

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

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>Seth B. Darling</td> <td>08/23/2013</td> </tr> <tr> <td>Jeffrey W. Elam</td> <td>08/23/2013</td> </tr> <tr> <td>Yu-Chih Tseng</td> <td>07/26/2013</td> </tr> </tbody> </table>		Name	Execution Date	Seth B. Darling	08/23/2013	Jeffrey W. Elam	08/23/2013	Yu-Chih Tseng	07/26/2013		
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>UChicago Argonne, LLC</td> </tr> <tr> <td>Street Address:</td> <td>5801 South Ellis Avenue</td> </tr> <tr> <td>City:</td> <td>Chicago</td> </tr> <tr> <td>State/Country:</td> <td>ILLINOIS</td> </tr> <tr> <td>Postal Code:</td> <td>60637</td> </tr> </table>		Name:	UChicago Argonne, LLC	Street Address:	5801 South Ellis Avenue	City:	Chicago	State/Country:	ILLINOIS	Postal Code:	60637
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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>13902169</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13902169						
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CORRESPONDENCE DATA											
<p>Fax Number:</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Email: lpellerito@foley.com</p> <p>Correspondent Name: Michael D. Rechtin</p> <p>Address Line 1: 3000 K Street, NW</p> <p>Address Line 2: Foley & Lardner LLP</p> <p>Address Line 4: Chicago, ILLINOIS 20007</p>											
ATTORNEY DOCKET NUMBER:	051583-0588										
NAME OF SUBMITTER:	Michael D. Rechtin										
Signature:	/Michael D. Rechtin/										
Date:	09/19/2013										

OP \$40.00 13902169

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

Total Attachments: 3

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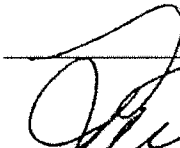

ASSIGNMENT

We, Seth B. Darling of Chicago and Jeffrey W. Elam of Elmhurst, both in the State of Illinois, for good and valuable considerations to us in hand paid, the receipt and sufficiency whereof is hereby acknowledged, have sold, assigned, conveyed and set over, and do hereby sell, assign, convey and set over unto UChicago Argonne, LLC, having a place of business at 5801 South Ellis Avenue, Chicago, Illinois 60637, its successors and assigns, the entire right, title and interest in and to all subject matter invented or designed by us and disclosed in the patent application for the SEQUENTIAL INFILTRATION SYNTHESIS FOR ENHANCING MULTIPLE-PATTERNING LITHOGRAPHY, ANL-IN-12-107, which claims the benefit of Application Serial No. 13/902,169 filed in the United States Patent and Trademark Office on May 24, 2013 as a continuation of Application Serial No. 13/427,619 filed in the United States Patent and Trademark Office on March 22, 2012, executed by us and any divisions and continuations thereof and in and to all Letters Patent of the United States, including any reissues and extensions thereof that may be obtained therefor, and the right, where such right can be legally exercised, in its own name to apply for and obtain Letters Patent, Inventor's Certificates, Utility Models and Designs, in countries foreign to the United States, including the full right to claim for any such application the benefits of the International Convention as fully and entirely as we could have done if the application had been in our names, and the entire interest in any Letters Patent, Inventor's Certificate, Utility Model or Design which may be granted on any such application in such foreign country; 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 Letters Patent, Inventor's Certificates, Utility Models or Designs, on applications as aforesaid, to issue any and all Letters Patent, Inventor's Certificates, Utility Models and Designs that may be granted for said invention to said UChicago Argonne, LLC, its successors and assigns.

And for the above-named considerations, we hereby agree that we will without additional compensation but without cost to ourselves, promptly communicate to UChicago Argonne, LLC, its successors and assigns, any facts known to us respecting said invention whenever requested, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuing and reissue applications for Letters Patent, Inventor's Certificates, Utility Models and Designs and assignments thereof, make all rightful oaths and generally do everything possible to aid said assignee, its successors and assigns, as and when requested by them, in obtaining and enforcing proper Letters Patents, Inventor's Certificate, Utility Model and Design protection for said invention or inventions and improvements, in the United States and in all other countries.

Dated: 8/23/2013

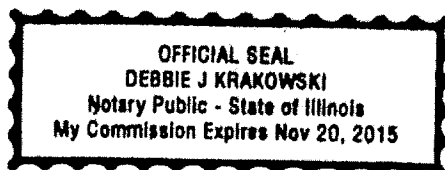
Dated: 9/23/2013



Seth B. Darling

Jeffrey W. Elam

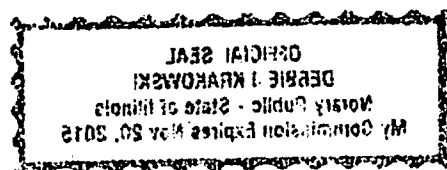
STATE OF ILLINOIS)
) ss
COUNTY OF DU PAGE)

On this 23rd day of August, 2013, before me a Notary Public in and for the County and State aforesaid, appeared the above named persons, who are personally known to me to be the same persons whose names are subscribed to the foregoing instrument, and acknowledged that they executed same instrument as their free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.




Notary Public



ASSIGNMENT

I, Yu-Chih Tseng of Oakville, Ontario, Canada, for good and valuable considerations to me in hand paid, the receipt and sufficiency whereof is hereby acknowledged, have sold, assigned, conveyed and set over, and do hereby sell, assign, convey and set over unto UChicago Argonne, LLC, having a place of business at 5801 South Ellis Avenue, Chicago, Illinois 60637, its successors and assigns, the entire right, title and interest in and to all subject matter invented or designed by me and disclosed in the patent application for the SEQUENTIAL INFILTRATION SYNTHESIS FOR ENHANCING MULTIPLE-PATTERNING LITHOGRAPHY, ANL-IN-12-107, which claims the benefit of Application Serial No. 13/902,169 filed in the United States Patent and Trademark Office as a continuation of Application Serial No. 13/427,619 filed in the United States Patent and Trademark Office on March 22, 2012, executed by me and any divisions and continuations thereof and in and to all Letters Patent of the United States, including any reissues and extensions thereof that may be obtained therefor, and the right, where such right can be legally exercised, in its own name to apply for and obtain Letters Patent, Inventor's Certificates, Utility Models and Designs, in countries foreign to the United States, including the full right to claim for any such application the benefits of the International Convention as fully and entirely as I could have done if the application had been in my name, and the entire interest in any Letters Patent, Inventor's Certificate, Utility Model or Design which may be granted on any such application in such foreign country; and I 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 Letters Patent, Inventor's Certificates, Utility Models or Designs, on applications as aforesaid, to issue any and all Letters Patent, Inventor's Certificates, Utility Models and Designs that may be granted for said invention to said UChicago Argonne, LLC, its successors and assigns.

And for the above-named considerations, I hereby agree that I will without additional compensation but without cost to myself, promptly communicate to said UChicago Argonne, LLC, its successors and assigns, any facts known to me respecting said invention whenever requested, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuing and reissue applications for Letters Patent, Inventor's Certificates, Utility Models and Designs and assignments thereof, make all rightful oaths and generally do everything possible to aid said assignee, its successors and assigns, as and when requested by them, in obtaining and enforcing proper Letters Patents, Inventor's Certificate, Utility Model and Design protection for said invention or inventions and improvements, in the United States and in all other countries.

Yu-Chih Tseng
INVENTOR NAME PRINTED


INVENTOR SIGNATURE

July 26th, 2013

DATE
July 26th, 2013
DATE

XIN PANG
WITNESS NAME PRINTED


WITNESS SIGNATURE

July 26, 2013
DATE

July 26, 2013
DATE