503739578 03/16/2016

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TORU YUMOTO	02/10/2016
TOSHIYUKI HIRANO	02/12/2016
TAKAHIRO SAWAMURA	02/16/2016
AKIRA WATANABE	02/02/2016

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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15022317

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PATENT REEL: 037998 FRAME: 0451 503739578

SIGNATURE:	/Mary Jane Boswell/	
DATE SIGNED:	03/16/2016	
Total Attachments: 4		
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PATENT REEL: 037998 FRAME: 0452

ASSIGNMENT

WHEREAS WE, the below named inventors, (hereinafter referred to as "Assignors"), have made an invention entitled:

SOLAR CELL, MANUFACTURING METHOD THEREFOR, SEMICONDUCTOR DEVICE, AND MANUFACTURING METHOD THEREFOR

for which WE filed an application for United States Letters Patent on	, (Application No); and
WHEREAS, ASAHI KASEI KABUSHIKI KAISHA and TOHOKU UNIVERSITY , whose pochiyoda-ku, Tokyo 101-8101 Japan , and 1-1 , Katahira 2-chome , Aoba-ku , Sendai as "Assignee") is desirous of securing the entire right, title, and interest in and to and in and to the application of United States Letters Patent on this invention and application;	i-shi,Miyagi 980-8577 Japan (h this invention in all countries ti	ereinafter referred to hroughout the world,

NOW THEREFORE, be it known that, for good and valuable consideration the receipt of which from Assignee is hereby acknowledged, WE, as assignors, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, OUR entire right, title, and interest in and to this invention and this application, and all divisions, and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues thereof, and all rights to claim priority on the basis of such applications, and all applications for Letters Patent which may hereafter be filed for this invention in any foreign country and all Letters Patent which may be granted on this invention in any foreign country, and all extensions, renewals, and reissues thereof; and WE hereby authorize and request the Director of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent of this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, WE HEREBY covenant that WE have the full right to convey the interest assigned by this Assignment, and WE have not executed and will not execute any agreement in conflict with this Assignment;

AND, WE HEREBY further covenant and agree that WE will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to US respecting this invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

IN TESTIMONY WHEREOF, WE have hereunto set my hands.

Full Name of first Assignor	Toru YUMOTO
Address	1-105, Kanda Jinbocho, Chiyoda-ku, Tokyo 101-8101 Japan
Signature	Joru Yumoto
Date	February 10, 2016
Full Name of second Assignor	Toshiyuki HIRANO
Address	1-105, Kanda Jinbocho, Chiyoda-ku, Tokyo 101-8101 Japan
Signature	Tochyuli Hirano
Date	Feb. 12 2016

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Full Name of third Assignor	Takahiro SAWAMURA	
Address	1-105, Kanda Jinbocho, Chiyoda-ku, Tokyo 101-8101 Japan	
Signature	Takahiro Sawamura	
Date	Fet. 16, 2016	
Full Name of fourth Assignor	Akira WATANABE	
Address	c/o TOHOKU UNIVERSITY,1-1, Katahira 2-chome, Aoba-ku, Sendai-shi, Miyagi 980-8577 Japan	
Signature		
Date		

ASSIGNMENT

WHEREAS WE, the below named inventors, (hereinafter referred to as "Assignors"), have made an invention entitled:

SOLAR CELL, MANUFACTURING METHOD THEREFOR, SEMICONDUCTOR DEVICE, AND MANUFACTURING METHOD THEREFOR

for which WE filed an application for Un	ited States Letters Patent on	(Application No); and
WHEREAS, ASAHI KASEI KABUSHIKI KAIS Chiyoda-ku, Tokyo 101-8101 Japan ,and as "Assignee") is desirous of securing the and in and to the application of United S application;	l 1-1, Katahira 2-chome, Aoba-ku, Se e entire right, title, and interest in an	endal-shi,Miyagi 980-8577 Japan (h d to this invention in all countries (nereinafter referred to throughout the world,
NOW THEREFORE, be it known acknowledged, WE, as assignors, have so unto the Assignee, its lawful successors and all divisions, and continuations ther reissues thereof, and all rights to claim phereafter be filed for this invention in a foreign country, and all extensions, rene and Trademarks of the United States and described above, to issue all Letters Pate this Assignment;	and assigns, OUR entire right, title, a eof, and all Letters Patent of the Unit priority on the basis of such application my foreign country and all Letters Patewals, and reissues thereof; and WE followed to the country of the coun	er, and do hereby sell, assign, tran- nd interest in and to this invention ted States which may be granted th ons, and all applications for Letters ent which may be granted on this in hereby authorize and request the E whose duty it is to issue patents on	sfer, and set over and this application, nereon, and all Patent which may nvention in any Director of Patents applications as
AND, WE HEREBY covenant that executed and will not execute any agree	It WE have the full right to convey the ement in conflict with this Assignmen		ent, and WE have not
AND, WE HEREBY further cover successors and assigns, any facts known when called upon to do so, execute and invention in said Assignee, its successors oaths and generally do everything possi protection for this invention in the Unite execution of such papers shall be borne	deliver any and all papers that may less or assigns, execute all divisional, couble to aid Assignee, its successors and additional states and any foreign country, it	testify in any legal proceeding, signobe necessary or desirable to perfect thinuation, and reissue application di assigns, to obtain and enforce probeing understood that any expensi	n all lawful papers It the title to this s, make all rightful oper patent
IN TESTIMONY WHEREOF, WE	have hereunto set my hands.		
Full Name of first Assignor	Toru YUMOTO		
Address	1-105, Kanda Jinbocho, Chiyoda-ku	, Tokyo 101-8101 Japan	
Signature			
Date		AAAAANIN XXX	
Full Name of second Assignor	Toshiyuki HIRANO		
Address	1-105, Kanda Jinbocho, Chiyoda-ku	, Tokyo 101-8101 Japan	

Morgan, Lewis & Bockius LLP

Signature

Date

Full Name of third Assignor	Takahiro SAWAMURA
Address	1-105, Kanda Jinbocho, Chiyoda-ku, Tokyo 101-8101 Japan
Signature	
Date	
Full Name of fourth Assignor	Akira WATANABE
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Signature	Shire Midawale
Date	Fab. 2, 2016

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