

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Richard Franklin Perez	02/17/2010
Michael A. DiGiuseppe	02/17/2010
RECEIVING PARTY DATA	
Name:	Northrop Grumman Systems Corporation
Street Address:	1840 Century Park East
City:	Los Angeles
State/Country:	CALIFORNIA
Postal Code:	90067
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	11477253
CORRESPONDENCE DATA	
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ATTORNEY DOCKET NUMBER:	NORT 78213
NAME OF SUBMITTER:	Alan G. Towner
Total Attachments: 2	
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PATENT
REEL: 023969 FRAME: 0084

ASSIGNMENT
(Multiple Inventors)

WHEREAS, I, RICHARD FRANKLIN PEREZ
together with MICHAEL A. DIGIUSEPPE
, hereinafter referred to as Assignor have jointly invented certain new and useful improvements in
APPARATUS FOR IN-SITU MICROWAVE CONSOLIDATION OF PLANETARY MATERIALS
CONTAINING NANO-SIZED METALLIC IRON PARTICLES
described in an application for United States Letters Patent bearing Serial No. 11/477,253 and having a filing date of
June 29, 2006;

WHEREAS, Northrop Grumman Systems Corporation, a Delaware corporation, having its principal place
of business at

1840 Century Park East
Los Angeles, CA 90067
United States of America

, hereinafter referred to as Assignee, is desirous of acquiring our 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 17 day of FEBRUARY, 2010.

Richard Franklin Perez
RICHARD FRANKLIN PEREZ

STATE OF NEW YORK)
COUNTY OF SUFFOLK) ss

On 17 before me, RICHARD FRANKLIN PEREZ, personally appeared RICHARD FRANKLIN PEREZ, 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 NEW YORK that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

Laura Anderson
Notary's Signature



Laura Anderson
Notary Public, State of New York
No. 01AN600693
Qualified in Suffolk County
Commission Expires Dec. 22, 2013

IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this 17 day of FEBRUARY, 2010.

Michael A. DiGiuseppe
MICHAEL A. DIGIUSEPPE

STATE OF NEW YORK)
COUNTY OF SUFFOLK) ss

On 17 before me, MICHAEL A. DIGIUSEPPE, personally appeared MICHAEL A. DIGIUSEPPE, 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 NEW YORK that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

Laura Anderson
Notary's Signature



Laura Anderson
Notary Public, State of New York
No. 01AN600693
Qualified in Suffolk County
Commission Expires Dec. 22, 2013

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