504560198 09/22/2017

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4606909

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TOSHIHIKO UTO	08/25/2017
TAKASHI SUEZAKI	08/25/2017
WATARU YOSHIDA	08/25/2017

RECEIVING PARTY DATA

Name:	KANEKA CORPORATION
Street Address:	3-18, NAKANOSHIMA 2-CHOME, KITA-KU
City:	OSAKA-SHI, OSAKA
State/Country:	JAPAN
Postal Code:	5308288

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15560596

CORRESPONDENCE DATA

Fax Number: (703)518-5499

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.

Phone: 7036841111

Email: yshgroup@ipfirm.com HAUPTMAN HAM, LLP **Correspondent Name:** Address Line 1: 2318 MILL ROAD

Address Line 2: **SUITE 1400**

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	5820-0007
NAME OF SUBMITTER:	YOON S. HAM
SIGNATURE:	/Yoon S. Ham/
DATE SIGNED:	09/22/2017

Total Attachments: 3

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> **PATENT** REEL: 043661 FRAME: 0791 504560198

Docket No.: 5820-0007

ASSIGNMENT

	,	ASSIG	ININATE NA E
sufficie	In consideration of the premises and other new of which is hereby acknowledged, the t		and valuable consideration in hand paid, the receipt and ned,
	1) UTO, Toshihiko	2)	SUEZAKI, Takashi
	3) YOSHIDA, Wataru	4)	
	5)		x box if continued on page 2
CORPG 530828	ORATION having a place of business	at 3-18 inafter o	, hereby sells, assigns and transfers unto KANEKA, Nakanoshima 2-chome, Kita-ku, Osaka-shi, Osaka lesignated "ASSIGNEE") the entire right, title and interest 100 in the invention entitled:
ME	METHOD FOR MANUFACTURING	CRYS	LINE SILICON SUBSTRATE FOR SOLAR CELL, TALLINE SILICON SOLAR CELL, AND METHOD ILLINE SILICON SOLAR CELL MODULE
(a)	for which an application for United States United States Patent Application No	Letters	Patent was filed on, and identified by; or
(b)	for which an application for United States	Letters	Patent was executed on
issue ar reissues Conven success	ry and all United States Letters Patent whi s, continuations, or continuations-in-part tion for the Protection of Industrial Prot	ich may thereo perty to	United States Commissioner of Patents and Trademarks to be granted therefore and any and all extensions, divisions, f, and the right to all benefits under the International the said ASSIGNEE, for its interest as ASSIGNEE, its gned agrees that the attorneys of record in said application
request and to a	tion for and obtaining original, divisional of the said ASSIGNEE, its successors, ass any improvements, and applications for pa	l, reissu igns an tent bas L, its suc	like interest, and to render all necessary assistance in making sed or extended Letters Patent of the United States, upon d legal representatives, and without further remuneration, in sed thereon, growing out of or related to the said invention; accessors, assigns and legal representatives, deemed essential ation hereby transferred.
SIGNE	D on the date indicated aside my signature:		
			August 25, 2017
1)/ Name	UTO, Toshihiko		Date
2)	e: SUEZAKI, Takashi		
PRIBE	s. OOERANI, Takasiii		<i>⊾</i> en∙
3) Name	e: YOSHIDA, Wataru		Date

Date

4) ____ Name:

Docket No.: 5820-0007

ASSIGNMENT

In	consideration	of the	premises	and	other	good	and	valuable	consideration	in	hand	paid,	the	receipt	and
sufficiency	of which is he	ereby ac	cknowledg	ged, t	he un	dersig	ned,								

