# 505417504 04/09/2019

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5464294

SUBMISSION TYPE:		NEW ASSIGNMENT						
NATURE OF CONVEYA	NCE:	ASSIGNMENT	ASSIGNMENT					
CONVEYING PARTY D	ΑΤΑ							
		Name	Execution Date					
TETSUMASA TAKAICH			01/15/2019					
SHUNJI KAWATO			01/15/2019					
MASATO SUZUKI			01/15/2019					
KAZUMICHI AKASHI			01/15/2019					
TOMOHIDE KATAYAMA	4		01/15/2019					
RECEIVING PARTY DA	TA							
Name:	AZ ELE	CTRONIC MATERIALS (LUXEMBOURG	G) S.A.R.L.					
Street Address:	46 PLA	CE GUILLAUME II						
City:	LUXEM	LUXEMBOURG						
State/Country:	LUXEM	BOURG						
Postal Code:	1648		1648					
	Total: 1							
PROPERTY NUMBERS Property Type	Total: 1	Number						
		<b>Number</b> 16340413						
Property Type Application Number: CORRESPONDENCE D Fax Number:		(302)351-6938	uccessful. it will be sent					
Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will b using a fax number, if	DATA ( e sent to provided	16340413 (302)351-6938 the e-mail address first; if that is uns ; if that is unsuccessful, it will be sent						
Property Type Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will b</i> <i>using a fax number, if</i> Phone:	DATA ( e sent to provided	16340413 (302)351-6938 the e-mail address first; if that is uns ; if that is unsuccessful, it will be sent 302-467-4200						
Property Type Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will b</i> <i>using a fax number, if</i> Phone: Email:	DATA ( provided)	(302)351-6938 the e-mail address first; if that is uns ; if that is unsuccessful, it will be sent 302-467-4200 Amy.Hamm@DBR.com						
Property Type Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will b</i> <i>using a fax number, if</i> Phone:	DATA ( e sent to provided	16340413 (302)351-6938 the e-mail address first; if that is uns ; if that is unsuccessful, it will be sent 302-467-4200						
Property Type Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will b</i> <i>using a fax number, if</i> Phone: Email: Correspondent Name:	DATA ( provided) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	(302)351-6938 the e-mail address first; if that is unst ; if that is unsuccessful, it will be sent 302-467-4200 Amy.Hamm@DBR.com ASHLEY I. PEZZNER						
Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will b using a fax number, if Phone: Email: Correspondent Name: Address Line 1:	DATA ( e sent to provided ( / / /	(302)351-6938 <i>the e-mail address first; if that is uns</i> <i>; if that is unsuccessful, it will be sent</i> 302-467-4200 Amy.Hamm@DBR.com ASHLEY I. PEZZNER DRINKER BIDDLE & REATH LLP						
Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will b using a fax number, if Phone: Email: Correspondent Name: Address Line 1: Address Line 2:	DATA ( provided) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	(302)351-6938 <i>the e-mail address first; if that is unsi</i> <i>; if that is unsuccessful, it will be sent</i> 302-467-4200 Amy.Hamm@DBR.com ASHLEY I. PEZZNER DRINKER BIDDLE & REATH LLP 222 DELAWARE AVE.						
Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will b using a fax number, if Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	DATA ( provided) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	(302)351-6938 <i>the e-mail address first; if that is unse</i> <i>; if that is unsuccessful, it will be sent</i> 302-467-4200 Amy.Hamm@DBR.com ASHLEY I. PEZZNER DRINKER BIDDLE & REATH LLP 222 DELAWARE AVE. WILMINGTON, DELAWARE 19801						
Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will b using a fax number, if Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	DATA ( provided) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	(302)351-6938 the e-mail address first; if that is unserventions ; if that is unsuccessful, it will be servention 302-467-4200 Amy.Hamm@DBR.com ASHLEY I. PEZZNER DRINKER BIDDLE & REATH LLP 222 DELAWARE AVE. WILMINGTON, DELAWARE 19801 216138-0026-US-587559						

### PATENT REEL: 048827 FRAME: 0284

This document serves as an Oath/Declaration (37 CFR 1.63).

