06/14/2019 505526263

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SEUNGHOON HAN	06/11/2019
BYUNGHOON NA	06/11/2019
BABAK MIRZAPOURBEINEKALAYE	06/04/2019
AMIR ARBABI	06/04/2019

RECEIVING PARTY DATA

Name:	SAMSUNG ELECTRONICS CO., LTD.	
Street Address:	129, SAMSUNG-RO, YEONGTONG-GU, GYEONGGI-DO	
City:	SUWON-SI	
State/Country:	KOREA, REPUBLIC OF	
Postal Code:	16677	
Name:	UNIVERSITY OF MASSACHUSETTS	
Street Address:	ONE BEACON STREET, 31ST FLOOR	
City:	BOSTON	
State/Country:	MASSACHUSETTS	
Postal Code:	02108	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16441661

CORRESPONDENCE DATA

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sughrue@sughrue.com, otimoshenko@sughrue.com Email:

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ATTORNEY DOCKET NUMBER:	Q246390
NAME OF SUBMITTER:	/OXANA TIMOSHENKO/

SIGNATURE:	/OXANA TIMOSHENKO/ (TEAMS DPT)	
DATE SIGNED:	06/14/2019	
This document serves as an Oath/Declaration (37 CFR 1.63).		

Total Attachments: 3

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Docket No.: Q246390 SAIT Ref.: RE2018070061US0 Only After Sept 16, 2012

ASSIGNMENT WITH DECLARATION FOR PATENT APPLICATION (37 CFR 1.63)

특허 출원 관련 양도 및 선언 (연방규칙집 제 37 조 1.63 항)

Korean Language Assignment with Declaration

이하 양도인으로 지칭되는 하기 서명 발명자인 본인(들)은 아래에 명시된출원에서서슬한특정개선을발명하였으므로그리고	Whereas, I/We, the undersigned inventor(s) hereinafter called assignor(s), have invented certain improvements described in the application identified below; and	
에 소재한 (양수인)는(은) 출원 및 발명의 그리고 이에 따라 획득될 일체의 미국 특허에 대한 모든 권리, 소유권 및 이권을 획득하기를 원하므로,	Whereas, <u>SAMSUNG ELECTRONICS CO., LTD. of 129</u> , <u>Samsung-ro. Yeongtong-gu, Suwon-si, Gyeonggi-do. 16677</u> , <u>Republic of Korea and UNIVERSITY OF MASSACHUSETTS of One Beacon Street, 31st Floor, Boston, MA, 02108, United States</u> , (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;	
이제 대가를 위한 그 수령을 인정합니다.	Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,	
상기 양도인인 본인(들)은 상기 명칭의 양수인, 그 승계자 및 그 양수인에게 모든 분할과 그 연속을 포함하여 미국 용으로 공개된 출원과 발명 그리고 그에 대해 승인될 수 있는 미국의 모든 특허증서와 미합증국 코드 제 35 장 제\$119 항에 의거한 우선권 청구권과 과거의 손해에 대한 소송권을 포함한, 개정된 파리 국제협약(1883)에 의거한 우선권을 포함한 모든 그 재발행과 모든 외국에 대한 전체권리, 소유권 및 이권을 판매, 양도 및 이전하며 그리고 본인(돌)은 출원서에 제시된 발명에 대해 승인된 일체의 특허증서를 양수인, 그 승계자 또는 그 양수인에게 발급하도록 미국 특허청장에게 요청하는 바이며 또한 본인(들)은 양수인이 본 발명에 대한 외국 특허증서를 신청할 수 있다는데 동의하며, 본인(들)은 양수인의 요청할 경우 미국 및 외국출원과 관련하여 양수인이 필요하다고 생각하는 모든 서류를 더이상의 보수없이서명날인할 것입니다.	I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, and all countries foreign thereto, including rights of priority under the International Convention of Paris (1883) as amended, including the right to claim priority under 35 USC 119 and the right to sue for past damages, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we hereby agree that the assignee may apply for foreign Letters Patent on the invention and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States and foreign applications when called upon to do so by the assignee.	
(공인은 기록을 위해 요구되지는 않지만 미합중국 코드 제 35 장 제§261 항에 의거 서명날인에 대한 일응의 증거입니다)	(Legalization not required for recording but is prima facie evidence of execution under 35 USC 261)	
본인은 아래 성명의 발명자로서 다음과 같이 선언합니다.	As the below named inventor, I hereby declare that:	
본양도및선언서는다음사항을위한것입니다.	This assignment with declaration is directed to:	
⊠ 첨부출원또는	∑ The attached application, or	
□ 미합중국출원또는 PCF 국제출원번호: 출원일:	United States Application or PCT International Application Number filed on	
본출원의 제목은다음과 같습니다.	The application is entitled:	
	METAMATERIAL-BASED REFLECTOR, OPTICAL CAVITY STRUCTURE INCLUDING THE SAME AND VERTICAL CAVITY SURFACE EMITTING LASER	

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Korean Language Assignment with Declaration

위에 표시된 출원은 본인이 신청하였거나 또는 신청하도록 허가를 반았습니다.

본인은, 본인이 본 출원에서 청구된 발명의 원 발명자 또는 원 공동 발명자라고 믿습니다.

본인은 본양도 및 선언서 제출과 관련된 출원의 내용을 검토하였으며 아울러 이해합니다.

본인은 연방규정 코드계 37 장계 1.56 항에 규정된 바에 따라, 특허성의 판단에 중요한 본인이 아는 모든 정보를 특허청에 공개할 의무가 있음을 알고 있습니다.

본 양도 및 선언서 내에 의도적 허위 진술이 있을 경우 미합중국 코드 제 18 장의 1001 항에 의거 벌금이나 5 년 이하의 경역 또는 두 가지 처벌을 모두받을 수 있음을 인정합니다. The above identified application was made or was 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 for which this assignment with declaration is being submitted.

I am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR 1.56.

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

STATEMENT OF ACCURATE TRANSLATION IN ACCORDANCE WITH 37 CFR 1.69(b):

The assignment with declaration is an accurate translation of the corresponding English language assignment with declaration.

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Signature

Date March 17, 2014

[Page 2]

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Family Name or Surname.			
498) MIRZAPOURIBEINEKALAYE			
Date			
99 6/4/2019			
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