

RECC

10-13-1999



SHEET

U.S. Department of Commerce

Patent and Trademark Office

101169327

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Robert K. WILLIAMS  
Mariappan PARANTHAMAN  
Thomas G. CHIRAYIL  
Dominic F. LEE  
Amit GOYAL  
Roeland FEENSTRA

9.29.99

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 2. Name and address of receiving party(ies):

Name: LOCKHEED MARTIN ENERGY RESEARCH CORPORATION

Street Address: Bethel Valley Road  
P.O. Box 2008  
Oak Ridge, TN 37831-6255

Additional name(s) & address(es) attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name

Execution Date: September 29, 1999

## 4. Application number(s) or patent number(s):

09408235

If this document is being filed with a new application, the execution date is: September 29, 1999

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Gregory A. Nelson, Esq.

Internal Address: \_\_\_\_\_

Street Address: QUARLES & BRADY LLP  
222 Lakeview Avenue - Suite 400  
P.O. Box 3188  
West Palm Beach, FL 33402-3188

## 6. Total number of applications and patents involved:

1

## 7. Total Fee (37 CFR 34) .....\$40.00

- ☒ Enclosed  
☐ Authorized to be charged to deposit account

## 8. Deposit account number


17-0055

(Attach duplicate copy of this page if paying by deposit account)

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## 9. Statement and signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

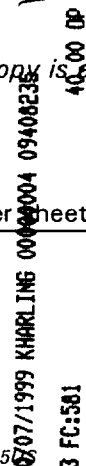
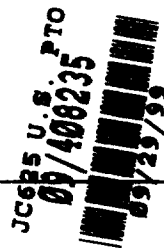
  
Scott D. Paul, Registration No. 42,984

9-29-99

Date

Total number of pages including cover sheet: 6

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents and Trademarks, Box Assignments  
Washington, D.C. 20231



## ASSIGNMENT

WHEREAS, WE, the below-named inventors whose residence and post office are as stated below, have invented certain new and useful improvements in a

**METHOD OF DEPOSITING RARE EARTH ZIRCONIUM OXIDE  
BUFFER LAYERS ON BIAXIALLY TEXTURED METAL SUBSTRATES**

for which an application for United States Letters Patent was executed by us on even date herewith, and

WHEREAS, LOCKHEED MARTIN ENERGY RESEARCH CORPORATION, a corporation of the State of Delaware, having an office at Oak Ridge National Laboratory, Post Office Box 2008, Oak Ridge, Tennessee 37831-6255, hereinafter called the ASSIGNEE, is desirous of acquiring the entire right, title and interest in the application and invention and to any Letters Patent that may be granted therefor in the United States of America and in any and all foreign countries.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we hereby assign to ASSIGNEE the entire right, title and interest in the application and the invention, to all rights of priority thereto pursuant to the International Convention for the Protection of Industrial Property, and in any Letters Patent on the invention that may be granted in the United States of America and in any and all foreign countries, including any and all Letters Patent that are divisions, reissues, continuations, substitutions or extensions of any Letters Patent or applications therefor on the invention.

We hereby authorize and request the Commissioner of the United States Patent and Trademark Office and the officials of any and all foreign countries to issue any and all of said Letters Patent, when granted, to the ASSIGNEE.

Further, we hereby agree to communicate to said ASSIGNEE or its representatives any facts known to us respecting said invention, to testify in any legal proceedings, sign all lawful papers, execute all divisional,

continuation, substitution, renewal and reissue applications, to execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, and to make all rightful oaths and generally do everything possible to aid said ASSIGNEE and its representatives to obtain and enforce proper protection for said invention in the United States of America and in any and all foreign countries.

We further agree that the terms, covenants and conditions of this assignment shall inure to the benefit of ASSIGNEE, its successors, assigns, and legal representatives, and shall be binding on us, our heirs, legal representatives, and assigns.

Full name of first inventor: Robert K. Williams

Signature: Robert K. Williams Date: 9/29/99

Residence: Knoxville Tennessee

Post Office Address: 9304 Oaklawn Cr. Knoxville TN 37922

State of Tennessee )  
County of Blount )

On this 29 day of SEPTEMBER, 1999, before me, a Notary Public in and for the County and State aforesaid, appeared Robert K. Williams to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.

  
Notary Public

SEAL

My Commission Expires:

MY COMMISSION EXPIRES  
JUNE 12, 2002

Full name of second inventor: Mariappan Paranthaman

Signature: Mariappan Paranthaman Date: 9/29/99

Residence: Knoxville, Tennessee

Post Office Address: 1117 Oak Haven Road, Knoxville, TN, 37932

State of Tennessee )

County of DAVIE )

On this 29 day of SEPTEMBER, 1999, before me, a Notary Public in and for the County and State aforesaid, appeared Mariappan Paranthaman to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.

  
 Notary Public

MY COMMISSION EXPIRES  
JUNE 12, 2002

SEAL

My Commission Expires:

Full name of third inventor: Thomas G. Chirayil

Signature: Thomas Chirayil Date: 9/29/99

Residence: Knoxville, Tennessee

Post Office Address: 8809 Eagle Pointe Drive, Knoxville, TN, 37931

State of Tennessee )

County of DAVIE )

On this 29 day of SEPTEMBER, 1999, before me, a Notary Public in and for the County and State aforesaid, appeared Thomas G. Chirayil to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.

  
 Notary Public

MY COMMISSION EXPIRES  
JUNE 12, 2002

SEAL

My Commission Expires:

Full name of fourth inventor: Dominic F. Lee

Signature: Dominic F. Lee Date: 9/29/99

Residence: Knoxville, Tennessee

Post Office Address: ~~9028 Countrywood, Apt D, Knoxville, Tennessee, 37923~~  
8818 Eagle Pointe Drive, Knoxville, Tennessee, 37931

State of Tennessee )

County of ROANE )

On this 29 day of SEPTEMBER, 1999, before me, a Notary Public in and for the County and State aforesaid, appeared Dominic F. Lee to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.

  
Notary Public

**MY COMMISSION EXPIRES**  
**JUNE 12, 2002**

SEAL

My Commission Expires:

Full name of fifth inventor: Amit Goyal

Signature: Amit Goyal Date: 9/29/99

Residence: Knoxville, Tennessee

Post Office Address: 300 Walker Springs Road, #19-E, Knoxville, TN 37923

State of Tennessee )

County of ROANE )

On this 29 day of SEPTEMBER, 1999, before me, a Notary Public in and for the County and State aforesaid, appeared Amit Goyal to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.

  
Notary Public

**MY COMMISSION EXPIRES**  
**JUNE 12, 2002**

SEAL

My Commission Expires:

Full name of sixth inventor: Roeland Feenstra

Signature: Roeland FeenstraDate: 9/29/99

Residence: Knoxville, Tennessee

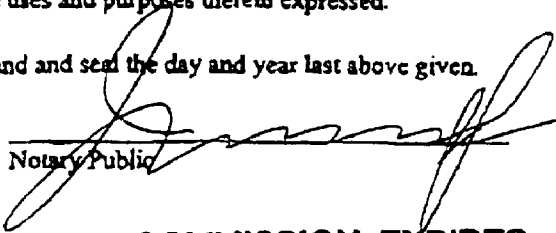
Post Office Address: 701 Forest Heights Drive, Knoxville, TN 37919

State of Tennessee )

County of ROANE )

On this 29 day of SEPTEMBER, 1999, before me, a Notary Public in and for the County and State aforesaid, appeared Roeland Feenstra to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.

  
Notary Public

SEAL

My Commission Expires:

**MY COMMISSION EXPIRES  
JUNE 12, 2002**