

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5215166

<b>SUBMISSION TYPE:</b>	RESUBMISSION
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>RESUBMIT DOCUMENT ID:</b>	504917422
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
PIERRE-ALAIN S. AUROUX	08/29/2017
CHRISTOPHER S. BADORREK	10/31/2017
MICHAEL J. BOWERS II	08/29/2017
MYEONGSEOB KIM	08/29/2017
TADD C. KIPPENY	10/31/2017
LAURA A. SWAFFORD	11/11/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	BAE SYSTEMS INFORMATION AND ELECTRONIC SYSTEMS INTEGRATION INC.
<b>Street Address:</b>	P.O. BOX 868
<b>Internal Address:</b>	NHQ1-719
<b>City:</b>	NASHUA
<b>State/Country:</b>	NEW HAMPSHIRE
<b>Postal Code:</b>	03061-0868
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15690358
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(603)226-7499
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	603-885-2643
<b>Email:</b>	cpickering@nhpat.com
<b>Correspondent Name:</b>	BAE SYSTEMS
<b>Address Line 1:</b>	P.O. BOX 868
<b>Address Line 2:</b>	NHQ1-719
<b>Address Line 4:</b>	NASHUA, NEW HAMPSHIRE 03061-0868
<b>ATTORNEY DOCKET NUMBER:</b>	15-3412
<b>NAME OF SUBMITTER:</b>	KIMBERLY A. PEASLEE

<b>SIGNATURE:</b>	/Kimberly A. PEASLEE/
<b>DATE SIGNED:</b>	10/31/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).
<b>Total Attachments: 10</b> source=p63aus-assignment re-recording.103118#page1.tif source=p63aus-assignment re-recording.103118#page2.tif source=p63aus-assignment re-recording.103118#page3.tif source=p63aus-assignment re-recording.103118#page4.tif source=p63aus-assignment re-recording.103118#page5.tif source=p63aus-assignment re-recording.103118#page6.tif source=p63aus-assignment re-recording.103118#page7.tif source=p63aus-assignment re-recording.103118#page8.tif source=p63aus-assignment re-recording.103118#page9.tif source=p63aus-assignment re-recording.103118#page10.tif	

504917422 05/16/2018

**PATENT ASSIGNMENT COVER SHEET**

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4964167

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT

**CONVEYING PARTY DATA**

Name	Execution Date
PIERRE-ALAIN S. AUROUX	08/29/2017
CHRISTOPHER S. BADORREK	10/31/2017
MICHAEL J. BOWERS II	08/29/2017
MYEONGSEOB KIM	08/29/2017
TADD C. KIPPENY	10/31/2017
LAURA A. SWAFFORD	11/11/2017

**RECEIVING PARTY DATA**

<b>Name:</b>	BAE SYSTEMS INFORMATION AND ELECTRONIC SYSTEMS INTEGRATION INC.
<b>Street Address:</b>	P.O. BOX 868
<b>Internal Address:</b>	NHQ1-719
<b>City:</b>	NASHUA
<b>State/Country:</b>	NEW HAMPSHIRE
<b>Postal Code:</b>	03061-0868

**PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15690358

**CORRESPONDENCE DATA**

Fax Number: (603)226-7499  
*Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*  
 Phone: 603-885-2643  
 Email: cpickering@nhpat.com  
 Correspondent Name: BAE SYSTEMS  
 Address Line 1: P.O. BOX 868  
 Address Line 2: NHQ1-719  
 Address Line 4: NASHUA, NEW HAMPSHIRE 03061-0868

<b>ATTORNEY DOCKET NUMBER:</b>	15-3412
<b>NAME OF SUBMITTER:</b>	KIMBERLY A. PEASLEE
<b>SIGNATURE:</b>	/Kimberly A. Peaslee/

## ASSIGNMENT OF PATENT APPLICATION

FOR GOOD AND VALUABLE CONSIDERATION,

We, the undersigned, hereby agree to assign for good and valuable consideration, receipt of which is hereby expressly acknowledged, and do hereby sell, assign and transfer unto

