporation of New York having a place of business at Armonk. New York (herein referred to as "IBM"), desires to acquire, and each undersigned inventor desires to grant to IBM, the entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to IBM (the "ASSIGNEE"), its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each undersigned inventor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to IBM. its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by IBM, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in IBM, its successors, legal representatives, and assigns, whenever requested by IBM, its successors, legal representatives, or assigns.

Page 1 of 2

IBM DOCKET NUMBER: POU920110098US2

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I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

(1) Legal Name of Inventor: Levi A. CAMPBELL	
Signature: 4 3 chol	Date: 10/16/12
(2) Legal Name of Inventor: Richard C. CHU	
Signature: (See Substitute Statement in Lieu of Oath or Declaration)	Date:
(3) Legal Name of Inventor: Milnes P. DAVID	
Signature:	Date: 10/16/12
(4) Legal Name of Inventor: Michael J. ELLSWORTH, Jr.	
Signature: Much fellows	Date: 10/22/2016
(5) Legal Name of Inventor: Madhusudan K. IYENGAR	
Signature:	Date:
(6) Legal Name of Inventor: Robert E. SIMONS	
Signature: RESimons	Date: 10/16/2012

Page 2 of 2

DECLARATION (37 C.F.R. 1.63) FOR UTILITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76) AND ASSIGNMENT

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This declaration	is directed to the attached application, or (if following box is checked):	
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Whereas, International Business Machines Corporation, a corporation of New York having a place of business at Armonk, New York (herein referred to as "IBM"), desires to acquire, and each undersigned inventor desires to grant to IBM, the entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to IBM (the "ASSIGNEE"), its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each undersigned inventor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to IBM, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by IBM, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in IBM, its successors, legal representatives, and assigns, whenever requested by IBM, its successors, legal representatives, or assigns.

Page 1 of 2

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to IBM and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants IBM, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

(1)	Legal Name of Inventor: Levi A. CAMPBELL	
	Signature:	Date
(2)	Legal Name of Inventor; Richard C. CHU	
	Signature: (See Substitute Statement in Lieu of Oath or Declaration)	Date:
(3)	Legal Name of Inventor: Milnes P. DAVID	
	Signature:	Date:
(4)	Legal Name of Inventor: Michael J. ELLSWORTH, Jr.	av.
	Signature:	Date:
(5)	Legal Name of Inventor: Madhusudan K. IYENGAR	
	Signature: 4. Lyloyfat. 8	Date: 0 17/2012
(6)	Legal Name of Inventor: Robert E. SIMONS	
	Signature:	Date:

Doc code: Oath

Document Description: Oath or declaration filed

PTO/AIA/02 (06-12) Approved for use through 01/31/2014. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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SUBSTITUTE STATEMENT IN LIEU OF AN OATH OR DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (35 U.S.C. 115(d) AND 37 CFR 1.64)

Title of Invention	TEM SING STRUCTURE WITE A VARIANTED IN WITHING TAKEN				
This stateme	nt is directed to:	*************************	•••••••••••••	***************************************	:
The atta	ached application,				
OR					
United 5	States application or PCT international	application numbe	er	filed	on
***************************************	ME of inventor to whom this sub			***************************************	•
(E.g., Given	Name (first and middle (if any)) and Fa				
	***************************************	Richard C.	CHU	******************************	
Residence (e	except for a deceased or legally incapa	icitated inventor):			***************************************
City		State	Cou	ntcv	
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City	***************************************	State		Zip	Country
I believe the in the app	above-named inventor or joint invento olication.	r to be the orígìnal	inventor or a	n original joint inve	ntor of a claimed invention
The above-identified application was made or authorized to be made by me.					
I hereby acknowledge that any willful false statement made in this statement is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.					
Relationship to the inventor to whom this substitute statement applies:					
Legal Representative (for deceased or legally incapacitated inventor only),					
Assignee,					
Person to whom the inventor is under an obligation to assign,					
Pe	rson who otherwise shows a sufficient	proprietary interes	st in the matte	er (petition under 3	7 CFR 1.46 is required), or
Joint Inventor.					

[Page 1 of 2]

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450, DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PATENT REEL: 029294 FRAME: 0664

SUBSTITUTE STATEMENT

Circumstances permitting execution of this substitute statement:						
Inventor is deceased.						
Inventor is under legal incapacity,						
Inventor cannot be found or reached aft	ter diligent effort, or					
Inventor has refused to execute the oati	h or declaration under 37 CF	FR 1,63.				
If there are joint inventors, please check the app	ropriate box below:					
An application data sheet under 37 CFF or is currently submitted.	R 1,76 (PTO/AIA/14 or equiv	alent) naming the entire	inventive entity has been			
OR						
An application data sheet under 37 CFF Statement Supplemental Sheet (PTO/A information is attached. See 37 CFR 1.6	NA/11 or equivalent) naming					
	WARNING:		***************************************			
Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.						
PERSON EXECUTING THIS SUBSTITUTE STATI	EMENT:					
Name: Kevin P. Radigan, Esq Reg.	No. 31789		//////-z Date (Optional):			
Signature: Kei P. Radige						
Residence (unless provided in an application data sheet, PTO/SB/14 or equivalent):						
_{City} Burnt Hills	Sity Burnt Hills State NY Country US					
Mailing Address (unless provided in an application data sheet, PTO/SB/14 or equivalent)						
HESLIN ROTHENBERG FARLEY & MESITI P.C. 5 COLUMBIA CIRCLE						
J COLOMBIA CINCLE						
_{City} Albany	State NY	Zip 12203	Country US			
Note: Use an additional PTO/AIA/02 form for each inventor who is deceased, legally incapacitated, cannot be found or reached after diligent effort, or has refused to execute the oath or declaration under 37 CFR 1.63.						

[Page 2 of 2]

RECORDED: 11/14/2012