PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2784325

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MASATO TERASAKI	03/20/2014
NAONORI AKAE	03/20/2014
HIDEKI HORITA	03/20/2014

RECEIVING PARTY DATA

Name:	Hitachi Kokusai Electric Inc.
Street Address:	14-1, Sotokanda 4-chome
Internal Address:	Chiyoda-ku
City:	Tokyo
State/Country:	JAPAN
Postal Code:	1018980

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14223132

CORRESPONDENCE DATA

Fax Number: (215)568-6499

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via

US Mail.

Phone: 215-568-6400 Email: jheuer@vklaw.com

Correspondent Name: VOLPE AND KOENIG, P.C. Address Line 1: 30 SOUTH 17TH STREET

Address Line 2: UNITED PLAZA

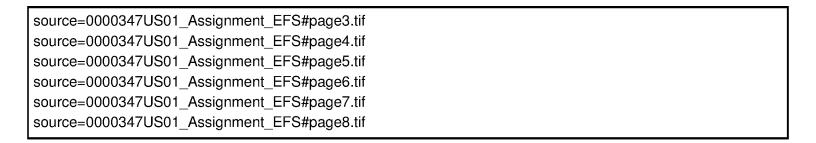
Address Line 4: PHILADELPHIA, PENNSYLVANIA 19103

ATTORNEY DOCKET NUMBER:	HITACHI12-0000347US01
NAME OF SUBMITTER:	KEIKO KIMURA MIDDLETON
SIGNATURE:	/Keiko Kimura Middleton/
DATE SIGNED:	03/25/2014

Total Attachments: 8

source=0000347US01_Assignment_EFS#page1.tif source=0000347US01_Assignment_EFS#page2.tif

PATENT 502737721 REEL: 032520 FRAME: 0716



PATENT REEL: 032520 FRAME: 0717

COMBINED DECLARATION AND ASSIGNMENT

With respect to the invention titled

CLEANING	METHOD.	METHOD	OF	MANU	FACTURING
SEMICONDUCT	OR DEVICE,	SUBSTRATE	PROC	ESSING	<u>APPARATUS</u>
AND NON-TRAI	NSITORY COM	PUTER-READ	BLE R	ECORDIN	NG MEDIUM,
		title			

the undersigned has authorized the application attached hereto. If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:

United States Application No.: 14/223, 132 filed on March 24, 2014

I state and declare the following.

DECLARATION

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 above-identified application, including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56.

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 5 years, or both.

ASSIGNMENT

The undersigned hereby authorizes assignee or assignee's representative to insert the Application Number and the filing date of this application if they are unknown at the time of execution of this assignment.

Assignee	HITACHI KOKUSAI ELECTRIC INC.			
Assignee State or Country of Incorporation	Japan			
Assignee Address	14-1, Sotokanda 4-chome, Chiyoda-ku, Tokyo 1018980, Japan			

Assignee is desirous of acquiring the entire right, title and interest in the invention, all applications for and all letters patent issued on the invention.

For good and valuable consideration, the receipt and sufficiency of which is acknowledged, the undersigned, intending to be legally bound, does hereby sell, assign and transfer to the assignee and assignee's successors, assigns and legal representatives the entire right, title and interest in the invention and all patent applications thereon, including, but not limited to, the application for United States Letters Patent entitled as above, and all divisions and continuations thereof, and in all letters patent, including all reissues and reexaminations thereof, throughout the world, including the right to claim priority under the Paris Convention or other treaty.

It is agreed that the undersigned shall be legally bound, upon request of the assignee, to supply all information and evidence relating to the making and practice of the invention, to testify in any legal proceeding relating thereto, to execute all instruments proper to patent the invention throughout the world for the benefit of the assignee, and to execute all instruments proper to carry out the intent of this instrument.

The undersigned warrants that the rights and property herein conveyed are free and clear of any encumbrance.

This Assignment may be executed in multiple counterparts, each of which shall be deemed to be an original of this Assignment. Additionally, the undersigned hereby authorizes our attorneys to collect the signature pages of each executed counterpart and to attach those signature pages to a single copy of this instrument, which single copy and attached signature pages together shall constitute an original of this Assignment.