BAE SYSTEMS Information and Electronic Systems Integration Inc.  
P.O. Box 868  
NHQ1-719  
Nashua, NH 03061-0868

a corporation organized under the laws of the state of Delaware as Assignee, and its successors, assigns and legal representatives, all my right, title and interest, for all countries in and to (i) certain inventions relating to

## CARBIDE DERIVED CARBON FOR USE IN CHEMICAL SCRUBBERS

described in a United States patent application, identified as Attorney Docket No. BAESYS P63AUS, at Davis & Bujold PLLC, 112 Pleasant Street, Concord, New Hampshire 03301 and the invention(s) and improvement(s) set forth therein, and (ii) said patent application, any patent application claiming the benefit thereof, and any and all continuations, continuations-in-part, divisionals, and renewals of and substitutes for said patent application, and (iii) all the rights and privileges under any and all patents that may be granted therefor in any country, and any reissues, or reexaminations, or extensions of said patents. We request that any and all patents for said inventions be issued to said Assignee, its successors, assigns and legal representatives, or to such nominees as it may designate.

We agree that, when requested, we will, without charge to said Assignee but at its expense, sign all papers, take all rightful oaths, and do all acts that may be necessary, desirable or convenient for securing and maintaining patents for said inventions in any and all countries and for vesting title thereto in said Assignee, its successors, assigns and legal representatives or nominees.

We authorize and empower said Assignee, its successors, assigns and legal representatives or nominees, to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from me.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document that may be required in any country for any purpose and more particularly in proof of the right of the said Assignee or nominee to claim the aforesaid benefit of the right of priority provided by the International convention which may henceforth be substituted for it.

We covenant with said Assignee, its successors, assigns and legal representatives, that the rights and property herein conveyed are free and clear of any encumbrance, and that we have full right to convey the same as herein expressed.

As the below inventors, we hereby declare that:

This declaration is directed to:

The attached application, or  
 United States application 15/690,358 filed on August 30, 2017.

The above-identified application was made or authorized to be made by us.

We believe that we are the original inventors or original joint inventors of a claimed invention in the application.

We hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

IN WITNESS WHEREOF, we, Louise C. SENGUPTA, Pierre-Alain S. AUROUX, Christopher S. BADORREK, Michael J. BOWERS II, Myeongseob KIM, John E. KING, Tadd C. KIPPENY and Laura A. SWAFFORD, have hereunto signed our names on the day and year set forth below.

\_\_\_\_\_  
Inventor's Signature

\_\_\_\_\_  
DATE

Louise C. SENGUPTA  
Inventor's Printed Name



Inventor's Signature

Pierre-Alain S. AUROUX  
Inventor's Printed Name

8/29/17

DATE

Inventor's Signature

Christopher S. BADORREK  
Inventor's Printed Name

DATE



Inventor's Signature

Michael J. ROWERS II  
Inventor's Printed Name

8/29/2017

DATE



Inventor's Signature

Myoungsoob KIM  
Inventor's Printed Name

8/29/2017

DATE

Inventor's Signature

John E. KING  
Inventor's Printed Name

DATE

Inventor's Signature

Tedd C. KIPPENY  
Inventor's Printed Name

DATE

Inventor's Signature

Laura A. SWAFFORD  
Inventor's Printed Name

DATE

**ASSIGNMENT OF PATENT APPLICATION**

FOR GOOD AND VALUABLE CONSIDERATION,

We, the undersigned, hereby agree to assign for good and valuable consideration, receipt of which is hereby expressly acknowledged, and do hereby sell, assign and transfer unto

BAE SYSTEMS Information and Electronic Systems Integration Inc.  
P.O. Box 868  
NHQ1-719  
Nashua, NH 03061-0868

a corporation organized under the laws of the state of Delaware as Assignee, and its successors, assigns and legal representatives, all my right, title and interest, for all countries in and to (i) certain inventions relating to

