

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>Christopher T. Schade</td> <td>04/10/2012</td> </tr> <tr> <td>Bruce Lindsley</td> <td>04/10/2012</td> </tr> <tr> <td>Thomas F. Murphy</td> <td>04/10/2012</td> </tr> <tr> <td>Wing-Hong Chen</td> <td>04/10/2012</td> </tr> </tbody> </table>		Name	Execution Date	Christopher T. Schade	04/10/2012	Bruce Lindsley	04/10/2012	Thomas F. Murphy	04/10/2012	Wing-Hong Chen	04/10/2012
Name	Execution Date										
Christopher T. Schade	04/10/2012										
Bruce Lindsley	04/10/2012										
Thomas F. Murphy	04/10/2012										
Wing-Hong Chen	04/10/2012										
RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>Hoeganaes Corporation</td> </tr> <tr> <td>Street Address:</td> <td>1001 Taylors Lane</td> </tr> <tr> <td>City:</td> <td>Cinnaminson</td> </tr> <tr> <td>State/Country:</td> <td>NEW JERSEY</td> </tr> <tr> <td>Postal Code:</td> <td>08077</td> </tr> </table>		Name:	Hoeganaes Corporation	Street Address:	1001 Taylors Lane	City:	Cinnaminson	State/Country:	NEW JERSEY	Postal Code:	08077
Name:	Hoeganaes Corporation										
Street Address:	1001 Taylors Lane										
City:	Cinnaminson										
State/Country:	NEW JERSEY										
Postal Code:	08077										
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>13433408</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13433408						
Property Type	Number										
Application Number:	13433408										
CORRESPONDENCE DATA											
<p>Fax Number: (215)568-3439</p> <p>Phone: 215-568-3100</p> <p>Email: garonski@woodcock.com</p> <p><i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: Woodcock Washburn LLP</p> <p>Address Line 1: 2929 Arch Street</p> <p>Address Line 2: Cira Centre, 12th Floor</p> <p>Address Line 4: Philadelphia, PENNSYLVANIA 19104</p>											
ATTORNEY DOCKET NUMBER:	HOE-0973										
NAME OF SUBMITTER:	Noreen Garonski										

CH \$40.00 13433408

Total Attachments: 8

source=HOE-0973_Combined_Executed_Assignments#page1.tif

source=HOE-0973_Combined_Executed_Assignments#page2.tif

source=HOE-0973_Combined_Executed_Assignments#page3.tif

source=HOE-0973_Combined_Executed_Assignments#page4.tif

source=HOE-0973_Combined_Executed_Assignments#page5.tif

source=HOE-0973_Combined_Executed_Assignments#page6.tif

source=HOE-0973_Combined_Executed_Assignments#page7.tif

source=HOE-0973_Combined_Executed_Assignments#page8.tif

PATENT

REEL: 028051 FRAME: 0675

ASSIGNMENT

WHEREAS, I, **Christopher T. Schade** citizen of **the United States**, residing at **15 Marni Court, Marlton, New Jersey 08053**, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number **HOE-0958** ("the invention"), which is entitled **VANADIUM-CONTAINING POWDER METALLURGICAL POWDERS AND METHOD OF THEIR USE** ("the subject application"), and which claims priority to patent application number 61/472,262 filed April 6, 2011 ("the priority application"). I authorize and direct any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the final paragraph of this assignment.

AND WHEREAS, **Hoeganaes Corporation**, ASSIGNEE, having a place of business at **1001 Taylors Lane, Cinnaminson, New Jersey 08077**, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

AND I HEREBY covenant and agree that I have full right to convey my entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

AND I HEREBY further covenant and agree that I will communicate to the ASSIGNEE, its successors, legal representatives, and assigns, any facts known to me respecting the invention, and testify in any legal proceeding, sign all lawful papers, execute all disclaimers and all divisional, continuing, reissue, and foreign applications, make all rightful oaths, deliver upon request all papers, documents, affidavits, or other instruments that may be necessary or helpful in the prosecution of any application for industrial property protection describing and/or claiming the invention, and generally do everything possible to aid the ASSIGNEE, its successors, legal

DOCKET NO.: HOE-0973

representatives, and assigns, to obtain and enforce proper protection for the invention in all countries.

IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above my signature.

Executed this 10th day of April, year of 2012.

Christopher T Schade

Signature

CHRISTOPHER T. SCHADE

STATEMENT OF NOTARY PUBLIC

STATE OF New Jersey:

: SS

COUNTY OF Burlington

On this 10th day of April, year of 2012, before me personally came the above named Christopher T. Schade to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.

Judy M. Paul

Notary Public **JUDY M. PAUL**
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires Oct. 7, 2013

The foregoing assignment covers patent application number 13/433,408, filed on March 29, 2012.

Stephanie A. Barbosa

Name of Attorney: Stephanie A. Barbosa

Registration No.: 51,430

Date of Insertion: 4/16/2012

ASSIGNMENT

WHEREAS, I, **Bruce Lindsley** citizen of the **United States**, residing at **507 Lexington Drive, Cinnaminson, New Jersey 08077**, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number **HOE-0958** ("the invention"), which is entitled **VANADIUM-CONTAINING POWDER METALLURGICAL POWDERS AND METHOD OF THEIR USE** ("the subject application"), and which claims priority to patent application number **61/472,262** filed **April 6, 2011** ("the priority application"). I authorize and direct any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the final paragraph of this assignment.

AND WHEREAS, **Hoeganaes Corporation**, ASSIGNEE, having a place of business at **1001 Taylors Lane, Cinnaminson, New Jersey 08077**, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

AND I HEREBY covenant and agree that I have full right to convey my entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

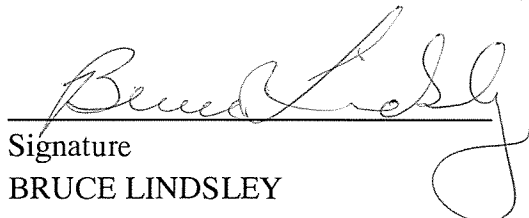
AND I HEREBY further covenant and agree that I will communicate to the ASSIGNEE, its successors, legal representatives, and assigns, any facts known to me respecting the invention, and testify in any legal proceeding, sign all lawful papers, execute all disclaimers and all divisional, continuing, reissue, and foreign applications, make all rightful oaths, deliver upon request all papers, documents, affidavits, or other instruments that may be necessary or helpful in the prosecution of any application for industrial property protection describing and/or claiming the invention, and generally do everything possible to aid the ASSIGNEE, its successors, legal

DOCKET NO.: HOE-0973

representatives, and assigns, to obtain and enforce proper protection for the invention in all countries.

IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above my signature.

Executed this 10th day of April, year of 2012.


Signature
BRUCE LINDSLEY

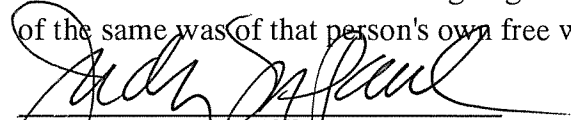
STATEMENT OF NOTARY PUBLIC

STATE OF New Jersey:

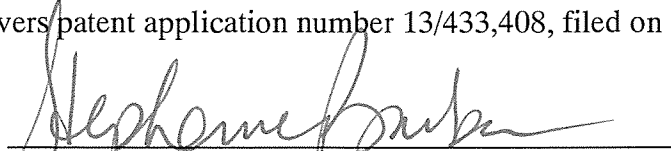
: SS

COUNTY OF Burlington:

On this 10th day of April, year of 2012, before me personally came the above named Bruce Lindsley to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.


Notary Public **JUDY M. PAUL**
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires Oct. 7, 2013

The foregoing assignment covers patent application number 13/433,408, filed on March 29, 2012.


Name of Attorney: Stephanie A. Barbosa
Registration No.: 51,430
Date of Insertion: 4/16/2012

ASSIGNMENT

WHEREAS, I, **Thomas F. Murphy** citizen of **the United States**, residing at **301 St. Peters Way, Philadelphia, Pennsylvania 19106**, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number **HOE-0958** ("the invention"), which is entitled **VANADIUM-CONTAINING POWDER METALLURGICAL POWDERS AND METHOD OF THEIR USE** ("the subject application"), and which claims priority to patent application number 61/472,262 filed April 6, 2011 ("the priority application"). I authorize and direct any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the final paragraph of this assignment.

