PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4004596

NATURE OF CONVEYANCE.	
recorded KHALED	ve Assignment to correct the CONVEYING PARTIES previously on Reel 039346 Frame 0182. Assignor(s) hereby confirms the 2.5. AHMED 5/30/2013 PRABU GOPALRAJA 2/8/2013 ATIF 2/5/2013 MEI CHANG 2/5/2013.

CONVEYING PARTY DATA

Name	Execution Date
KHALED Z. AHMED	05/30/2013
PRABU GOPALRAJA	02/08/2013
ATIF NOORI	02/05/2013
MEI CHANG	02/05/2013

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:	14939202

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.

Email: Imurphy@dsiplaw.com
Correspondent Name: SERVILLA WHITNEY LLC
Address Line 1: 33 WOOD AVENUE SOUTH

Address Line 2: SUITE 830

Address Line 4: ISELIN, NEW JERSEY 08830

ATTORNEY DOCKET NUMBER: 017152/USAD01/MDP/MDP-ALD

NAME OF SUBMITTER: JEFFREY I. BLANKMAN

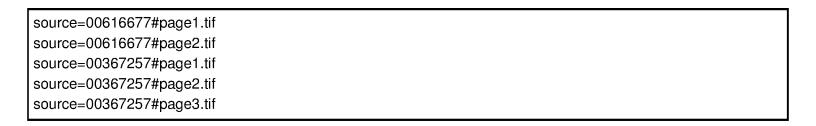
SIGNATURE: /Jeffrey I. Blankman, Reg. #57826/

DATE SIGNED: 08/12/2016

Total Attachments: 5

PATENT REEL: 039667 FRAME: 0432

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PATENT REEL: 039667 FRAME: 0433

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3993448

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date

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:	14939202

CORRESPONDENCE DATA

Fax Number:

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Email:

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SERVILLA WHITNEY LLC

Address Line 1:

33 WOOD AVENUE SOUTH

Address Line 2:

SUITE 830

Address Line 4:

ISELIN, NEW JERSEY 08830

ATTORNEY DOCKET NUMBER:	017152/USA/D01/MDP/MDP-AL
NAME OF SUBMITTER:	JEFFREY I. BLANKMAN
SIGNATURE:	/Jeffrey I. Blankman, Reg. #57826/
DATE SIGNED:	08/04/2016

Total Attachments: 2

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> PATENT REEL: 039667 FRAME: 0434

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors

1)	Khaled Z. Ahmed 2366 W. Broadway Anaheim, CA, 92804 United States of America
2)	Prabu Gopalraja 1305 Tea Rose Circle San Jose, CA, 95131 United States of America
3)	Atif Noori 13443 Ward Way Saratoga, CA, 95070 United States of America

3
Mei Chang
12881 Corte De Arguello
Saratoga, CA, 95070
United States of America

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

"Devices Including Metal-Silicon Contacts Using Indium Arsenide Films And Apparatus And Methods"

for which application for Letters Patent in the United States was filed on January 24, 2013,

under Serial No. 13748910, 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, CA, 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 the Application), and the invention disclosed therein (hereinafter referred to as the 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 the 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 therefore 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.
- 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)	5/30	, 2013	(INVENTOR) Khaled Z. Ahmed
2)	.	2013	(INVENTOR) Prabu Gopalraja
3)	:	2013	(INVENTOR) Atif Noori
4)		, 2013	(INVENTOR) Mei Chang

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

1)	, 2013	
		(INVENTOR) Khaled Z. Ahmed
2)	<u>Z_LS</u> 2013	(INVENTOR) Prabu Gopalraja
3)	2/5, 2013	(INVENTOR) AN NOOR
4)	, 2013	(INVENTOR) Mei Chang