**PATENT ASSIGNMENT**

Electronic Version v1.1  
Stylesheet Version v1.1

<table>
<thead>
<tr>
<th>SUBMISSION TYPE:</th>
<th>NEW ASSIGNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>NATURE OF CONVEYANCE:</td>
<td>ASSIGNMENT</td>
</tr>
</tbody>
</table>

**CONVEYING PARTY DATA**

<table>
<thead>
<tr>
<th>Name</th>
<th>Execution Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexandra PAZIDIS</td>
<td>06/23/2008</td>
</tr>
<tr>
<td>Christoph ZACZEK</td>
<td>06/13/2008</td>
</tr>
<tr>
<td>Alexander HIRNET</td>
<td>06/09/2008</td>
</tr>
<tr>
<td>Herbert FINK</td>
<td>09/11/2008</td>
</tr>
<tr>
<td>Dieter SCHMEREK</td>
<td>06/12/2008</td>
</tr>
</tbody>
</table>

**RECEIVING PARTY DATA**

<table>
<thead>
<tr>
<th>Name</th>
<th>Carl Zeiss SMT AG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Address</td>
<td>Rudolf-Eber-Strasse 2</td>
</tr>
<tr>
<td>City</td>
<td>Oberkochen</td>
</tr>
<tr>
<td>State/Country</td>
<td>GERMANY</td>
</tr>
<tr>
<td>Postal Code</td>
<td>73447</td>
</tr>
</tbody>
</table>

**PROPERTY NUMBERS Total: 1**

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Number</td>
<td>12135781</td>
</tr>
</tbody>
</table>

**CORRESPONDENCE DATA**

Fax Number: (202)293-7860  
*Correspondence will be sent via US Mail when the fax attempt is unsuccessful.*  
Phone: 202-293-7060  
Email: CRICHARDSON@SUGHRUE.COM  
Correspondent Name: SUGHRUE MION, PLLC  
Address Line 1: 2100 PENNSYLVANIA AVENUE, N.W.  
Address Line 2: SUITE 600  
Address Line 4: WASHINGTON, DISTRICT OF COLUMBIA 20037

**ATTORNEY DOCKET NUMBER:** Q106672

**NAME OF SUBMITTER:** George F. Lehnigk
Assignment

Whereas, I/We, Alexandra PAZIDIS, Christoph ZACZEK, Alexander HIRNET, Herbert FINK, and Dieter SCHMEREK of Aalen, GERMANY; Heubach, GERMANY; Oberkochen, GERMANY; Aalen, GERMANY; and Huettlingen, GERMANY, respectively, hereinafter called assignor(s), have invented certain improvements in

METHOD OF PROCESSING AN OPTICAL ELEMENT AND AN OPTICAL ELEMENT, IN PARTICULAR FOR A MICROLITHOGRAPHIC PROJECTION EXPOSURE APPARATUS

and executed an application for Letters Patent of the United States of America therefor; and

Whereas, CARL ZEISS SMT AG, Rudolf-Eber-Strasse 2, 73447 Oberkochen, GERMANY (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, including the right to claim priority under 35 U.S.C. §119, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

I/We hereby authorize and request our attorneys SUGHRIE MION, PLLC of 2100 Pennsylvania Avenue, NW, Washington, DC 20037-3213 to insert here in parentheses (Application number 12/135,781 and Confirmation number 4388, filed June 9, 2008 ) the application number and filing date of said application as known.

