PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DANIEL J. HOFFMAN	01/23/2012
DANIEL CARTER	01/23/2012
VICTOR BROUK	01/23/2012
KAREN PETERSON	01/23/2012
RANDY GRILLEY	01/23/2012

RECEIVING PARTY DATA

Name:	ADVANCED ENERGY INDUSTRIES, INC
Street Address:	1625 SHARP POINT DRIVE
City:	FORT COLLINS
State/Country:	COLORADO
Postal Code:	80525

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14227583

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	AE2010-015CON
NAME OF SUBMITTER:	SEAN R. O'DOWD
SIGNATURE:	/Sean R. O'Dowd/
DATE SIGNED:	04/09/2014

Total Attachments: 3

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PATENT REEL: 032638 FRAME: 0970 source=AE2010_015US_Assignment_Signed#page2.tif source=AE2010_015US_Assignment_Signed#page3.tif

PATENT REEL: 032638 FRAME: 0971

ASSIGNMENT OF PATENT APPLICATION

FOR GOOD AND VALUABLE CONSIDERATION,

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

Advanced Energy Industries, Inc.

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

ELECTROSTATIC REMOTE PLASMA SOURCE

described in an application for Letters Patent of the United States, identified as Attorney Docket No. $\frac{AE2010.015US}{AE2010.015US}$, at Neugeboren O'Dowd PC, 1227 Spruce Street, Suite 200, Boulder, CO 80302 and filed on $\frac{01/23/2012}{AE2010.015US}$, as Application Serial No. $\frac{13/356546}{AE2010.015US}$, and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part, divisionals, and renewals of and substitutes for said application for said Letters Patent, and all the rights and privileges under any and all Letters Patent that may be granted therefor in any country, and any reissues, or reexaminations, or extensions of said Letters Patent. We request that any and all Letters Patent 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 which 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 the said Assignce, 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 us.

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 which may be required in any country for any purpose and more particularly in proof of the right of the said Assignce 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 hereby authorize Sean R. O'Dowd, attorney for Assignee, to insert the filing date and Serial number into the first paragraph of this assignment, after the application for Letters Patent has been filed, and the U.S. Patent Office has assigned such application a Serial Number.

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.

IN WITNESS WHEREOF, we have hereunto signed our names on the day and year set forth below.

Daniel J Hoffman	1-23-12
Inventor's Signature	DATE
Daniel J. Hoffman	
Inventor's Printed Name	
STATE OF)	
COUNTY OF) SS	
On this day of day of definition of the basis of satisfactory evider he/she executed the same of his/her own free will for the	. 2012, before me personally came the above named <u>Daniel J. Hoffman</u> who is personally known by nee to be the same individual who executed the foregoing assignment, and who acknowledged to me that the use and purposes therein set forth.
OTAR;	NOTARY PUBLIC My Copunission Expires: 9-23-2013
War AUBLICE	

My Commission Expires 09/23/2013

Page 1 of 3

Inventor's Signature	1-23-12 DATE	TAA;
Daniel Carter Inventor's Printed Name	_	OF COLOR
STATE OF COUNTY OF On this	, 2012 , before me personally came the abov	My Commission Expires 09/23/2013 re named Daniel Carter who is personally known by me
he/she executed the same of his/her own free will for th	no be the same morvioual who executed the form the use and purposes therein set forth. NOTARY PU. My Commission	iles K. anderson
Inventor's Signature Victor Brouk Inventor's Printed Name	1/23/2012	My Commission Expires 09/23/2013
STATE OF COUNTY OF On this 3 day of 3 NOT TO NOT TO BE A STATE OF proved to me on the basis of satisfactory evidence to be executed the same of his/her own free will for the use a	DDD, before me personally came the above to the same individual who executed the foregoing and purposes therein set forth. NOTARY PURMY Commission	when R anderson

Inventor's Signature Karen Peterson Inventor's Printed Name STATE OF COUNTY OF On this 23 day of January, 20 or proved to me on the basis of satisfactory evidence to be he/she executed the same of his/her own free will for the use	DATE My Commission Expires 09/23/2013 My Commission Expires 09/23/2013 Description of the same individual who executed the foregoing assignment, and who acknowledged to mand purposes therein set forth. NOT RY PUBLIC My commission Expires: 9-23-2013	by me e that
Invertor's Signature Randy Grilley Inventor's Printed Name STATE OF COUNTY OF On this 23 day of CANUOL or proved to me on the basis of satisfactory evidence to be the/she executed the same of his/her own free will for the use a same of his/her own free will for the use as the	DATE DATE	by me e that