

Docket No. 2010602

**RECORDATION FORM COVER SHEET  
 PATENTS ONLY**


To the Director of the U.S. Patent and Trademark Office. Please record the attached documents or the new addresses(es) below.

<b>1. Name of conveying party(ies):</b> <u>AGATHAGELOS KYRLIDIS</u> <u>ALEXANDER I. SHAKHNOVICH</u> <u>QINGLING ZHANG</u> <u>JOSEPH B. CARROLL</u> Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> No	<b>2. Name and address of receiving party(ies):</b> <u>Cabot Corporation</u> Internal Address: _____ Street Address: <u>Two Seaport Lane</u> <u>Suite 1300</u> City: <u>Boston</u> State: <u>MA</u> Zip: <u>02210</u> Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>3. Nature of Conveyance/Execution Date(s):</b> <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other Execution Date(s): <u>October 24, October 28, 2011,</u> <u>November 11, 2011 and November 14, 2011</u>	

**4. Application number(s) or patent number(s):**  
 If this document is being filed together with a new application, the execution date of the application is:  
 A. Patent Application No.(s) 13/271,452 FILED OCTOBER 12, 2011  
 B. Patent No.(s) \_\_\_\_\_  
 Additional numbers attached?  Yes  No

<b>5. Name and address of party to whom correspondence concerning document should be mailed:</b> Name: <u>Gregory M. Hill</u> Internal Address: <u>Law Department</u> Street Address: <u>Cabot Corporation</u> <u>157 Concord Road</u> City: <u>Billerica</u> State: <u>Massachusetts</u> Zip: <u>01821</u> Tel. No.: <u>(978) 670-6972</u> Fax No.: <u>(978) 670-8027</u> Email Address: <u>iplaw@cabot-corp.com</u>	<b>6. Total Number of applications and patents involved:</b> <u>1</u> Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>7. Total fee (37 CFR 1.21(h) &amp; 3.41):</b> \$ <u>40.00</u> <input checked="" type="checkbox"/> Authorized to be charged to deposit account <input type="checkbox"/> Enclosed <b>8. Payment Information</b> Deposit Account Number: <u>03-0060</u> Authorized User Name: <u>Gregory M. Hill</u>
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**9. Statement and signature:**  
*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

Gregory M. Hill            12-19-2011  
 Name of Person Signing      Signature      Date  
 Reg. No. 31,369      Total number of pages including cover sheet, attachments and documents: 9

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:  
 Mail Stop Assignment Recordation Services, Director of the USPTO, P.O. Box 1450, Alexandria, VA 22313-1450

2010602 |AsstRecordationCover.doc

CH \$40.00 030060 13271452

**ASSIGNMENT**

**WHEREAS**, we, Agathagos Kyrilidis of 20 Second Street, Unit 521, Cambridge, Massachusetts 02141, a citizen of Greece, Alexander I. Shakhnovich of 43 Bradley Road, Arlington, Massachusetts 02474, a citizen of the United States of America, Qingling Zhang of 21 Kenmar Drive, Apt. 15, Billerica, Massachusetts 01821, a citizen of the People's Republic of China, and Joseph B. Carroll of 4920 Saddleridge Court, Glen Allen, Virginia 23059, a citizen of the United States of America, having invented the subject matter described in the U.S. Patent Application entitled "**SURFACE MODIFIED ORGANIC BLACK PIGMENTS, SURFACE MODIFIED CARBON BLACKS, PIGMENT MIXTURES USING THEM AND LOW DIELECTRIC BLACK DISPERSIONS, COATINGS, FILMS, BLACK MATRICES, AND DEVICES CONTAINING SAME,**" the specification of which was filed on October 12, 2011, as United States Patent Application Serial No.13/271,452; and

**WHEREAS**, Cabot Corporation, a corporation organized and existing under and by virtue of the laws of the State of Delaware, doing business at Two Seaport Lane, Suite 1300, Boston, Massachusetts 02210, is desirous of acquiring the entire right, title and interest in and to said application and the invention therein described and claimed and any Letters Patent that may be issued upon said application or for the improvements therein contained.

