

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT3552440

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
JINYONG JEON	09/03/2015
TAEJUNG YEO	09/03/2015
SEONG CHON CHOI	09/03/2015
SOON RYUNG LEE	09/03/2015
BONG YEON CHOI	09/03/2015
RECEIVING PARTY DATA	
Name:	SAMSUNG ELECTRONICS CO., LTD.
Street Address:	129, SAMSUNG-RO, YEONGTONG-GU, GYEONGGI-DO 443-742
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State/Country:	KOREA, REPUBLIC OF
Name:	RESEARCH & BUSINESS FOUNDATION SUNGKYUNKWAN UNIVERSITY
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City:	SUWON-SI
State/Country:	KOREA, REPUBLIC OF
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	14872696
CORRESPONDENCE DATA	
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ATTORNEY DOCKET NUMBER:	012052.1235
NAME OF SUBMITTER:	RANDALL S. SVIHLA
SIGNATURE:	/Randall S. Svihla/

PATENT

DATE SIGNED:	10/01/2015
Total Attachments: 6 source=NewApp_0120521235_CDASExecutedWithAppNumber#page1.tif source=NewApp_0120521235_CDASExecutedWithAppNumber#page2.tif source=NewApp_0120521235_CDASExecutedWithAppNumber#page3.tif source=NewApp_0120521235_CDASExecutedWithAppNumber#page4.tif source=NewApp_0120521235_CDASExecutedWithAppNumber#page5.tif source=NewApp_0120521235_CDASExecutedWithAppNumber#page6.tif	

DECLARATION

APPARATUS FOR CHARGING AND DISCHARGING BATTERY

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

I have reviewed and understand the contents of the above-identified 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 1.56, including for continuation-in-part applications, material information that became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

For valuable consideration, I, as a below-named assignor, hereby assign to:

Research & Business Foundation Sungkyunkwan University
Sungkyunkwan University
2066 Seobu-ro, Jangan-gu
Suwon-si, Gyeonggi-do 440-746
Republic of Korea

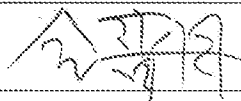
I authorize and request the attorneys appointed in the above-identified application to hereafter complete this Assignment by inserting above the application number and the filing date of the above-identified application when known, and to correct any typographical errors that may be discovered in this Assignment.

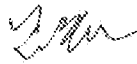
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COMBINED DECLARATION AND ASSIGNMENT UNDER 37 CFR 1.63(e)

application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and I authorize the Assignees to apply in all countries in my name or in their own names for patents, utility models, design registrations, like rights of exclusion, and inventors' certificates for any of the inventions and improvements that are the subject of the above-identified application; and I agree for myself and my heirs, legal representatives, and assigns without further compensation to perform such lawful acts and to sign such further applications, Assignments, preliminary statements, and other lawful documents as the Assignees may reasonably request to effectuate fully this Assignment.

In witness whereof, I, as a below-named inventor and assignor, intending to be legally bound, have hereunto affixed my signature on the date indicated below next to my signature.

Inventor's Legal Name	Jinyong JEON		
Inventor's Signature		Date	September 3, 2015
Residence (City, Country)	Yongin-si, Republic of Korea		
Mailing Address	Samsung Advanced Institute of Technology, 130, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-803, Republic of Korea		

Inventor's Legal Name	Taejung YEO		
Inventor's Signature		Date	September 3, 2015
Residence (City, Country)	Yongin-si, Republic of Korea		
Mailing Address	Samsung Advanced Institute of Technology, 130, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-803, Republic of Korea		

Inventor's Legal Name	Seong Chon CHOI		
Inventor's Signature		Date	
Residence (City, Country)	Namyangju-si, Republic of Korea		
Mailing Address	Sungkyunkwan University, 2066 Seobu-ro, Jangan-gu, Suwon-si, Gyeonggi-do 440-746 Republic of Korea		

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Inventor's Legal Name	Soon Ryung LEE		
Inventor's Signature		Date	
Residence (City, Country)	Anyang-si, Republic of Korea		
Mailing Address	Sungkyunkwan University, 2066 Seobu-ro, Jangan-gu, Suwon-si, Gyeonggi-do 440-746, Republic of Korea		

