PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TAE GON KIM	06/15/2020
SHIN AE JUN	06/15/2020
TAEK HOON KIM	06/15/2020
HYEYEON YANG	06/15/2020
NAYOUN WON	06/16/2020
JONGMIN LEE	06/15/2020
MIN HYE LIM	06/15/2020

RECEIVING PARTY DATA

Name:	SAMSUNG ELECTRONICS CO., LTD.
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City:	SUWON-SI, GYEONGGI-DO
State/Country:	KOREA, REPUBLIC OF
Postal Code:	16677

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16904664

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.

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Correspondent Name: CANTOR COLBURN LLP
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Address Line 4: HARTFORD, CONNECTICUT 06103

ATTORNEY DOCKET NUMBER:	PNK1988US
NAME OF SUBMITTER:	JOSEPH BARRERA
SIGNATURE:	/Joesph Barrera/
DATE SIGNED:	06/25/2020
	This document serves as an Oath/Declaration (37 CFR 1.63).

PATENT REEL: 053034 FRAME: 0641

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PATENT REEL: 053034 FRAME: 0642 PNK1988US OPP20183791US RK-201809-011-1-USO; LO-201902-176-1-USO

DECLARATION AND ASSIGNMENT

Title of Invention: QUANTUM DOTS, A COMPOSITION OR COMPOSITE INCLUDING THE SAME, AND AN ELECTRONIC DEVICE INCLUDING THE SAME

As a below named inventor, I hereby declare that:

This declaration is directed to:

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The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1.56.

Whereas, each undersigned inventor has made certain inventions, improvements, and discoveries (herein referred to as the "INVENTION") disclosed in the above-identified patent application (herein referred to as the ("APPLICATION");

Whereas, Samsung Electronics Co., Ltd., a corporation of Country of Korea having a place of business at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Republic of Korea (herein referred to as "ASSIGNEE"), desires to acquire, and each undersigned inventor desires to grant to ASSIGNEE, the entire worldwide right, title, and interest in and to the INVENTION and in and to any and all patent applications and patents directed thereto:

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor (herein referred to ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to the ASSIGNEE, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the INVENTION, the APPLICATION, and any and all other patent applications and patents for the INVENTION which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, continuations-in-part, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each undersigned inventor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the INVENTION, to ASSIGNEE, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by ASSIGNEE, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all

Page 1 of 2

18(209).6(6)149.9(1.38(36)(3)88)(3)+15881-5029-6(1507)(308

PATENT REEL: 053034 FRAME: 0643 PNK1988U5 OPP20183791US RK-201809-011-1-U50; LO-201902-176-1-U50

documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the INVENTION, the APPLICATION, and all related patents and applications, in ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by ASSIGNEE, its successors, legal representatives, and assigns.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

The undersigned hereby grant(s) the law firm of Cantor Colburn LLP 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.

Legal Name of Inventor: Tae Gon KIM	
Signature: LATH	Date: June 15, 2020
Legal Name of Inventor) Shin As JUN	15 0000
Signature: <u>J. 2 m. f. (m.</u>	Date: June 15, 2020
Legal Name of Inventor: Tack hoon KIM	T 15 - 000
Signature:	June 15, 2020
Legal Name of Inventor: Hyeyeon YANG	
Signature:	Date: June 15, 202
Legal Name of Inventor: Nayoun WON	
Signature:	Date:
Legal Name of Inventor: Jongmin LEE	
Signature: 22	Date: June 15, 2020
Legal Name of Inventor: Mi Hye LIM	
·	June 15. 202
Signature: 6 k wi	Date:

PNK1988US OPP20183791US RK-201809-011-1-US0; LO-201902-176-1-US0

DECLARATION AND ASSIGNMENT

Title of Invention: QUANTUM DOTS, A COMPOSITION OR COMPOSITE INCLUDING THE SAME, AND AN ELECTRONIC DEVICE INCLUDING THE SAME

As a below named inventor, I hereby declare that:

This declaration is directed to:

[X] the attached application (Attorney Docket Number PNK1988US) or
 [] United States application or PCT international application number filed on

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application,

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1.56.

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Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor (herein referred to ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to the ASSIGNEE, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the INVENTION, the APPLICATION, and any and all other patent applications and patents for the INVENTION which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, continuations-in-part, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each undersigned inventor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the INVENTION, to ASSIGNEE, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by ASSIGNEE, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all

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documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the INVENTION, the APPLICATION, and all related patents and applications, in ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by ASSIGNEE, its successors, legal representatives, and assigns.

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Legal Name of Inventor: Tae Gon KIM	
Signature:	Date:
Legal Name of Inventor: Shin Ae JUN	
Signature:	Date
Legal Name of Inventor: Tack hoon KIM	
Signature:	Date:
Legal Name of Inventor: Hyeyeon YANG	
Signature:	Date:
Legal Name of Inventor: Nayoun WON	
Signature: HUV	June 16, 2020 Date:
Legal Name of Inventor: Jongmin LEE	
Signature:	Date:
Legal Name of Inventor: Mi Hye LIM	
Signature:	Date:

Page 2 of 3