**NOW THEREFORE**, for and in consideration of the sum of One Dollar (\$1.00) lawful money of the United States and other valuable considerations, in hand paid to us, the receipt and sufficiency whereof is hereby acknowledged, we, Agathagos Kyrilidis, Alexander I. Shakhnovich, Qingling Zhang and Joseph B. Carroll, have sold, assigned and transferred and do hereby sell, assign and transfer unto Cabot Corporation, its successors and assigns, the entire right, title and interest in and to said application and the invention therein contained, including the right to apply for any Letters Patent in the United States of America and in any and all foreign countries on said invention, and any and all other applications for Letters Patent on said invention, in whatsoever countries, including all provisional, divisional, renewal, substitution, continuation, continuation-in-part, reissue, re-examination and Convention applications based upon said invention or upon said application, to the full end of the term or terms for which said Letters Patent may be issued, and every priority right that is or may be predicated upon or arise from said invention, said application and said Letters Patent, the same to be held and enjoyed by Cabot Corporation, its successors and assigns, the same as it would have been held and enjoyed by us if this assignment and sale had not been made.

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And we hereby authorize Cabot Corporation, to file patent applications in any or all countries on any or all of said invention in our name or in the name of Cabot Corporation, or otherwise as Cabot Corporation, may deem advisable, under any International Convention or otherwise.

And we hereby authorize the Commissioner of Patents of the United States and the empowered officials of all other governments to issue or transfer all said Letters Patent to Cabot Corporation, as assignee of the entire right, title and interest therein or otherwise as Cabot Corporation, may direct, in accordance with this instrument of assignment.

We hereby represent and warrant that there are no rights or interests inconsistent with the rights and interests granted herein and that we will not execute any instrument or grant or transfer any rights or interests inconsistent with the rights and interest granted herein, and that we, Agathagos Kyrilidis, Alexander I. Shakhnovich, Qingling Zhang and Joseph B. Carroll, have sold, assigned and transferred and do hereby sell, assign and transfer unto Cabot Corporation, its successors and assigns, any further documents or instruments and do any and all further acts that may reasonably be deemed necessary by Cabot Corporation to enable Cabot Corporation, its successors or assigns, to file applications for the invention in any country where it may elect to file such applications, and that may be necessary to vest in Cabot Corporation, its successors and assigns, the title herein conveyed or intended so to be, and to enable such title to be recorded in the United States and foreign countries where such application or applications may be filed.

And we further covenant and agree, in consideration of the premises, that we, our executors and administrators, will at any time, upon request, communicate to Cabot Corporation, its successors and assigns, any facts relating to the invention and the improvements contained therein and the history thereof, known to us or our executors and administrators, and that we will testify as to the same in any interference or other litigation when requested so to do by Cabot Corporation, its successors and assigns.

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IN TESTIMONY WHEREOF, I, **Agathagelos Kyrilidis**, have hereunto set my hand  
and seal this \_\_\_\_ day of \_\_\_\_\_, 2.

---

**Agathagelos Kyrilidis**

COMMONWEALTH OF MASSACHUSETTS )  
 ) ss.  
COUNTY OF MIDDLESEX )

On this \_\_\_\_ day of \_\_\_\_\_, 2, before me personally appeared **Agathagelos Kyrilidis**, before me known and known to me to be the individual described herein and who executed the foregoing instrument, and s/he duly acknowledged to me that s/he executed the same for the purpose therein set forth.

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**NOTARY PUBLIC**  
My Commission Expires:

IN TESTIMONY WHEREOF, I, **Alexander I. Shakhnovich**, have hereunto set my  
hand and seal this \_\_\_\_ day of \_\_\_\_\_, 2.

---

**Alexander I. Shakhnovich**

COMMONWEALTH OF MASSACHUSETTS )  
 ) ss.  
COUNTY OF MIDDLESEX )

On this \_\_\_\_ day of \_\_\_\_\_, 2, before me personally appeared **Alexander I. Shakhnovich**, before me known and known to me to be the individual described herein and who executed the foregoing instrument, and s/he duly acknowledged to me that s/he executed the same for the purpose therein set forth.

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**NOTARY PUBLIC**  
My Commission Expires:

Docket No. 2010602

IN TESTIMONY WHEREOF, I, **Qingling Zhang**, have hereunto set my hand and seal

this \_\_\_\_\_ day of \_\_\_\_\_, 2\_\_\_\_\_.

