506490432 02/05/2021

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
QINTAO ZHANG	10/03/2020
JUN-FENG LU	10/09/2020
TING CAI	10/19/2020
MA NING	10/19/2020
WEIYE HE	11/08/2020
JIAN KANG	10/10/2020

RECEIVING PARTY DATA

Name:	APPLIED MATERIALS, INC.
Street Address:	3050 BOWERS AVENUE
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95054

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17266415

CORRESPONDENCE DATA

Fax Number:

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.

Phone: 919-636-4767

Email: docketing@kdbfirm.com, Jholland@kdbfirm.com **Correspondent Name:** KDB PLLC - VARIAN AND APPLIED MATERIALS

Address Line 1: 2601 WESTON PARKWAY

Address Line 2: SUITE 103

Address Line 4: CARY, NORTH CAROLINA 27513

ATTORNEY DOCKET NUMBER:	44017936
NAME OF SUBMITTER:	JULIANNE HOLLAND
SIGNATURE:	/Julianne Holland/
DATE SIGNED:	02/05/2021

PATENT 506490432 REEL: 055165 FRAME: 0959

Total Attachments: 8 source=44017936_Assignments-ALL-signed#page1.tif source=44017936_Assignments-ALL-signed#page2.tif source=44017936_Assignments-ALL-signed#page3.tif source=44017936_Assignments-ALL-signed#page4.tif source=44017936_Assignments-ALL-signed#page5.tif source=44017936_Assignments-ALL-signed#page6.tif source=44017936_Assignments-ALL-signed#page7.tif source=44017936_Assignments-ALL-signed#page8.tif

PATENT REEL: 055165 FRAME: 0960 /V apply apply

ASSIGNMENT

WHEREAS, the undersigned, to wit:

Qintao Zhang Jun-Feng Lu Ting Cai Ma Ning Weiye He Jian Kang

(Hereinafter collectively **ASSIGNOR**), have/has made a certain new and useful invention as set forth in an application for United States Letters Patent, entitled:

METHOD FOR BEOL METAL TO DIELECTRIC ADHESION

(X OHI	y one).
(A)	which was executed concurrently herewith and is being filed herewith in the United
(B)	States Patent and Trademark Office; which was executed on, 20, and is being filed herewith in the United
	States Patent and Trademark Office;
(C)	
2020	

AND WHEREAS, Applied Materials, Inc., (hereinafter ASSIGNEE), a corporation organized and existing under the laws of the state of Delaware, and having its principal place of business at 3050 Bowers Avenue, Santa Clara, California, 95054, is desirous of acquiring the entire right, title, and interest in and to said invention and any and all patents that may be obtained therefore, and in and to said application and any and all patents that may issue therefrom;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNOR does hereby sell, assign, transfer, and set over unto said ASSIGNEE, its successors, assigns, and legal representatives, all right, title, and interest in and to said invention throughout the world, and any and all patents of the United States and foreign countries that may be obtained therefor, and in and to said application, including any and all continuations, continuations-in-part, divisionals, reissues, re-examinations, substitutions, and extensions thereof, and any and all patents of the United States and foreign countries that may issue therefrom, such right, title, and interest including the right to file applications and obtain patents, utility models, industrial models and designs for said invention in the name of said ASSIGNEE, its successors, assigns, and legal representatives throughout the world, including all rights of priority, all rights to publish cautionary notices reserving ownership of said invention, and all rights to register said invention in appropriate registries;

ASSIGNOR also does hereby covenant that it has the full right to convey the entire right, title, and interest herein assigned, and that it has not and will not execute any agreement in conflict herewith;

PATENT REEL: 055165 FRAME: 0961 ASSIGNOR also does hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all Letters Patent of the United States on said invention or resulting from said application, including any continuations, continuations-in-part, divisions, reissues, reexaminations, substitutions, and extensions thereof, to said ASSIGNEE, its successors, assigns, and legal representatives as the ASSIGNEE of the entire right, title, and interest herein assigned;

ASSIGNOR also does hereby agree to, at any time, upon request, without further or additional consideration, but at the expense of said ASSIGNEE, its successors, assigns, or legal representatives, execute and deliver any and all papers, make all rightful oaths, and do all lawful acts that may be necessary or desirable to perfect the entire right, title, and interest here assigned in said ASSIGNEE, its successors, assigns, and legal representatives, and generally do everything possible to vest the entire right, title and interest herein assigned in said ASSIGNEE, its successors, assigns, and legal representatives;

ASSIGNOR also does hereby agree to, at any time, upon request, without further or additional consideration, but at the expense of said ASSIGNEE, its successors, assigns, or legal representatives, execute and deliver any and all papers, make all rightful oaths, and do all lawful acts that may be necessary or desirable to make application for and obtain any and all continuations, continuations-in-part, divisions, reissues, re-examinations, substitutions, and extensions of said application, or any application on said invention, or any patent issuing therefor or therefrom;

ASSIGNOR also does hereby agree to, at any time, upon request, without further or additional consideration but at the expense of said ASSIGNEE, its successors, assigns, and legal representatives, communicate to said ASSIGNEE, its successors, assigns, and legal representatives, any known facts relating to said invention or said application or any patent issuing therefor or therefrom, and testify as to the same in any interference or other litigation proceeding when requested to do so, and aid said ASSIGNEE, its successors, assigns, and legal representatives, in obtaining and enforcing property protection for said invention in all countries;

ASSIGNOR also does hereby grant the Legal Department of Applied Materials, Inc., at the address shown above, the power to insert on this assignment any further information, including, but not limited to application number(s) and filing date(s), which may be necessary or desirable in order to comply with any rule or request of the United States Patent and Trademark Office for the purposes of recording this document.

ASSIGNOR also does now hereby execute this document on the date(s) indicated below:

10/3/2020	DocuSigned by: DF6310C583BF430
Date	Name: Qintao Zhang
Date	Name: Jun-Feng Lu
Date	Name: Ting Cai
Date	Name: Ma Ning
Date	Name: Weiye He
Date	Name: Jian Kang

Date	Name: Qintao Zhang
$\frac{2\cdot 2 \cdot 1/3}{\text{Date}}$	Jun-Feng Lu Name: Jun-Feng Ru
Date	Name: Ting Cai
Date	Name: Ma Ning
Date	Name: Weiye He
Date	Name: lian Kang

Date	Name: Qintao Zhang
Date	Name: Jun-Feng Lu
Oct 19, 2020 Date	Ting (ai Name: Hng Cai
Date	Name: Ma Ning
Date	Name: Weiye He
Date	Name: Jian Kang

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Date	Name: Qintao Zhang
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Date	Name: Jun-Feng Lu
Date	Name: Ting Cai
Ou. 1) ww	
Date	Name: Ma Ning
Date	Name: Weiye He
	Name: Jian Kang

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Date	Name: Qintao Zhang
Date	Name: Jun-Feng Lu
 Date	Name: Ting Cai
Date	Name: Ma Ning
020/11/08 Date	Weige He Name: Weige He
Date	Name: Jian Kang

Date	Name: Qintao Zhang
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Date	Name: Jun-Feng Lu
Date	Name: Ting Cai
Date	Name: Ma Ning
Date	Name: Weiye He
2020.10.10) 果 5 建
Date	Name: Jian Kang

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