505804845 12/05/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Hari Soundararajan	10/10/2019
Shou-Sung Chang	10/11/2019
Haosheng Wu	10/10/2019
Jianshe Tang	10/10/2019
Jeonghoon Oh	10/21/2019
Rajeev Bajaj	10/14/2019
Andrew Siordia	10/10/2019

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16448980

CORRESPONDENCE DATA

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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.

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ATTORNEY DOCKET NUMBER:	05542-1384001
NAME OF SUBMITTER:	MELISSA ANDERSEN
SIGNATURE:	/Melissa Andersen/
DATE SIGNED:	12/05/2019

505804845 PATENT REEL: 051188 FRAME: 0311

Total Attachments: 2

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PATENT REEL: 051188 FRAME: 0312

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

-	Hari Soundararajan
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	Sunnyvale, CA
	Shou-Sung Chang
	1553 Alison Ave
	Mountain View, CA 94040
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Jianshe Tang
6203 Lean Avenue
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Jeonghoon Oh
18372 Purdue Drive
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Rajeev Bajaj
43651 Skye Road
Fremont, CA 94539
Andrew Siordia
1254 Henderson Ave., Apt. 2
Sunnyvale, CA 94086

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

Temperature Control of Chemical Mechanical Polishing for which application for Letters Patent in the United States was filed on 6/21/2019, under Serial

No. 16/448,980, 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 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:

- 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;

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- (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.
- 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 Assignes on the dates indicated below.

Date:	Placho)	
,		HARI SOUNDARARAJAN
Date:	(0-11-201)	
		SHOU-SUNG CHANG
Date:	10/10/2019	Lasker Wh
Date:	10/10/2019	JIANSHE TANG
Date:	10/21/2019	<u> </u>
Date:	10/14/2013	JEONGHOON OH Liter Seign
		RAJEEV BAJA//
Date:	10/10/2019	
		ANDREW SIORDIA

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RECORDED: 12/05/2019