

## PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Michael Patra</td> <td>09/10/2012</td> </tr> <tr> <td>Stig Bieling</td> <td>09/11/2012</td> </tr> <tr> <td>Markus Deguenther</td> <td>09/26/2012</td> </tr> <tr> <td>Frank Schlesener</td> <td>09/14/2012</td> </tr> <tr> <td>Markus Schwab</td> <td>09/11/2012</td> </tr> </tbody> </table>		Name	Execution Date	Michael Patra	09/10/2012	Stig Bieling	09/11/2012	Markus Deguenther	09/26/2012	Frank Schlesener	09/14/2012	Markus Schwab	09/11/2012
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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													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13604296</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13604296								
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Application Number:	13604296												
CORRESPONDENCE DATA													
Fax Number:	8777697945												
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
Phone:	(617) 542-5070												
Email:	apsi@fr.com												
Correspondent Name:	Sean P. Daley												
Address Line 1:	FISH & RICHARDSON P.C.												
Address Line 2:	P.O. BOX 1022												
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ATTORNEY DOCKET NUMBER:	18239-0091001												
NAME OF SUBMITTER:	Alissa Tizzano												
Total Attachments: 3 source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif													

CH \$40.00 13604296

ASSIGNMENT

For valuable consideration, we, MICHAEL PATRA of Schubartweg 41, 73447 Oberkochen, Germany, STIG BIELING of Im Unterfeld 18, 73434 Aalen, Germany, MARKUS DEGUENTHER of Langackerweg 20, 73432 Aalen, Germany, FRANK SCHLESENER of Nelkenweg 2, D-73447 Oberkochen, Germany, MARKUS SCHWAB of Limesstrasse 47/2, 73434 Aalen, Germany, hereby assign to: Carl Zeiss SMT GmbH, a corporation of Germany having a place of business at:

Rudolf-Eber-Strasse 2  
73447 Oberkochen  
Germany; and

its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us, entitled ILLUMINATION SYSTEM OF A MICROLITHOGRAPHIC PROJECTION EXPOSURE APPARATUS, filed 9/5/2012, and assigned U.S. Serial Number 13/604,296, this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

Date: Sep 10<sup>th</sup>, 2012 Michael Patra  
MICHAEL PATRA

Witnessed by:

Name: Edith Sp Date: September 10, 2012

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Date: 9/16/2012 Stig Bielng  
STIG BIELING

Witnessed by:

Name: Edith Sp Date: September 11, 2012

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Date: September 20<sup>th</sup>, 2012 Markus Deguenther  
MARKUS DEGUENTHER

Witnessed by:

Name: Christine Grotz Date: September 26, 2012

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Date: September 14<sup>th</sup>, 2012 Frank Schlesener  
FRANK SCHLESENER

Witnessed by:

Name: Christine Grotz Date: September 14, 2012

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Date: 09/11/2012

Markus Schwab  
MARKUS SCHWAB

Witnessed by:

Name: Erik Sch

Date: September 11, 2012

Name: \_\_\_\_\_

Date: \_\_\_\_\_

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