**CARBIDE DERIVED CARBON FOR USE IN CHEMICAL SCRUBBERS**

described in a United States patent application, identified as Attorney Docket No. BAESYS P63AUS, at Davis & Bujold PLLC, 112 Pleasant Street, Concord, New Hampshire 03301 and the invention(s) and improvement(s) set forth therein, and (ii) said patent application, any patent application claiming the benefit thereof, and any and all continuations, continuations-in-part, divisionals, and renewals of and substitutes for said patent application, and (iii) all the rights and privileges under any and all patents that may be granted therefor in any country, and any reissues, or reexaminations, or extensions of said patents. We request that any and all patents for said inventions be issued to said Assignee, its successors, assigns and legal representatives, or to such nominees as it may designate.

We agree that, when requested, we will, without charge to said Assignee but at its expense, sign all papers, take all rightful oaths, and do all acts that may be necessary, desirable or convenient for securing and maintaining patents for said inventions in any and all countries and for vesting title thereto in said Assignee, its successors, assigns and legal representatives or nominees.

We authorize and empower said Assignee, its successors, assigns and legal representatives or nominees, to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from me.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document that may be required in any country for any purpose and more particularly in proof of the right of the said Assignee or nominee to claim the aforesaid benefit of the right of priority provided by the International convention which may henceforth be substituted for it.

We covenant with said Assignee, its successors, assigns and legal representatives, that the rights and property herein conveyed are free and clear of any encumbrance, and that we have full right to convey the same as herein expressed.

As the below inventors, we hereby declare that:

This declaration is directed to:

   The attached application, or  
  x   United States application 15/690,358 filed on August 30, 2017.

The above-identified application was made or authorized to be made by us.

We believe that we are the original inventors or original joint inventors of a claimed invention in the application.

We hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

IN WITNESS WHEREOF, we, Louise C. SENGUPTA, Pierre-Alain S. AUROUX, Christopher S. BADORREK, Michael J. BOWERS II, Mycongscob KIM, John E. KING, Tadd C. KIPPENY and Laura A. SWAFFORD, have hereunto signed our names on the day and year set forth below.

\_\_\_\_\_  
Inventor's Signature

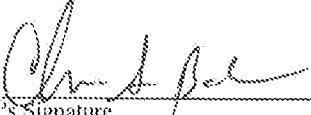
\_\_\_\_\_  
DATE

Louise C. SENGUPTA  
Inventor's Printed Name

.....  
Inventor's Signature

.....  
DATE

.....  
Pierre-Alain S. AUROUX  
Inventor's Printed Name

.....  
  
Inventor's Signature

.....  
10/31/17  
DATE

.....  
Christopher S. BADORREK  
Inventor's Printed Name

.....  
Inventor's Signature

.....  
DATE

.....  
Michael J. BOWERS II  
Inventor's Printed Name

.....  
Inventor's Signature

.....  
DATE

.....  
Myeongseob KIM  
Inventor's Printed Name

.....  
Inventor's Signature

.....  
DATE

.....  
John E. KING  
Inventor's Printed Name

.....  
Inventor's Signature

.....  
DATE

.....  
Tadd C. KIPPENY  
Inventor's Printed Name

.....  
Inventor's Signature

.....  
DATE

.....  
Laura A. SWAFFORD  
Inventor's Printed Name

**ASSIGNMENT OF PATENT APPLICATION**

FOR GOOD AND VALUABLE CONSIDERATION,

We, the undersigned, hereby agree to assign for good and valuable consideration, receipt of which is hereby expressly acknowledged, and do hereby sell, assign and transfer unto

BAE SYSTEMS Information and Electronic Systems Integration Inc.  
P.O. Box 868  
NHQ1-719  
Nashua, NH 03061-0868

a corporation organized under the laws of the state of Delaware as Assignee, and its successors, assigns and legal representatives, all my right, title and interest, for all countries in and to (i) certain inventions relating to