AND WHEREAS, **Hoeganaes Corporation**, ASSIGNEE, having a place of business at **1001 Taylors Lane, Cinnaminson, New Jersey 08077**, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

AND I HEREBY covenant and agree that I have full right to convey my entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

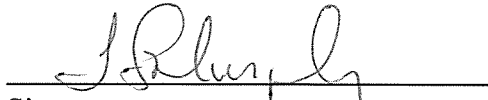
AND I HEREBY further covenant and agree that I will communicate to the ASSIGNEE, its successors, legal representatives, and assigns, any facts known to me respecting the invention, and testify in any legal proceeding, sign all lawful papers, execute all disclaimers and all divisional, continuing, reissue, and foreign applications, make all rightful oaths, deliver upon request all papers, documents, affidavits, or other instruments that may be necessary or helpful in the prosecution of any application for industrial property protection describing and/or claiming the invention, and generally do everything possible to aid the ASSIGNEE, its successors, legal

DOCKET NO.: HOE-0973

representatives, and assigns, to obtain and enforce proper protection for the invention in all countries.

IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above my signature.

Executed this 10th day of April, year of 2012.



Signature
THOMAS F. MURPHY


STATEMENT OF NOTARY PUBLIC

STATE OF New Jersey:

: SS

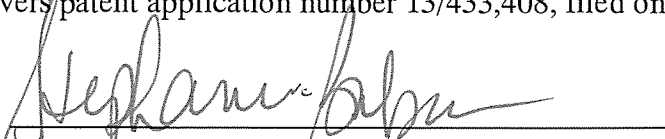
COUNTY OF Burlington:

On this 10th day of April, year of 2012, before me personally came the above named Thomas F. Murphy to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.



Notary Public **JUDY M. PAUL**
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires Oct. 7, 2013

The foregoing assignment covers patent application number 13/433,408, filed on March 29, 2012.



Name of Attorney: Stephanie A. Barbosa
Registration No.: 51,430
Date of Insertion: 4/16/2012

ASSIGNMENT

WHEREAS, I, **Wing-Hong Chen** citizen of **the United States**, residing at 286 Great Road, Maple Shade, New Jersey 08052, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number **HOE-0958** ("the invention"), which is entitled **VANADIUM-CONTAINING POWDER METALLURGICAL POWDERS AND METHOD OF THEIR USE** ("the subject application"), and which claims priority to patent application number 61/472,262, filed April 6, 2011 ("the priority application"). I authorize and direct any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the final paragraph of this assignment.

AND WHEREAS, **Hoeganaes Corporation**, ASSIGNEE, having a place of business at **1001 Taylors Lane, Cinnaminson, New Jersey 08077**, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

AND I HEREBY covenant and agree that I have full right to convey my entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

AND I HEREBY further covenant and agree that I will communicate to the ASSIGNEE, its successors, legal representatives, and assigns, any facts known to me respecting the invention, and testify in any legal proceeding, sign all lawful papers, execute all disclaimers and all divisional, continuing, reissue, and foreign applications, make all rightful oaths, deliver upon request all papers, documents, affidavits, or other instruments that may be necessary or helpful in the prosecution of any application for industrial property protection describing and/or claiming the invention, and generally do everything possible to aid the ASSIGNEE, its successors, legal

DOCKET NO.: HOE-0973

representatives, and assigns, to obtain and enforce proper protection for the invention in all countries.

IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above my signature.

Executed this 10th day of April, year of 2012.

Wing Hong Chen

Signature

WING-HONG CHEN

STATEMENT OF NOTARY PUBLIC

STATE OF New Jersey:

: SS

COUNTY OF Burlington.

On this 10th day of April, year of 2012, before me personally came the above named Wing-Hong Chen to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.

Judy M. Paul
Notary Public **JUDY M. PAUL**
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires Oct. 7, 2013

The foregoing assignment covers patent application number 13/433,408, filed on March 29, 2012.

Stephanie A. Barbosa

Name of Attorney: Stephanie A. Barbosa

Registration No.: 51,430

Date of Insertion: 4/16/2012