

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT4306879

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	Josef Rapp	02/21/2017
RECEIVING PARTY DATA		
Name:	CARL ZEISS SMT GMBH	
Street Address:	RUDOLF-EBER-STRASSE 2	
City:	OBERKOCHEN	
State/Country:	GERMANY	
Postal Code:	73447	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Application Number:	15451555
CORRESPONDENCE DATA		
Fax Number:	(877)769-7945	
<i>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.</i>		
Phone:	(650) 839-5001	
Email:	apsi@fr.com	
Correspondent Name:	CHRIS C. BOWLEY	
Address Line 1:	FISH & RICHARDSON P.C.	
Address Line 2:	P.O.BOX 1022	
Address Line 4:	MINNEAPOLIS, MINNESOTA 55440-1022	
ATTORNEY DOCKET NUMBER:	24548-0055002	
NAME OF SUBMITTER:	CHERYL A. FORREST	
SIGNATURE:	/Cheryl A. Forrest/	
DATE SIGNED:	03/07/2017	
Total Attachments: 7		
source=Rapp Estate Executed Assignment#page1.tif		
source=Rapp Estate Executed Assignment#page2.tif		
source=Rapp Estate Executed Assignment#page3.tif		
source=Rapp Estate Executed Assignment#page4.tif		
source=Rapp Estate Executed Assignment#page5.tif		

source=Rapp Estate Executed Assignment#page6.tif

source=Rapp Estate Executed Assignment#page7.tif

ASSIGNMENT

For valuable consideration, the receipt of which I acknowledge, and intending to be bound legally, I, JOSEF RAPP (DECEASED), assign to CARL ZEISS SMT GMBH, a corporation formed under the laws of Germany and having a principal place of business at Rudolf-Eber-Strasse 2, 73447 Oberkochen, Germany, and its successors, transferees, and assignees (collectively the "Assignee"), all of my right, title, and interest throughout the world, as joint inventor with inventor JOHANNES RUOFF, in the subject matter (the "Subject Matter") of a patent application that names me as inventor, is titled "IMAGING OPTICAL UNIT FOR EUV PROJECTION LITHOGRAPHY," and was filed in the United States Patent and Trademark Office on November 19, 2015, as application 14/945,837 (the "Application").

This Assignment assigns (a) the Application and all other applications that may be made for, and all patents, utility models, design registrations, and other rights of exclusion and inventors' certificates for, any of the Subject Matter (collectively the "Applications and Granted Rights") in every country or region, (b) the right to claim priority based on and the benefit of the filing date of any of the Applications and Granted Rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other applicable treaties or conventions, and (c) the right to pursue, collect, and retain in the Assignee's name or otherwise, damages and any other remedies arising from any past, present, or future infringement of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment.

I authorize the Assignee to apply for and pursue protection for any or all of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment in all countries, regions, and territories of the world, in my name or in the Assignee's name.

I represent and warrant that I have the right and power to make this Assignment and that I have not made and will not make any other assignment that conflicts with this Assignment.

I will communicate to the Assignee (or at the request of the Assignee to other parties) all known facts in any form relating to the Subject Matter, will execute and provide all oaths and declarations, statements, testimony, assignments, powers of attorney, applications, and documents, and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

I, Mathilde Dentler, hereby declare that I execute this assignment as the legal representative of deceased inventor JOSEF RAPP.

Full Name of Legal
Representative of Josef Rapp:
(Deceased)

Mathilde Dentler, for JOSEF RAPP

Signature of Legal
Representative of Josef Rapp:

Mathilde Dentler Date: Feb. 21, 2017

Residence Address:

Erlenweg 3

88525 Dürmentingen

Citizenship:

German

Post Office Address:

same as above

I, Anna Elisabeth Mayer, hereby declare that I execute this assignment as the legal representative of deceased inventor JOSEF RAPP.

Full Name of Legal

Representative of Josef Rapp: Anna Elisabeth Mayer, for JOSEF RAPP
(Deceased)

Signature of Legal

Representative of Josef Rapp: Anna Elisabeth Mayer Date: Feb. 22, 2017

Residence Address:

Hauptstraße 19
89 614 Öpfingen
German

Citizenship:

Post Office Address:

Same as above

I, Maria Rapp, hereby declare that I execute this assignment as the legal representative of deceased inventor JOSEF RAPP.

Full Name of Legal
Representative of Josef Rapp: Maria Rapp, for JOSEF RAPP
(Deceased)

Signature of Legal
Representative of Josef Rapp: Maria Rapp Date: Feb. 22, 2017

Residence Address: Zeisigweg 13
89584 Ehingen

Citizenship: German

Post Office Address: Same as above

I, Karl Rapp, hereby declare that I execute this assignment as the legal representative of deceased inventor JOSEF RAPP.

Full Name of Legal
Representative of Josef Rapp:
(Deceased)

Karl Rapp, for JOSEF RAPP

Signature of Legal
Representative of Josef Rapp:

[Signature] Date: Feb. 21, 2017

Residence Address:

5416 Crossview Lane
Lake in The Hills, IL 60156 USA

Citizenship:

German

Post Office Address:

same as above

I, Robert Rapp, hereby declare that I execute this assignment as the legal representative of deceased inventor JOSEF RAPP.

Full Name of Legal
Representative of Josef Rapp:
(Deceased)

Robert Rapp, for JOSEF RAPP

Signature of Legal
Representative of Josef Rapp:

Robert Rapp Date: Feb 27, 2017

Residence Address:

Im Kohlpfad 17/1
74074 Heilbronn

Citizenship:

German

Post Office Address:

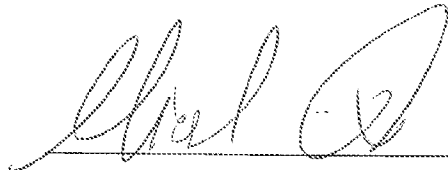
Same as above

I, Michael Rapp, hereby declare that I execute this assignment as the legal representative of deceased inventor JOSEF RAPP.

Full Name of Legal
Representative of Josef Rapp:
(Deceased)

Michael Rapp, for JOSEF RAPP

Signature of Legal
Representative of Josef Rapp:

 Date: Feb. 22, 2017

Residence Address:

Tränkesstr. 23
79114 Freiburg

Citizenship:

German

Post Office Address:

Same as above

The Assignee hereby acknowledges and accepts the foregoing assignment.

Assignee: CARL ZEISS SMT GMBH

Signature: _____

Date: _____

Name: _____

Title: _____

23607622.doc