**CARBIDE DERIVED CARBON FOR USE IN CHEMICAL SCRUBBERS**

described in a United States patent application, identified as Attorney Docket No. BAESYS P63AUS, at Davis & Bujold PLLC, 112 Pleasant Street, Concord, New Hampshire 03301 and the invention(s) and improvement(s) set forth therein, and (ii) said patent application, any patent application claiming the benefit thereof, and any and all continuations, continuations-in-part, divisionals, and renewals of and substitutes for said patent application, and (iii) all the rights and privileges under any and all patents that may be granted therefor in any country, and any reissues, or reexaminations, or extensions of said patents. We request that any and all patents for said inventions be issued to said Assignee, its successors, assigns and legal representatives, or to such nominees as it may designate.

We agree that, when requested, we will, without charge to said Assignee but at its expense, sign all papers, take all rightful oaths, and do all acts that may be necessary, desirable or convenient for securing and maintaining patents for said inventions in any and all countries and for vesting title thereto in said Assignee, its successors, assigns and legal representatives or nominees.

We authorize and empower said Assignee, its successors, assigns and legal representatives or nominees, to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from me.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document that may be required in any country for any purpose and more particularly in proof of the right of the said Assignee or nominee to claim the aforesaid benefit of the right of priority provided by the International convention which may henceforth be substituted for it.

We covenant with said Assignee, its successors, assigns and legal representatives, that the rights and property herein conveyed are free and clear of any encumbrance, and that we have full right to convey the same as herein expressed.

As the below inventors, we hereby declare that:

This declaration is directed to:

The attached application, or  
 United States application 15/690,358 filed on August 30, 2017.

The above-identified application was made or authorized to be made by us.

We believe that we are the original inventors or original joint inventors of a claimed invention in the application.

We hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

IN WITNESS WHEREOF, we, Louise C. SENGUPTA, Pierre-Alain S. AUROUX, Christopher S. BADORREK, Michael J. BOWERS II, Myeongseob KIM, John E. KING, Tadd C. KIPPENY and Laura A. SWAFFORD, have hereunto signed our names on the day and year set forth below.

\_\_\_\_\_  
Inventor's Signature

\_\_\_\_\_  
DATE

\_\_\_\_\_  
Louise C. SENGUPTA  
Inventor's Printed Name



\_\_\_\_\_  
Inventor's Signature  
Pierre-Alain S. AUROUX  
\_\_\_\_\_  
Inventor's Printed Name

\_\_\_\_\_  
DATE

\_\_\_\_\_  
Inventor's Signature  
Christopher S. BADORREK  
\_\_\_\_\_  
Inventor's Printed Name

\_\_\_\_\_  
DATE

\_\_\_\_\_  
Inventor's Signature  
Michael J. BOWERS II  
\_\_\_\_\_  
Inventor's Printed Name

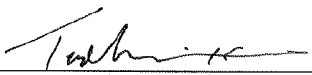
\_\_\_\_\_  
DATE

\_\_\_\_\_  
Inventor's Signature  
Myeongseob KIM  
\_\_\_\_\_  
Inventor's Printed Name

\_\_\_\_\_  
DATE

\_\_\_\_\_  
Inventor's Signature  
John E. KING  
\_\_\_\_\_  
Inventor's Printed Name

\_\_\_\_\_  
DATE

  
\_\_\_\_\_  
Inventor's Signature  
Tadd C. KIPPENY  
\_\_\_\_\_  
Inventor's Printed Name

\_\_\_\_\_  
DATE 10/31/2014

\_\_\_\_\_  
Inventor's Signature  
Laura A. SWAFFORD  
\_\_\_\_\_  
Inventor's Printed Name

\_\_\_\_\_  
DATE

**ASSIGNMENT OF PATENT APPLICATION**

FOR GOOD AND VALUABLE CONSIDERATION,

We, the undersigned, hereby agree to assign for good and valuable consideration, receipt of which is hereby expressly acknowledged, and do hereby sell, assign and transfer unto