3) UTO, Toshihiko) YOSHIDA, Wataru	2) 4)	SUEZAKI, Takashi
5	5)		x box if continued on page 2
CORPOR 5308288,	ATION having a place of business	at 3-18 inafter o	t, hereby sells, assigns and transfers unto KANEKA 8, Nakanoshima 2-chome, Kita-ku, Osaka-shi, Osaka designated "ASSIGNEE") the entire right, title and interest 100 in the invention entitled:
	IETHOD FOR MANUFACTURING	CRYS	LINE SILICON SUBSTRATE FOR SOLAR CELL, TALLINE SILICON SOLAR CELL, AND METHOD MLLINE SILICON SOLAR CELL MODULE
	which an application for United States nited States Patent Application No		Patent was filed on, and identified by; or
(b) for	which an application for United States	Letters l	Patent was executed on,
issue any a reissues, c Convention successors, shall herea	and all United States Letters Patent whit continuations, or continuations-in-part in for the Protection of Industrial Prop. assigns and legal representatives; the fter act on behalf of said ASSIGNEE;	ch may thereof erty to undersig	United States Commissioner of Patents and Trademarks to be granted therefore and any and all extensions, divisions, f, and the right to all benefits under the International the said ASSIGNEE, for its interest as ASSIGNEE, its greed agrees that the attorneys of record in said application like interest, and to render all necessary assistance in making
application request of a and to any and to exec to ASSIGN	for and obtaining original, divisional the said ASSIGNEE, its successors, ass improvements, and applications for pa-	, reissue igns and ent base , its suc	ed or extended Letters Patent of the United States, upon I legal representatives, and without further remuneration, in ed thereon, growing out of or related to the said invention; cessors, assigns and legal representatives, deemed essential
1)			
Name: U	TO, Toshihiko		Date
2) Tal	each Suezaki UEZAKI, Takashi		August 25, 2017
Name: S	UEZAKI, Takashi		Date
3) Name: Y	OSHIDA, Wataru		Date

Date

PATENT REEL: 043661 FRAME: 0793

Docket No.: 5820-0007

ASSIGNMENT

In consideration of the premises and other good and valuable consideration in hand paid, the receipt and sufficiency of which is hereby acknowledged, the undersigned,

				CANADA CANADA SA A A A	
	i) UTO, Tos		2)	SUEZAKI, Takashi	
	3) YOSHIDA	A, Wataru	4) ;	E - 26 20 20 20 20	
	5)			x box if continued on page 2	
COR 5308.	PORATION havi 288, Japan, its suc	ng a place of busin cessors and assigns (ness at 3-18 hereinafter o	, hereby sells, assigns and transfers unto i, Nakanoshima 2-chome, Kita-ku, Osaka lesignated "ASSIGNEE") the entire right, title 100 in the invention entitled:	-shi, Osaka
M	METHOD FO	R MANUFACTUR	ING CRYS	.ine silicon substrate for solai talline silicon solar cell, and .lline silicon solar cell modui	METHOD
(a)		lication for United Statent Application No.		Patent was filed on, and, and	identified by
(b)	for which an app	lication for United St	ates Letters	Patent was executed on	
Convesuoce shall applicated applicated and to and to	ention for the Protessors, assigns and I hereafter act on beh AND the understation for and obtast of the said ASSI of any improvement a execute any paper	ection of Industrial egal representatives; alf of said ASSIGNE gned hereby agrees the ining original, division of the said ASSIGNE, its successors, and applications for the said ASSIGNE.	Property to the undersig E; o transfer a l onal; reissus , assigns and or patent base NEE, its suc	; and the right to all benefits under the the said ASSIGNEE, for its interest as AS med agrees that the attorneys of record in said the interest, and to render all necessary assistant of or extended Letters Patent of the United I legal representatives, and without further remoded thereon, growing out of or related to the said cessors, assigns and legal representatives, deer tion hereby transferred.	SIGNEE, its d application ce in making States, upon uncration, in id invention;
SIGN	ED on the date indi	cated aside my signal	mre:		
1)	V 102122 (20) 1 2 2 5 2 5 2 5 2 5 2 5 2 5 2 5 2 5 2 5	3		73-4	
Nan	ie: UTO, Toshihik	3		Date	
2) Nan	ne: SUEZAKI, Tak	ashi		Date	
1 16.77					
3)	Wataru	Yoshida		August 25, 2017	
Nan	ie: YOSHIDA, Wa			Date	
4)					
Nan	38:			Date	

PATENT REEL: 043661 FRAME: 0794

RECORDED: 09/22/2017