\_\_\_\_\_  
**Qingling Zhang**

COMMONWEALTH OF MASSACHUSETTS )  
 ) ss.  
COUNTY OF \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2\_\_\_\_\_, before me personally appeared **Qingling Zhang**, before me known and known to me to be the individual described herein and who executed the foregoing instrument, and s/he duly acknowledged to me that s/he executed the same for the purpose therein set forth.

\_\_\_\_\_  
**NOTARY PUBLIC**  
My Commission Expires:

IN TESTIMONY WHEREOF, I, **Joseph B. Carroll**, have hereunto set my hand and seal this 24 day of October, 2011.

  
\_\_\_\_\_  
**Joseph B. Carroll**

COMMONWEALTH OF VIRGINIA )  
 ) ss.  
COUNTY OF Richmond )

On this 24<sup>th</sup> day of October, 2011, before me personally appeared **Joseph B. Carroll**, before me known and known to me to be the individual described herein and who executed the foregoing instrument, and s/he duly acknowledged to me that s/he executed the same for the purpose therein set forth.

  
\_\_\_\_\_  
**NOTARY PUBLIC**  
My Commission Expires:

Commission No. 116419  
My Commission Expires October 31, 2014

**ASSIGNMENT**

**WHEREAS**, we, Agathagelos Kyrilidis of 20 Second Street, Unit 521, Cambridge, Massachusetts 02141, a citizen of Greece, Alexander I. Shakhnovich of 43 Bradley Road, Arlington, Massachusetts 02474, a citizen of the United States of America, Qingling Zhang of 21 Kenmar Drive, Apt. 15, Billerica, Massachusetts 01821, a citizen of the People's Republic of China, and Joseph B. Carroll of 4920 Saddleridge Court, Glen Allen, Virginia 23059, a citizen of the United States of America, having invented the subject matter described in the U.S. Patent Application entitled "**SURFACE MODIFIED ORGANIC BLACK PIGMENTS, SURFACE MODIFIED CARBON BLACKS, PIGMENT MIXTURES USING THEM AND LOW DIELECTRIC BLACK DISPERSIONS, COATINGS, FILMS, BLACK MATRICES, AND DEVICES CONTAINING SAME,**" the specification of which was filed on October 12, 2011, as United States Patent Application Serial No.13/271,452; and

**WHEREAS**, Cabot Corporation, a corporation organized and existing under and by virtue of the laws of the State of Delaware, doing business at Two Seaport Lane, Suite 1300, Boston, Massachusetts 02210, is desirous of acquiring the entire right, title and interest in and to said application and the invention therein described and claimed and any Letters Patent that may be issued upon said application or for the improvements therein contained.

**NOW THEREFORE**, for and in consideration of the sum of One Dollar (\$1.00) lawful money of the United States and other valuable considerations, in hand paid to us, the receipt and sufficiency whereof is hereby acknowledged, we, Agathagelos Kyrilidis, Alexander I. Shakhnovich, Qingling Zhang and Joseph B. Carroll, have sold, assigned and transferred and do hereby sell, assign and transfer unto Cabot Corporation, its successors and assigns, the entire right, title and interest in and to said application and the invention therein contained, including the right to apply for any Letters Patent in the United States of America and in any and all foreign countries on said invention, and any and all other applications for Letters Patent on said invention, in whatsoever countries, including all provisional, divisional, renewal, substitution, continuation, continuation-in-part, reissue, re-examination and Convention applications based upon said invention or upon said application, to the full end of the term or terms for which said Letters Patent may be issued, and every priority right that is or may be predicated upon or arise from said invention, said application and said Letters Patent, the same to be held and enjoyed by Cabot Corporation, its successors and assigns, the same as it would have been held and enjoyed by us if this assignment and sale had not been made.

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And we hereby authorize Cabot Corporation, to file patent applications in any or all countries on any or all of said invention in our name or in the name of Cabot Corporation, or otherwise as Cabot Corporation, may deem advisable, under any International Convention or otherwise.

And we hereby authorize the Commissioner of Patents of the United States and the empowered officials of all other governments to issue or transfer all said Letters Patent to Cabot Corporation, as assignee of the entire right, title and interest therein or otherwise as Cabot Corporation, may direct, in accordance with this instrument of assignment.

