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Name of conveying party(ies)  James R. Mulcahy	2. Name and address of receiving party(ies)  Name: General Technical Services, LLC  Internal Address:		
Additional name(s) of conveying party(ies) attached? Yes No  3. Nature of conveyance/Execution Date(s):  Execution Date(s) 1/05/2016  Assignment Merger  Security Agreement Change of Name  Joint Research Agreement  Government Interest Assignment  Executive Order 9424, Confirmatory License  Other  4. Application or patent number(s): This  A. Patent Application No.(s)	Street Address: 3100 Rte. 138  Bldg #4, Suite 1  City: Wall  State: NJ  Country: USA Zip: 07719  Additional name(s) & address(es) attached? Yes No No document serves as an Oath/Declaration (37 CFR 1.63).  B. Patent No.(s)		
Additional numbers attached? Yes No  5. Name and address to whom correspondence 6. Total number of applications and patents			
concerning document should be mailed:  Name: U.S. Army Research Laboratory	involved: 1		
Internal Address: ATTN: RDRL-LOC-I/Alan I. Kalb	<b>7. Total fee</b> (37 CFR 1.21(h) & 3.41) \$_40.00		
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Docket Number: ARL 13-46  Email Address: nadine.l.loman.civ@mail.mil	Authorized User NameAlan I. Kalb		
9. Signature:	3/9/16		
	Total number of pages including cover sheet, attachments, and documents:  t) should be faxed to (571) 273-0140, or mailed to: f the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450		

## **ASSIGNMENT**

Docket No.:	ARL 15-46	
*Serial No.:	15/061,205	
*Filed:	3/4/2016	

(\*Data not known at execution may be added later for better identification.)

WHEREAS, I James R. Mulcahy , USA have invented certain improvements in INSITU PROCESS FOR LEAD ZIRCONATE TITANTE (PZT) THIN FILMS AND PLATINUM (PT)

ELECTRODE, and described in a patent application executed the 4th day of
March , 20 16 , by the undersigned for filing in The United States
of America, and being the owner of all right, title, and interest in and to said application
and in and to any invention described therein and having full right to convey the entire
interest both legal and equitable herein assigned; and

WHEREAS, General Technical Services, LLC. a corporation of the State of New Jersey (assignee) is desirous of acquiring the entire right, title, and interest in and to said application and said invention described therein and any and all patents to be obtained therefore, all as hereinafter set forth:

NOW, THEREFORE, in consideration of good and valuable consideration received by the undersigned, the undersigned do hereby sell, assign, transfer and set over unto said assignee, its successors and assigns, the entire right, title, and interest in and to said invention or inventions, as described in the aforesaid application, and any form or embodiment thereof, and in and to the aforesaid application; and in and to any application filed in any foreign country based thereon, including the right to file said foreign applications under the provisions of the International Convention; also the entire right, title, and interest in and to any and all patents or reissues or extensions thereof to be obtained in this or any foreign country upon said invention or inventions and any divisional, continuation, continuation-in-part or substitute applications which may be filed upon said invention or inventions in this or any foreign country; and the undersigned hereby authorize and request the issuing authority to issue any and all patents on said application or applications to said assignee or its successors and assigns.

The undersigned further agree to execute all divisional, continuing, substitute, improvement, extension, reissue and other patent applications in this or any foreign country relating to said application or invention and to sign all other lawful papers and to perform all other lawful acts without further consideration, but without expense to myself (ourselves), which the assignee may deem necessary or desirable to make this

Assignment fully effective including by way of example, but not of limitation, the following acts:

- Prompt execution of all lawful oaths, affidavits and/or supplemental oaths (1) required or deemed advisable by the assignee to further the prosecution of any application or applications for letters patent relating to the subject matter of this Assignment;
- To cooperate to the best of our ability in the execution of all lawful (2) documents, the production of evidence, and the giving of testimony in interference, opposition, nullification or infringement proceedings involving the said invention or improvement, applications or patents or any of them.

The undersigned hereby authorize said assignee to insert in this Assignment the serial number and filing date of the above identified application when known.

IN WITNESS WHEREOF, the undersigned have hereunto set their hand and seals on the dates set after their signatures.

Joins R. Mulashy	, 1/5 ,20	16
(Signature)	(Date)	
James R. Mulcahy		
State of Mary/Ann ) SS: County of Mentgemery		
County of Mentyoney)		
On this 5th day of January personally appeared Jamus R. Mulcahy known, and known to me to be the person who signed acknowledge the signing of same as his/her free act and decompositions.		nally
acknowledge the signing of same as market free act and de-	cu.	

My Commission /Expires 1

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