**PATENT ASSIGNMENT**

Electronic Version v1.1  
Stylesheet Version v1.1

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**CONVEYING PARTY DATA**

<table>
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<tr>
<th>Name</th>
<th>Execution Date</th>
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<tbody>
<tr>
<td>Igor V. Fomenkov</td>
<td>05/20/2011</td>
</tr>
<tr>
<td>William N. Partlo</td>
<td>05/19/2011</td>
</tr>
<tr>
<td>Georgy O. Vaschenko</td>
<td>05/17/2011</td>
</tr>
<tr>
<td>William Oldham</td>
<td>05/16/2011</td>
</tr>
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**RECEIVING PARTY DATA**

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<tr>
<th>Name</th>
<th>Cymer, Inc.</th>
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<tr>
<td>Street Address</td>
<td>17075 Thornmint Ct.</td>
</tr>
<tr>
<td>City</td>
<td>San Diego</td>
</tr>
<tr>
<td>State/Country</td>
<td>CALIFORNIA</td>
</tr>
<tr>
<td>Postal Code</td>
<td>92127</td>
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**PROPERTY NUMBERS Total: 1**

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<tr>
<td>Application Number</td>
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**CORRESPONDENCE DATA**

Fax Number: (412)872-9828  
*Correspondence will be sent via US Mail when the fax attempt is unsuccessful.*

Phone: 412-341-1298  
Email: diana@diberardinolaw.com  
Correspondent Name: Diana DiBerardino  
Address Line 1: 268 Connecting Rd.  
Address Line 4: Pittsburgh, PENNSYLVANIA 15228

**ATTORNEY DOCKET NUMBER:** 002-045001/2010-0031-01

**NAME OF SUBMITTER:** Diana DiBerardino

Total Attachments: 3  
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ASSIGNMENT OF PATENT APPLICATION

We, Igor V. Fomenkov, William N. Partlo, Georgiy O. Vaschenko, and William Oldham, the undersigned, (herein "Assignor") have agreed and hereby agree to assign to CYMER, Inc., a Nevada corporation having its principal place of business in San Diego, California (hereinafter CYMER), for good and valuable consideration, receipt of which is hereby acknowledged, and do hereby sell, assign and transfer to CYMER, its successors and assigns, the entire right, title and interest, including the right of priority, in and to our inventions that are disclosed in the application for the United States patent entitled:

FILTER FOR MATERIAL SUPPLY APPARATUS

(I hereby authorize and request an attorney associated with Customer Number 66522 to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on ______, as United States Application No. ______, and as described and/or claimed in any and all continuations, continuations-in-part (C-I-Ps), divisionals, and reissues or re-examinations, or extensions of said Letters Patent and all other rights of inventors, of countries foreign thereto which may be granted thereon or therefor, or any foreign application claiming priority to said application for said Letters Patent and any and all Letters Patent of the United States and Letters Patent or related rights of inventors, of countries foreign thereto which may be granted thereon or therefor, or any foreign application claiming priority to said application, and any reissues, or re-examinations, or extensions of said Letters Patent and all rights granted under the Hague Convention, the Paris Convention for the Protection of Industrial Property and the Patent Cooperation Treaty.

We additionally authorize CYMER to file applications in our names for Letters Patent in any country, the rights to any of the foregoing to be held and enjoyed by CYMER, for its own use and behalf, and as for the use and behalf of its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made;

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said invention(s) or improvement(s), said application and said Letters Patent, to CYMER, its successors, assigns, nominees or legal representatives, and we agree to communicate to CYMER, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations, C-I-Ps, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid CYMER, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by us in lending such cooperation and assistance are paid by CYMER;

AND we hereby authorize and request the commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to CYMER, as assignee of the entire right, title and interest, any and all Letters Patent for said invention(s) or improvement(s), including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

Dated: 05/20/2011

Igor V. Fomenkov

William N. Partlo

Dated: 05/19/2011

Georgiy O. Vaschenko

Dated: ________________

William Oldham
ASSIGNMENT OF PATENT APPLICATION

We, Igor V. Fomenkov, William N. Partio, Georgiy O. Vaschenko, and William Oldham, the undersigned, (herein "Assignor") have agreed and hereby agree to assign to CYMER, Inc., a Nevada corporation having its principal place of business in San Diego, California (hereinafter CYMER), for good and valuable consideration, receipt of which is hereby acknowledged, and do hereby sell, assign and transfer to CYMER, its successors and assigns, the entire right, title and interest, including the right of priority, in and to our inventions that are disclosed in the application for the United States patent entitled:

FILTER FOR MATERIAL SUPPLY APPARATUS

(I hereby authorize and request an attorney associated with Customer Number 8823 to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on __________________, as United States Application No. ____________________, and as described and/or claimed in any and all continuations, continuations-in-part (C-I-Ps), divisions, and renewals of and substitutes for, or any other U.S. application claiming priority to, said application for said Letters Patent, and any and all Letters Patent of the United States and Letters Patent or related rights of inventors, of countries foreign thereto which may be granted thereon or therefore, or any foreign application claiming priority to said application, and any reissues, or re-examinations, or extensions of said Letters Patent and all rights granted under the Hague Convention, the Paris Convention for the Protection of Industrial Property and the Patent Cooperation Treaty.

We additionally authorize CYMER to file applications in our names for Letters Patent in any country, the rights to any of the foregoing to be held and enjoyed by CYMER, for its own use and behalf, and for the use and behalf of its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made;

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said invention(s) or improvement(s), said application and said Letters Patent, to CYMER, its successors, assigns, nominees or legal representatives, and we agree to communicate to CYMER, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisions, continuations, C-I-Ps, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid CYMER, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by us in lending such cooperation and assistance are paid by CYMER;

AND we hereby authorize and request the commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to CYMER, as assignee of the entire right, title and interest, any and all Letters Patent for said invention(s) or improvement(s), including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

Dated: 5/19/14
Igor V. Fomenkov
William N. Partio

Dated: ____________________________
Georgiy O. Vaschenko

Dated: ____________________________
William Oldham
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We, Igor V. Fomenkov, William N. Partio, Georgiy O. Vaschenko, and William Oldham, the undersigned, (herein "Assignor") have agreed and hereby agree to assign to CYMER, Inc., a Nevada corporation having its principal place of business in San Diego, California (hereinafter CYMER), for good and valuable consideration, receipt of which is hereby acknowledged, and do hereby sell, assign and transfer to CYMER, its successors and assigns, the entire right, title and interest, including the right of priority, in and to our inventions that are disclosed in the application for the United States patent entitled:

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Dated: ____________________________
Igor V. Fomenkov

Dated: ____________________________
William N. Partio

Dated: 5/16/2011
Georgiy O. Vaschenko

Dated: 5/16/2011
William Oldham

Dated: ____________________________
William Oldham

RECORDED: 05/20/2011
PATENT
REEL: 026317 FRAME: 0552