503394013 07/15/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT3440638

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MELODY E. GRUBBS	07/07/2015
ANDRE E. BERGHMANS	07/13/2015
MATTHEW J. WALKER	07/07/2015
MONICA P. LILLY	07/13/2015

RECEIVING PARTY DATA

Name:	NORTHROP GRUMMAN SYSTEMS CORPORATION
Street Address:	2980 FAIRVIEW PARK DRIVE
City:	FALLS CHURCH
State/Country:	VIRGINIA
Postal Code:	22042-4511

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14800431

CORRESPONDENCE DATA

Fax Number: (216)621-4072

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: 216-621-2234 Email: rkline@tarolli.com

TAROLLI, SUNDHEIM, COVELL & TUMMINO LLP **Correspondent Name:**

1300 EAST NINTH STREET Address Line 1:

SUITE 1700 Address Line 2:

Address Line 4: CLEVELAND, OHIO 44114

ATTORNEY DOCKET NUMBER:	NG(ES)024211 US PRI	
NAME OF SUBMITTER:	CHRISTOPHER P. HARRIS	
SIGNATURE:	/Christopher P Harris/	
DATE SIGNED:	07/15/2015	

Total Attachments: 3

source=ES024211Assignment#page1.tif source=ES024211Assignment#page2.tif

source=ES024211Assignment#page3.tif

ASSIGNMENT

WHEREAS, I, Melody E. Grubbs, together with Andre E. Berghmans, Matthew J. Walker and Monica P. Lilly, hereinafter referred to as Assignor have jointly invented certain new and useful improvements in A METHOD FOR GROWING CARBON NANOTUBES, described in an application for United States Letters Patent, executed by me on the date as stated below;

WHEREAS, Northrop Grumman Systems Corporation, a Delaware corporation, having its principal place of business at 2980 Fairview Park Drive, Falls Church, VA 22042-4511, United States of America, hereinafter referred to as Assignee, is desirous of acquiring the entire right, title and interest in, to and under said improvements and said application:

NOW, THEREFORE, in consideration of Assignor's obligations to Northrop Grumman Systems Corporation, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, Assignor's entire right, title and interest in, to and under said improvements, and said application and all divisions, renewals, continuations, and continuations-in-part thereof, and all United States Letters patent that may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent that may hereafter be filed for said improvements in any country or countries foreign to the United States, including the full right to claim for any such application the priority benefits of the International Convention for the Protection of Industrial Property and other priority-conferring treaties, and all Letters Patent that may be granted for said improvements in any country or countries foreign to the United States and all extensions, divisions, continuations, continuations-in-part, renewals and reissues thereof; and Assignor hereby authorizes and requests 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 patents on applications as aforesaid, to issue all Letters Patent for said improvements to said Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

Assignor hereby acknowledges that at the time of making the improvements herein identified, Assignor was under an obligation to assign to Assignee, Assignor's entire right, title and interest in, to and under said improvements;

Assignor hereby covenants that Assignor has full right to convey the interest herein assigned, and that Assignor has not executed, and will not execute, any agreement in conflict herewith and that Assignee, Northrop Grumman Systems Corporation, its successors, assigns and other legal representatives shall have the right to hold and enjoy for its and their own use and benefit, to the end of the term or terms for which such Letters Patent shall or may be granted, reissued or extended as fully and completely as the same right could have been held and enjoyed by Assignor had this Assignment not been made.

Assignor hereby further covenants and agrees to communicate to Assignee, its successors, legal representatives and assigns, any and all facts known to Assignor respecting said improvements; to promptly provide Assignee with all documents relating to said improvements, said invention, and said Letters Patent as may be known or accessible to Assignor; to testify as to the same in any interference or litigation or other legal proceedings related thereto; to sign all lawful papers, execute all extensions, continuations, continuations-in-part, divisional and reissue applications; and to make all rightful oaths or declarations and generally do everything possible to aid Assignee, its successors, legal representatives and assigns in obtaining and enforcing all the rights herein conveyed for said improvements in all countries without further compensation, but at the expense of Assignee, its successors, legal representatives and assigns.

IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.
STATE OF MARYLAND) (COUNTY OF) (COUNTY OF) (COUNTY OF
I certify under PENALTY OF PERJURY under the laws of the State of Maryland that the foregoing paragraph is true and correct.
WITNESS my hand and official seal.

PATENT REEL: 036100 FRAME: 0375

(SEAL)

MARYLAND MY COMMISSION EXPIRES AUGUST 9, 2018

IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this day of the day
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.
STATE OF MARYLAND)
COUNTY OF arreary's del
On Stell 13, 2015 before me, Mary Ostarl ., personally appeared Andre E. Berghmans, proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to this instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument to be the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJURY under the laws of the State of Maryland that the foregoing paragraph is true and correct.
WITNESS my hand and official seal.
MARY J STANLEY NINGTARY PUBLIC CARROLL COUNTY MARYLAND MY COMMISSION EXPIRES AUGUST 9, 2018 (SEAL)
IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.
STATE OF MARYLAND)
COUNTY OF and Curyandel
On Malker, proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to this instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument to be the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJURY under the laws of the State of Maryland that the foregoing paragraph is true and correct.
WITNESS my hand and official seal.
Mary of Steenley Notary's Signature (SEAL)
Notary's Signature (SEAL)

Page 2 of 3

IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this 13th day of the
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.
COUNTY OF
Notary's Signature (SEAL)
MADY I OTANIEY

MARY J. STANLEY

NOTARY PUBLIC

CARROLL COUNTY

MARYLAND

MY COMMISSION EXPIRES AUGUST 9, 2018

RECORDED: 07/15/2015

Page 3 of 3