Date: 06/23/2008 Alexandra PAZIDIS

Date: 06/13/2008 Christoph ZACZEK

Date: Alexander HIRNET

Date: Herbert FINK

Date: Dieter SCHMEREK

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)
Assignment

Whereas, I/We, Alexandra PAZIDIS, Christoph ZACZEK, Alexander HIRNET, Herbert FINK, and Dieter SCHMERER of Aalen, GERMANY; Heubach, GERMANY; Oberkochen, GERMANY; Aalen, GERMANY; and Huettlingen, GERMANY, respectively, hereinafter called assignor(s), have invented certain improvements in

METHOD OF PROCESSING AN OPTICAL ELEMENT AND AN OPTICAL ELEMENT,
IN PARTICULAR FOR A MICROLITHOGRAPHIC PROJECTION EXPOSURE
APPARATUS

and executed an application for Letters Patent of the United States of America therefor; and

Whereas, CARL ZEISS SMT AG, Rudolf-Eber-Strasse 2, 73447 Oberkochen, GERMANY (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, including the right to claim priority under 35 U.S.C. §119, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

I/We hereby authorize and request our attorneys SUGHRUE MION, PLLC of 2100 Pennsylvania Avenue, NW, Washington, DC 20037-3213 to insert here in parentheses (Application number 12/135,781 and Confirmation number 41388, filed June 9, 2008) the application number and filing date of said application when known.

Date:

s/Alexandra PAZIDIS

Date:

s/Christoph ZACZEK

Date: June 09, 08

s/Alexander HIRNET

Date:

s/Herbert FINK

Date:

s/Dieter SCHMERER

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)
Assignment

Whereas, I/We, Alexandra PAZIDIS, Christoph ZACZEK, Alexander HIRNET, Herbert FINK, and Dieter SCHMEREK of Aalen, GERMANY; Heubach, GERMANY; Oberkochen, GERMANY; Mannheim, GERMANY; and Huettlingen, GERMANY, respectively, hereinafter called assignor(s), have invented certain improvements in

METHOD OF PROCESSING AN OPTICAL ELEMENT AND AN OPTICAL ELEMENT, IN PARTICULAR FOR A MICROLITHOGRAPHIC PROJECTION EXPOSURE APPARATUS

and executed an application for Letters Patent of the United States of America therefor; and

Whereas, CARL ZEISS SMT AG, Rudolf-Eber-Strasse 2, 73447 Oberkochen, GERMANY (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, including the right to claim priority under 35 U.S.C. §119, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

I/We hereby authorize and request our attorneys SUGHRUE MION, PLLC of 2100 Pennsylvania Avenue, NW, Washington, DC 20037-3213 to insert here in parentheses (Application number 12/135,781 and Confirmation number 4388, filed June 9, 2008) the application number and filing date of said application when known.

Date:

s/Alexandra PAZIDIS

Date:

s/Christoph ZACZEK

Date:

s/Alexander HIRNET

Date: Herbert Fink, Sep. 11, 2008

s/Herbert FINK

Date:

s/Dieter SCHMEREK

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)
Assignment

Whereas, I/We, Alexandra PAZIDIS, Christoph ZACZEK, Alexander HIRNET, Herbert FINK, and Dieter SCHMEREK of Aalen, GERMANY; Heubach, GERMANY; Oberkochen, GERMANY; Aalen, GERMANY; and Huettlingen, GERMANY, respectively, hereinafter called assignor(s), have invented certain improvements in

METHOD OF PROCESSING AN OPTICAL ELEMENT AND AN OPTICAL ELEMENT, IN PARTICULAR FOR A MICROLITHOGRAPHIC PROJECTION EXPOSURE APPARATUS

and executed an application for Letters Patent of the United States of America therefor; and

Whereas, CARL ZEISS SMT AG, Rudolf-Eber-Strasse 2, 73447 Oberkochen, GERMANY (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, including the right to claim priority under 35 U.S.C. §119, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

I/We hereby authorize and request our attorneys SUGHRUE MION, PLLC of 2100 Pennsylvania Avenue, NW, Washington, DC 20037-3213 to insert here in parentheses (Application number 12/135,781 and Confirmation number H3888, filed June 9, 2008) the application number and filing date of said application when known.

Date: ______________________

s/Alexandra PAZIDIS

Date: ______________________

s/Christoph ZACZEK

Date: ______________________

s/Alexander HIRNET

Date: ______________________

s/Herbert FINK

Date: June 12, 2008 ______________________

s/Dieter SCHMEREK

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)