506616832 04/19/2021

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
AYKUT AYDIN	11/09/2020
RUI CHENG	11/09/2020
YI YANG	01/08/2021
KRISHNA NITTALA	11/09/2020
KARTHIK JANAKIRAMAN	11/09/2020
BO QI	11/09/2020
ABHIJIT BASU MALLICK	11/09/2020

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:	17025009	

CORRESPONDENCE DATA

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Correspondent Name: KILPATRICK TOWNSEND & STOCKTON LLP Address Line 1: 1100 PEACHTREE STREET, SUITE 2800

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ATTORNEY DOCKET NUMBER:	80042-44018296US1-1192144
NAME OF SUBMITTER: RACHAEL MASCHKA	
SIGNATURE:	/Rachael Maschka/
DATE SIGNED:	04/19/2021

PATENT REEL: 055960 FRAME: 0006

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Total Attachments: 2

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PATENT REEL: 055960 FRAME: 0007 Attorney Docket No.: 080042-44018296US01-1192144

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

1)	Aykut Aydin Sunnyvale, CA	2)	Rui Cheng San Jose, CA
3)	Yi Yang San Jose, CA	4)	Krishna Nittala San Jose, CA
5)	Karthik Janakiraman San Jose, CA	6)	Bo Qi San Jose, CA
7)	Abhijit Basu Mallick Fremont, CA		

(hereinafter referred to as Assignors), have invented a certain invention entitled:

DOPING SEMICONDUCTOR FILMS

for which application for Letters Patent in the United States was filed on September 18, 2020, under Application No. 17/025,009, executed on even date herewith; and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

- 1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.
- 2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

PATENT REEL: 055960 FRAME: 0008

- 3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.
- 4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1)	November 9, 2020	DocuSigned by:
,	DATE	Aykut Aydin
		DocuSigned by:
2)	November 9, 2020	Rui Cheng
		46D792F7C44B475
	DATE	Rui Cheng
		DocuSigned by:
3)	7	yi yang
	January 8, 2021	F31C9AE7B2CB4CD
	DATE	Yi Yang
		DocuSigned by:
4)	Newsymbols 0 2020	krishna Mttala
	November 9, 2020	366CBBE37F474BF
	DATE	Krishna Nittala
		DocuSigned by:
		kartlik Janakiraman
5)	November 9, 2020	D213FD08BB7C433
ŕ	DATE	Karthik Janakiraman
		DocuSigned by:
6)		Bo a
	November 9, 2020	3F402DDB5DE1481
	DATE	Bo Qi
		DocuSigned by:
7)		Abhipit Basu Mallick
	November 9, 2020	0B4E4AAFCEB5455
	DATE	Abhijit Basu Mallick