505581132 07/19/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

SUBMISSION TYPE:NEW ASSIGNMENTNATURE OF CONVEYANCE:ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BO-YUN KIM	01/17/2019
KENJI TAKAI	01/25/2019
DO-YOON KIM	01/25/2019
SANG-KYUN KIM	01/17/2019
BO-UN YOON	01/25/2019

RECEIVING PARTY DATA

Name:	SAMSUNG ELECTRONICS CO., LTD.
Street Address:	129, SAMSUNG-RO, YEONGTONG-GU
City:	SUWON-SI, GYEONGGI-DO
State/Country:	KOREA, REPUBLIC OF
Postal Code:	16677

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16502164

CORRESPONDENCE DATA

Fax Number: (703)563-0600

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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Correspondent Name: MUIR PATENT LAW, PLLC

Address Line 1: P.O. BOX 1213

Address Line 4: GREAT FALLS, VIRGINIA 22066

ATTORNEY DOCKET NUMBER: SAM-56234

NAME OF SUBMITTER: ALYSA N. YOUNGSON

SIGNATURE: /Alysa N. Youngson/

DATE SIGNED: 07/19/2019

Total Attachments: 4

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PATENT REEL: 049807 FRAME: 0517

EPAS ID: PAT5627931

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> PATENT REEL: 049807 FRAME: 0518

COMBINED DECLARATION (37 CFR § 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM¹

The undersigned acknowledges that this document is being used both as an assignment of the invention and as the declaration (37 CFR § 1.63) for a Utility or Design Application.

WHEREAS, the undersigned, hereinafter referred to individually and collectively as Assignor, has invented:

Title:	SLURRY COMPOSITION FOR CHEMICAL MECHANICAL POLISHING, METHOD OF PREPARING THE SAME, AND METHOD OF FABRICATING SEMICONDUCTOR DEVICE BY USING THE SAME
for whice for pate	ch Assignor is about to make or has made United States or International application ent.
WHERE	AS, as a below named inventor(s), I/(we) hereby declare that:
	1. Declaration
This dec	slaration is directed to:
	The attached U.S. non-provisional patent application, or U.S. non-provisional patent application number, filed on
	PCT international patent application number 227024 filed on
The abo	ve-identified application was made or authorized to be made by me (us).
I (we) be	elieve that I am (we are) the original inventor (original joint inventors) of a claimed n in the above-identified application.
I (we) h punishal or both.	ereby acknowledge that any willful false statement made in this declaration is ole under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years,
I (we) h	ereby state that I (we) have reviewed and understand the contents of the above d application, including the claims.
l (we) ac material	knowledge that I (we) am (are) aware of the duty to disclose information which is to patentability as defined in 37 C.F.R. § 1.56.
¹ This form	ra requires the use of an Application Data Sheet.
SEC Ref N	lo. IE-201805-003-1-USO Attorney Ref No. SAM-56234

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM

Section II. Assignment

In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, the undersigned hereby sell(s) and assign(s) to

Samsung Electronics Co., Ltd.

having an address at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do 16677, Republic of Korea (hereinafter designated as the Assignee), the entire (100%) right, title and interest for the United States as defined in 35 U.S.C. § 100, in the invention described in the application identified in Section I of this document.

Assignor hereby confirms any prior assignment to Assignee, and to the extent that Assignor has not already done so, agrees to assign, and hereby does, sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the inventions as described in the aforesaid application, to the aforesaid application itself, and all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application, and any United States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforesaid application and the subject matter disclosed therein, these rights, title and interest to be held and enjoyed by Assignee to the full end of the term for which the Letters Patent, utility model, or other similar rights, are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to sue for, and recover for past infringements of, or liabilities for, any of the rights relating to any of the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation than that above set forth;

Assignor hereby covenants that no assignment, sale, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the United States Patent and Trademark Office to issue the Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue the Letters Patent, Utility Model Registration or other similar right to Assignee.

SEC Ref No.	IE-201805-003-1-US0	Attorney Ref No.	SAM-56234

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM

The undersigned hereby grant(s) the law firm of Muir Patent Law, PLLC the power to insert on this Declaration and Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

Section III. Inventor(s)/Assignor(s) Signature(s)

LEGAL NAME OF FIRST	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	KIM	Bo-yun	
			,
SIGNATURE	(A-2)	0.477	
21011471016		DATE	14. 01.11

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	TAKAI	Kenji	
	소재기발팅(변도체임)	25 S/11227024	
SIGNATURE	Kenji Takai	DATE	19, 1, 25

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
THIRD INVENTOR/ASSIGNOR	KIM	Do-yoon	
SIGNATURE _	. 2 m. Z	DATE	19. 1. 25

SEC Ref No. IE-201805-003-1-USO Attorney Ref No. SAM-56234

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FOURTH INVENTOR/ASSIGNOR	KIM	Sang-kyun	
	:		
SIGNATURE	Dr.	DATE	19. 1. 19.
/	.		

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
FIFTH INVENTOR/ASSIGNOR	YOON	Bo-un	
SIGNATURE	<u> 3 Vi You</u>	DATE	2019.1.25

소재개발팀(반도체연)/김보연/11227024

SEC Ref No.	IE-201805-003-1-US0	Attorney Ref No.	SAM-56234
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