## **Total Attachments: 5**

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Title of	Chemically amplified positive photoresist composition and pattern forming						
Invention	method using same						
As the below n	amed Inventor, I hereby declare that:						
This declaratio	n [] The attached application, or						
is directed to:	<ul> <li>[ x] United States application or PCT international application number PCT/EP2017/075738 filed on October 10, 2017.</li> </ul>						
The above-ide	ntified 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.						
	Z Electronic Materials (LUXEMBOURG) S.A.R.L. having a place of business at: 46 Place 648 Luxembourg, Luxembourg						
is desirous of a Letters Patent	(hereinafter referred to as "ASSIGNEE(S)") is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;						
hereby acknow exclusive right countries (inclu relevant Intern title and intere and its territori	REFORE, for good and valuable consideration the receipt and sufficiency of which is wedged, I, by these presents do assign and transfer unto said ASSIGNEE(S), the full and to the said invention in the United States and its territorial possessions and in all foreign uding the right to claim priority under the terms of the International Convention and other tational Treaties and Arrangements from the aforesaid application) and the entire right, st in and to any and all Letters Patent which may be granted therefor in the United States ial possessions and in any and all foreign countries and in and to any and all divisions, nuations, substitutions and renewals thereof.						
I hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE(S) as the assignee of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE(S), its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this Assignment and sale not been made.							
Further, I agree that I will communicate to said ASSIGNEE(S) or its (his) representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE(S), make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE(S), its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.							
I hereby ac 18 U,S.C. 100	knowledge that any willful false statement made in this declaration Is punishable under 1 by fine or imprisonment of not more than five (5) years, or both.						
LEGAL NAME	OF INVENTOR						

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1. 76) AND ASSIGNMENT

Inventor: Tetsumasa TAKAICHI

Tetsuma Jakatchi

Signature:

## PATENT REEL: 048827 FRAME: 0286

2019

DECLAR	ATIO	)N (3	37 (	CFR	1.6	3)	FOR U	TILIT	ΥO	R D	ESI	GN A	PPLI	CA.	101	1 U	SIN	ig al	Ν
	APP	LIC	ATI	ON	DA.	ΤÀ	SHEET	Г (37	CFF	<b>२</b> 1.	76)	AND	ASS	IGN	IME	NT			
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Title ofChemically amplified positive photoresist composition and pattern formingInventionmethod using same

As the below named Inventor, I hereby declare that:

This declaration [] The attached application, or

is directed to: [x] United States application or PCT international application number PCT/EP2017/075738 filed on October 10, 2017.

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.

WHEREAS, AZ Electronic Materials (LUXEMBOURG) S.A.R.L. having a place of business at: 46 Place Guillaume II 1648 Luxembourg, Luxembourg

(hereinafter referred to as "ASSIGNEE(S)")

is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, for good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, I, by these presents do assign and transfer unto said ASSIGNEE(S), the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in any to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE(S) as the assignee of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE(S), its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this Assignment and sale not been made.

Further, I agree that I will communicate to said ASSIGNEE(S) or its (his) representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE(S), make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE(S), its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

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 five (5) years, or both.

#### LEGAL NAME OF INVENTOR

Munji Kanato

Inventor: Shunji KAWATO

15 ' Jan, 20/9 Date:

Signature:

PATENT REEL: 048827 FRAME: 0287

#### DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1. 76) AND ASSIGNMENT

Title ofChemically amplified positive photoresist composition and pattern formingInventionmethod using same

As the below named Inventor, I hereby declare that:

This declaration [] The attached application, or

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LEGAL NAME OF INVENTOR

Manto Sizato

Inventor: Masato SUZUKI

Date: 15' Jan, 2019

Signature:

PATENT REEL: 048827 FRAME: 0288

DECEAN	APPLICATION DATA SHEET (37 CFR 1. 76) AND ASSIGNMENT
Title of Invention	Chemically amplified positive photoresist composition and pattern forming method using same
As the below r	amed Inventor, I hereby declare that:
This declaratio	n [] The attached application, or

DECLARATION (37 CER 1 63) FOR UTILITY OR DESIGN APPLICATION USING AN

is directed to: [ x] United States application or PCT international application number PCT/EP2017/075738 filed on October 10, 2017.

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.

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#### LEGAL NAME OF INVENTOR

Inventor: Kazumichi AKASHI

Date: 15. Jan, 2019

Signature: Kozumachi Akashj

PATENT REEL: 048827 FRAME: 0289

	ATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN
	APPLICATION DATA SHEET (37 CFR 1. 76) AND ASSIGNMENT
Title of	Chemically amplified positive photoresist composition and pattern forming

Invention method using same

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is directed to: [ x] United States application or PCT international application number PCT/EP2017/075738 filed on October 10, 2017.

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LEGAL NAME OF INVENTOR								
Inventor:	Tomohide KATAYAM	A		Date:	Jan. 15, 19			
Signature		2	H[e]	ŧ				

**RECORDED: 04/09/2019**