Inventor's Legal Name	Bong Yeon CHOI		
Inventor's Signature		Date	
Residence (City, Country)	Yongin-si, Republic of Korea		
Mailing Address	Sungkyunkwan University, 2066 Seobu-ro, Jangan-gu, Suwon-si, Gyeonggi-do 440-746, Republic of Korea		

COMBINED DECLARATION AND ASSIGNMENT UNDER 37 CFR 1.63(e)

DECLARATION

As a below-named inventor, I hereby declare that this declaration is directed to the application attached hereto, or to United States Application Number or PCT International Application Number _____ filed on _____ (if applicable), entitled:

APPARATUS FOR CHARGING AND DISCHARGING BATTERY

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

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

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

I have reviewed and understand the contents of the above-identified 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 1.56, including for continuation-in-part applications, material information that became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

ASSIGNMENT

For valuable consideration, I, as a below-named assignor, hereby assign to:

Samsung Electronics Co., Ltd.
129, Samsung-ro, Yeongtong-gu
Suwon-si, Gyeonggi-do 443-742
Republic of Korea

Research & Business Foundation Sungkyunkwan University
Sungkyunkwan University
2066 Seobu-ro, Jangan-gu
Suwon-si, Gyeonggi-do 440-746
Republic of Korea

and their successors and assigns (collectively hereinafter called "the Assignees"), the entire right, title, and interest throughout the world in the inventions and improvements that are the subject of the application identified in the above declaration, which is United States Application Number or PCT International Application Number 14/872,696 filed on October 1, 2015.

I authorize and request the attorneys appointed in the above-identified application to hereafter complete this Assignment by inserting above the application number and the filing date of the above-identified application when known, and to correct any typographical errors that may be discovered in this Assignment.

This Assignment includes the above-identified application, any and all United States and foreign patents, utility models, and design registrations granted for any of the inventions and improvements that are the subject of the above-identified application, and the right to claim priority based on the filing date of the above-identified


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application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and I authorize the Assignees to apply in all countries in my name or in their own names for patents, utility models, design registrations, like rights of exclusion, and inventors' certificates for any of the inventions and improvements that are the subject of the above-identified application; and I agree for myself and my heirs, legal representatives, and assigns without further compensation to perform such lawful acts and to sign such further applications, Assignments, preliminary statements, and other lawful documents as the Assignees may reasonably request to effectuate fully this Assignment.


In witness whereof, I, as a below-named inventor and assignor, intending to be legally bound, have hereunto affixed my signature on the date indicated below next to my signature.


Inventor's Legal Name	Jinyong JEON		
Inventor's Signature		Date	
Residence (City, Country)	Yongin-si, Republic of Korea		
Mailing Address	Samsung Advanced Institute of Technology, 130, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-803, Republic of Korea		

Inventor's Legal Name	Taejung YEO		
Inventor's Signature		Date	
Residence (City, Country)	Yongin-si, Republic of Korea		
Mailing Address	Samsung Advanced Institute of Technology, 130, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-803, Republic of Korea		

Inventor's Legal Name	Seong Chon CHOI		
Inventor's Signature		Date	September 3, 2015
Residence (City, Country)	Namyangju-si, Republic of Korea		
Mailing Address	Sungkyunkwan University, 2066 Seobu-ro, Jangan-gu, Suwon-si, Gyeonggi-do 440-746, Republic of Korea		

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Inventor's Legal Name	Soon Ryung LEE		
Inventor's Signature		Date	September 3, 2015
Residence (City, Country)	Anyang-si, Republic of Korea		
Mailing Address	Sungkyunkwan University, 2066 Seobu-ro, Jangan-gu, Suwon-si, Gyeonggi-do 440-746, Republic of Korea		

Inventor's Legal Name	Bong Yeon CHOI		
Inventor's Signature		Date	September 3, 2015
Residence (City, Country)	Yongin-si, Republic of Korea		
Mailing Address	Sungkyunkwan University, 2066 Seobu-ro, Jangan-gu, Suwon-si, Gyeonggi-do 440-746, Republic of Korea		