BAE SYSTEMS Information and Electronic Systems Integration Inc.  
P.O. Box 868  
NHQ1-719  
Nashua, NH 03061-0868

a corporation organized under the laws of the state of Delaware as Assignee, and its successors, assigns and legal representatives, all my right, title and interest, for all countries in and to (i) certain inventions relating to

**CARBIDE DERIVED CARBON FOR USE IN CHEMICAL SCRUBBERS**

described in a United States patent application, identified as Attorney Docket No. BAESYS P63AUS, at Davis & Bujold PLLC, 112 Pleasant Street, Concord, New Hampshire 03301 and the invention(s) and improvement(s) set forth therein, and (ii) said patent application, any patent application claiming the benefit thereof, and any and all continuations, continuations-in-part, divisionals, and renewals of and substitutes for said patent application, and (iii) all the rights and privileges under any and all patents that may be granted therefor in any country, and any reissues, or reexaminations, or extensions of said patents. We request that any and all patents for said inventions be issued to said Assignee, its successors, assigns and legal representatives, or to such nominees as it may designate.

We agree that, when requested, we will, without charge to said Assignee but at its expense, sign all papers, take all rightful oaths, and do all acts that may be necessary, desirable or convenient for securing and maintaining patents for said inventions in any and all countries and for vesting title thereto in said Assignee, its successors, assigns and legal representatives or nominees.

We authorize and empower said Assignee, its successors, assigns and legal representatives or nominees, to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from me.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document that may be required in any country for any purpose and more particularly in proof of the right of the said Assignee or nominee to claim the aforesaid benefit of the right of priority provided by the International convention which may henceforth be substituted for it.

We covenant with said Assignee, its successors, assigns and legal representatives, that the rights and property herein conveyed are free and clear of any encumbrance, and that we have full right to convey the same as herein expressed.

As the below inventors, we hereby declare that:

This declaration is directed to:

The attached application, or  
 United States application 15/690,358 filed on August 30, 2017.

The above-identified application was made or authorized to be made by us.

We believe that we are the original inventors or original joint inventors of a claimed invention in the application.

We hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

IN WITNESS WHEREOF, we, Louise C. SENGUPTA, Pierre-Alain S. AUROUX, Christopher S. BADORREK, Michael J. BOWERS II, Myeongseob KIM, John E. KING, Tadd C. KIPPENY and Laura A. SWAFFORD, have hereunto signed our names on the day and year set forth below.

\_\_\_\_\_  
Inventor's Signature

\_\_\_\_\_  
DATE

Louise C. SENGUPTA  
\_\_\_\_\_  
Inventor's Printed Name

\_\_\_\_\_  
Inventor's Signature  
Pierre-Alain S. AUROUX  
Inventor's Printed Name

\_\_\_\_\_  
DATE

\_\_\_\_\_  
Inventor's Signature  
Christopher S. BADORREK  
Inventor's Printed Name

\_\_\_\_\_  
DATE

\_\_\_\_\_  
Inventor's Signature  
Michael J. BOWERS II  
Inventor's Printed Name

\_\_\_\_\_  
DATE

\_\_\_\_\_  
Inventor's Signature  
Myeongseob KIM  
Inventor's Printed Name

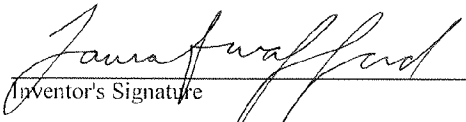
\_\_\_\_\_  
DATE

\_\_\_\_\_  
Inventor's Signature  
John E. KING  
Inventor's Printed Name

\_\_\_\_\_  
DATE

\_\_\_\_\_  
Inventor's Signature  
Tadd C. KIPPENY  
Inventor's Printed Name

\_\_\_\_\_  
DATE

  
\_\_\_\_\_  
Inventor's Signature  
Laura A. SWAFFORD  
Inventor's Printed Name

11/11/17  
\_\_\_\_\_  
DATE