Form PTO-1595 (Rev. 6-93)

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OMB No. 0651-0011 (exp. 14/94))116 <u>0283</u>		
To the Honorable Commissioner of Patents and Trademarks: Plea	use record the attached original documents or copy thereof.		
 Name of conveying party(ies): Mariappan PARANTHAMAN, Dominic F. LEE, Donald M. KROEGER and Amit GOYAL Additional name(s) of conveying party(ies) attached? □Yes ☒No 	2. Name and address of receiving party(ies): Name: LOCKHEED MARTIN ENERGY RESEARCH CORPORATION		
3. Nature of conveyance: Assignment	Internal Address: Street Address: Bethel Valley Road P.O. Box 2008 Oak Ridge, TN 37831-6255 Additional name(s) & address(es) attached? Yes No		
4. Application number(s) or patent number(s):			
If this document is being filed with a new application, t A. Patent Application No.(s)	he execution date of the application is: October 16, 1998 B. Patent No.(s)		
5. Name and address of party to whom correspondence concerning document should be mailed:	attached? Yes No 6. Total number of applications and patents involved:		
Name: Mark D. Passler, Esq. Internal Address:	7. Total Fee (37 CFR 34)\$40.00 ☑ Enclosed ☐ Authorized to be charged to deposit account		
Street Address: QUARLES & BRADY LLP 222 Lakeview Avenue - Suite 400 P.O. Box 3188 West Palm Beach, FL 33402-3188	8. Deposit account number 17-0055 (Attach duplicate copy of this page if paying by deposit account)		
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Mark D. Passler, Reg. No. 40,764 Docket No. 6321-127	information is true and correct and any attacked copy is a true 1/21/99 Date Date Date A 1/2 1/99 Date Date		
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ASSIGNMENT

WHEREAS, I, the below-named inventor whose residence and post office is as stated below, have invented certain new and useful improvements in an

BUFFER LAYERS ON ROLLED NICKEL OR COPPER AS SUPERCONDUCTOR 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 Scarboro & Bear Creek Rd., P.O. Box 2009, Oak Ridge, Tennessee 37831-8014, 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, I 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.

I 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, I 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.

I 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.

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Docket No. ESID 0467
Assignment

Full name of first inventor: Mariappan Paranthaman
Inventor's Signature: Par VANAINS Date: 8/31795
Inventor's Signature: Carrow Carro
Post Office Address: 410 Virginia Road, Oak Ridge, Tennessee 37830
Citizenship: India
State of Tennessee County of Anderson
On this 31 day of 1998, before me, a Notary Public in and for the County and State aforesaid, Mariappan Paranthaman appeared before 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.
J. Kenneth Davis, Notary Public My commission expires 11-18-2000
My Commission Expires 11-10-2000
SEAL
Full name of second inventor: Dominic F. Lea
Inventor's Signature: Date: \$\frac{31/98}{}{}
Residence: 9028 Countrywood, Apt. D. Knoxville, Tennessee 37923
Post Office Address: 9028 Countrywood, Apt. D. Knoxville, Tennessee 37923
Citizenship: Hong Kong
State of Tennessee County of Anderson
On this 31 day of 1998, before me, a Notary Public in and for the County and State aforesaid. Dominic F. Lee appeared before 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. J. Kenneth Davis, Notary Public

SEAL

My commission expires 11-18-2000

ket No. ESID 0467

Docket No. ESID 0467
Assignment

Full name of third inventor:	Donald M. Kroeger			
Inventor=s Signature: <u>Bo</u>	ul m Kearge	Date:	8/3/198	
Residence: 716 Villa Crest D	rive, Knoxville, Tennessee	37923		

Post Office Address: 716 Villa Crest Drive, Knoxville, Tennessee 37923

Citizenship: USA

State of <u>Tennessee</u>
County of <u>Anderson</u>

On this 31 day of 1998, before me, a Notary Public in and for the County and State aforesaid, Donald M. Kroeger appeared before 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.

Je Kenneth Davis, Notary Public My commission expires 11-18-2000

SEAL

Full name of fourth inventor: _Amit Goyal

Inventor=s Signature: Date: 8/31/9 P

Residence: 300 Walker Springs Road, Knoxville, Tennessee 37923

Post Office Address: 300 Walker Springs Road, Knoxville, Tennessee 37923

Citizenship: India

On this 21 day of 1998, before me, a Notary Public in and for the County and State aforesaid, Amit Goyal appeared before 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.

J. Kenneth Davis, Notary Public My commission expires 11-18-2000

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