SIGNATURE SHEET FOR DECLARATION AND ASSIGNMENT

Inventor's Name	Masato TERASAKI	
Inventor's Signature	Hasato TERASAKI	
Date .	March 20, 2014	
Signed at	Toyama, Japan (City and Country)	
	GNATURE SHEET FOR RATION AND ASSIGNMENT	
Inventor's Name	Naonori AKAE	•••
Inventor's Signature		•••
Date .		••••
Signed at	Toyama, Japan (City and Country)	
	GNATURE SHEET FOR	
DECLA	RATION AND ASSIGNMENT	
Inventor's Name	Hideki HORITA	
Inventor's Signature	Hideki HORITA	••••
Date .	March 20, 2014	
Signed at	Toyama, Japan	
•	(City and Country)	

COMBINED DECLARATION AND ASSIGNMENT

With respect to the invention titled

CLEANING	METHOD,	METHOD	OF	MANI	<u>JFACTU</u>	IRING
SEMICONDUCT	OR DEVICE.	SUBSTRATE	PROCE	SSING	APPAR	ATUS
AND NON-TRAI	NSITORY COM	PUTER-READA	ABLE RI	ECORDI	NG MEI	OIUM,
		title				
the undersigned l	nas authorized th	e application att	ached he	reto. If th	ie applica	ıtion is
not attached here	to, the applicatio	n is as identified	by the at	torney do	cket nun	aber as
set forth above an	nd/or the followin	g:				
United States Ap	plication No.:	filed	on March	24, 2014		
Tetata and	declare the follow	สทั้งจาก				

DECLARATION

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 above-identified application, including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56.

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 5 years, or both.

ASSIGNMENT

The undersigned hereby authorizes assignee or assignee's representative to insert the Application Number and the filing date of this application if they are unknown at the time of execution of this assignment.

Assignee	HITACHI KOKUSAI ELECTRIC INC.
Assignee State or Country of Incorporation	Japan
Assignee Address	14-1, Sotokanda 4-chome, Chiyoda-ku, Tokyo 1018980, Japan

Assignee is desirous of acquiring the entire right, title and interest in the invention, all applications for and all letters patent issued on the invention.

For good and valuable consideration, the receipt and sufficiency of which is acknowledged, the undersigned, intending to be legally bound, does hereby sell, assign and transfer to the assignee and assignee's successors, assigns and legal représentatives the entire right, title and interest in the invention and all patent applications thereon, including, but not limited to, the application for United States Letters Patent entitled as above, and all divisions and continuations thereof, and in all letters patent, including all reissues and reexaminations thereof, throughout the world, including the right to claim priority under the Paris Convention or other treaty.

It is agreed that the undersigned shall be legally bound, upon request of the assignee, to supply all information and evidence relating to the making and practice of the invention, to testify in any legal proceeding relating thereto, to execute all instruments proper to patent the invention throughout the world for the benefit of the assignee, and to execute all instruments proper to carry out the intent of this instrument.

The undersigned warrants that the rights and property herein conveyed are free and clear of any encumbrance.

This Assignment may be executed in multiple counterparts, each of which shall be deemed to be an original of this Assignment. Additionally, the undersigned hereby authorizes our attorneys to collect the signature pages of each executed counterpart and to attach those signature pages to a single copy of this instrument, which single copy and attached signature pages together shall constitute an original of this Assignment.

SIGNATURE SHEET FOR DECLARATION AND ASSIGNMENT

Inventor's Name	Masato TERASAKI	
Inventor's Signature		
Date		•••
Signed at	Toyama, Japan	
	(City and Country)	
•	GNATURE SHEET FOR RATION AND ASSIGNMENT	
Inventor's Name	Naonori AKAE	•••
Inventor's Signature	Naonori AKAE	
Date	March 20, 2014	
Signed at	Toyama, Japan	
	(City and Country)	
*	GNATURE SHEET FOR RATION AND ASSIGNMENT	
Inventor's Name	Hideki HORITA	
Inventor's Signature		
Date		
Signed at	Toyama, Japan (City and Country)	•••

4