# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
Shih-Haur Shen	12/15/2017
Kun Xu	12/15/2017
Tzu-Yu Liu	12/15/2017

## **RECEIVING PARTY DATA**

Name:	APPLIED MATERIALS, INC.
Street Address: 3050 BOWERS AVENUE M/S 1269	
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95054

## **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15727288

## **CORRESPONDENCE DATA**

**Fax Number:** (877)769-7945

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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Email: Ruettimann@fr.com, apsi@fr.com

Correspondent Name: DAVID J. GOREN

**Address Line 1:** FISH & RICHARDSON P.C.

Address Line 2: P.O.BOX 1022

Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

ATTORNEY DOCKET NUMBER:	05542-0914001
NAME OF SUBMITTER:	JESSICA RUETTIMANN
SIGNATURE:	/Jessica Ruettimann/
DATE SIGNED:	12/19/2017

## **Total Attachments: 3**

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PATENT 504693961 REEL: 044430 FRAME: 0453

#### ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

-	Shih-Haur Shen
	530 La Conner Drive #31
:	Sunnyvale, CA 94087
	Kun Xu
	2828 Kilkare Road
	Sunol, CA 94586
	***************************************

Tzu-Yu Liu	
1387 Meadow	Ridge Cir.
San Jose, CA	95131

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

REAL TIME PROFILE CONTROL FOR CHEMICAL MECHANICAL POLISHING for which application for Letters Patent in the United States was filed on 10/6/2017, under Serial

No. 15/727,288, 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 Ciara, 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:

- 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.

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- 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.

	12/15/17	
		SHIH HAUR SHEN
Date:	12/15/17	Gr. Kun Xu
Date:		TZU-YU LIU

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

Date:		
		SHIH-HAUR SHEN
Date:		
	·	KUN XU
Date:	12/15/12	()
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**RECORDED: 12/19/2017**