We hereby represent and warrant that there are no rights or interests inconsistent with the rights and interests granted herein and that we will not execute any instrument or grant or transfer any rights or interests inconsistent with the rights and interest granted herein, and that we, Agathagos Kyrilidis, Alexander I. Shakhnovich, Qingling Zhang and Joseph B. Carroll, have sold, assigned and transferred and do hereby sell, assign and transfer unto Cabot Corporation, its successors and assigns, any further documents or instruments and do any and all further acts that may reasonably be deemed necessary by Cabot Corporation to enable Cabot Corporation, its successors or assigns, to file applications for the invention in any country where it may elect to file such applications, and that may be necessary to vest in Cabot Corporation, its successors and assigns, the title herein conveyed or intended so to be, and to enable such title to be recorded in the United States and foreign countries where such application or applications may be filed.

And we further covenant and agree, in consideration of the premises, that we, our executors and administrators, will at any time, upon request, communicate to Cabot Corporation, its successors and assigns, any facts relating to the invention and the improvements contained therein and the history thereof, known to us or our executors and administrators, and that we will testify as to the same in any interference or other litigation when requested so to do by Cabot Corporation, its successors and assigns.

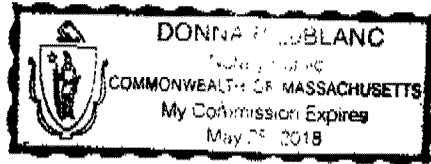
Docket No. 2010602

IN TESTIMONY WHEREOF, I, **Agathagelos Kyrilidis**, have hereunto set my hand and seal this 11 day of November, 2011.

  
\_\_\_\_\_  
**Agathagelos Kyrilidis**


COMMONWEALTH OF MASSACHUSETTS )  
 ) ss.  
COUNTY OF MIDDLESEX )

On this 11 day of November, 2011, before me personally appeared **Agathagelos Kyrilidis**, before me known and known to me to be the individual described herein and who executed the foregoing instrument, and s/he duly acknowledged to me that s/he executed the same for the purpose therein set forth.



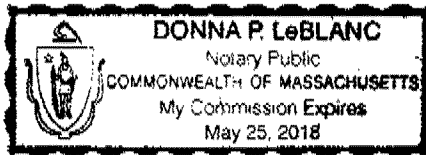
  
\_\_\_\_\_  
**NOTARY PUBLIC**  
My Commission Expires:

IN TESTIMONY WHEREOF, I, **Alexander I. Shakhnovich**, have hereunto set my hand and seal this 28 day of October, 2011.

  
\_\_\_\_\_  
**Alexander I. Shakhnovich**

COMMONWEALTH OF MASSACHUSETTS )  
 ) ss.  
COUNTY OF MIDDLESEX )

On this 28 day of OCTOBER, 2011, before me personally appeared **Alexander I. Shakhnovich**, before me known and known to me to be the individual described herein and who executed the foregoing instrument, and s/he duly acknowledged to me that s/he executed the same for the purpose therein set forth.



  
\_\_\_\_\_  
**NOTARY PUBLIC**  
My Commission Expires:



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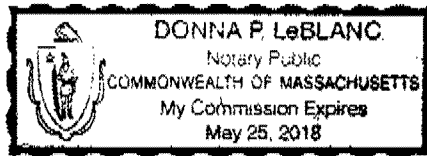
IN TESTIMONY WHEREOF, I, **Qingling Zhang**, have hereunto set my hand and seal

this 14 day of Nov, 2011.

  
\_\_\_\_\_  
**Qingling Zhang**

COMMONWEALTH OF MASSACHUSETTS )  
 ) ss.  
COUNTY OF Middlesex )

On this 14 day of November, 2011, before me personally appeared **Qingling Zhang**, before me known and known to me to be the individual described herein and who executed the foregoing instrument, and s/he duly acknowledged to me that s/he executed the same for the purpose therein set forth.



  
\_\_\_\_\_  
**NOTARY PUBLIC**  
My Commission Expires:

IN TESTIMONY WHEREOF, I, **Joseph B. Carroll**, have hereunto set my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2\_\_\_\_\_.

\_\_\_\_\_  
**Joseph B. Carroll**

COMMONWEALTH OF VIRGINIA )  
 ) ss.  
COUNTY OF \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2\_\_\_\_\_, before me personally appeared **Joseph B. Carroll**, before me known and known to me to be the individual described herein and who executed the foregoing instrument, and s/he duly acknowledged to me that s/he executed the same for the purpose therein set forth.

\_\_\_\_\_  
**NOTARY PUBLIC**  
My Commission Expires: