09-15-2004

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Form PTO-1595 RECO  (Rev. 10/02)  OMB No. 0651-0027 (exp. 6/30/2005)  Tab settings	J.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office			
To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.				
1. Name of conveying party(ies): Thomas K. Dougherty John J. Drab  9 - 4 - 5	_   Οπice of the General Counsel			
Additional name(s) of conveying party(ies) attached? Yes	JNo			
3. Nature of conveyance:   Assignment Merger  Security Agreement Change of Nar  Other	1			
Execution Date:	City: Watham State: MA Zip: 02451-1449			
4. Application number(s) or patent number(s):	Additional frame(s) & address(es) attached (			
	application, the everytion data of the application is:			
A. Patent Application No.(s) 10/771,066  Document ID No. 102668190	application, the execution date of the application is:  B. Patent No.(s)			
Additional numbers attached? Yes No				
Name and address of party to whom corresponder concerning document should be mailed:     Name: Raytheon Company	7. Total fee (37 CFR 3.41)\$ 40.00			
Patent Docket Administration Internal Address:	Enclosed			
P.O. Box 902 (EO/EO4/N119)	Authorized to be charged to deposit account			
Street Address: 2000 E. El Segundo Boulevard	8. Deposit account number: 50-0616			
City: El Segundo State: CA Zip: 90245-0902				
DO NOT USE THIS SPACE				
9. Signature.				
John E. Gunther, 43,649	ml/mdh 09-09-2004			
Name of Person Signing	Signature Date			
Total number of pages including cover sheet, attachments, and documents:				

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

(Pay 02/01)	2-12\2004	U.S. DEPAI U.S. Pa	atent and Tradema
OMB No. 0651-0027 (exp. 5/31/2002)		_	<b>v</b> v
Tab settings ⇒ ⇒ ▼  To the Honorable Commissioner o.	102668190	.⊿d original documer	
Name of conveying party(ies):	<del></del>	e and address of receiving	
Thomas K. Doughtery		e: Raytheon Company	, , , , , , , , , , , , , , , , , , ,
John J. Drab		nal Address:	operty and Licer
2-2-84	Inter	nai Address:	<u></u>
Additional name(s) of conveying party(ies) attached?	Yes 🔀 No ——		
3. Nature of conveyance:			
🖫 Assignment 🖳 Merger			
☐ Security Agreement ☐ Change of Name		et Address:	
☐ Other	870	Winter Street	
		Waltham State:	MA:02/
<b>2/4/04, 1/27/04</b> Execution Date:		State	Zip
Execution Date:	Addition	onal name(s) & address(es) attacl	ned? 📮 Yes 🎉
4. Application number(s) or patent number(s):	PD-02W210		
If this document is being filed together with	a new application, th	e execution date of the app	lication is:
A Photost A coll 12 At 17 At 17			
A. Patent Application No.(s)	В. Р	atent No.(s)	
Addition  5. Name and address of party to whom corres	al numbers attached?	Yes 12 No / 0 /	7/06 patents involve
Addition  5. Name and address of party to whom corres concerning document should be mailed:	al numbers attached? pondence 6. Total	Yes No / 0 /	
5. Name and address of party to whom corres concerning document should be mailed:  Name: Raytheon Company	al numbers attached? pondence 6. Total 7. Total	Yes No / / / / / / / / / / / / / / / / / /	
Addition  5. Name and address of party to whom corres concerning document should be mailed:	pondence 6. Total 7. Total	Yes No / / / / / / / / / / / / / / / / / /	\$_40.00
5. Name and address of party to whom corres concerning document should be mailed:  Name: Raytheon Company	pondence 6. Total 7. Total	Yes No / / / / / / / / / / / / / / / / / /	\$_40.00
5. Name and address of party to whom corres concerning document should be mailed:  Name: Raytheon Company	al numbers attached?  pondence 6. Total 7. Total	Yes No / / / / / / / / / / / / / / / / / /	\$_40.00
5. Name and address of party to whom corres concerning document should be mailed:  Name:  Raytheon Company  Internal Address:  John E. Gunther	al numbers attached?  pondence 6. Total 7. Total	Yes No / / / / / / / / / / / / / / / / / /	\$_40.00
5. Name and address of party to whom corres concerning document should be mailed:  Name: Raytheon Company  Internal Address: John E. Gunther	al numbers attached?  pondence 6. Total 7. Total	Yes No / / / / / / / / / / / / / / / / / /	\$_40.00
5. Name and address of party to whom corres concerning document should be mailed:  Name: Raytheon Company  Internal Address: John E. Gunther  Street Address: P.O. Box 902 (E4/N119))  El Segundo CA 90	al numbers attached?  pondence 6. Total 7. Total	Yes No / / / / / / / / / / / / / / / / / /	\$_40.00
5. Name and address of party to whom corres concerning document should be mailed:  Name: Raytheon Company  Internal Address: John E. Gunther  Street Address: P.O. Box 902 (E4/N119))	al numbers attached?  pondence 6. Total 7. Total	Yes No / / / / / / / / / / / / / / / / / /	\$_40.00
5. Name and address of party to whom corres concerning document should be mailed:  Name: Raytheon Company  Internal Address: John E. Gunther  Street Address: P.O. Box 902 (E4/N119))  El Segundo Caty: State: Zip:	al numbers attached?  pondence 6. Total 7. Total	Yes No / / / / / / / / / / / / / / / / / /	\$_40.00
5. Name and address of party to whom corres concerning document should be mailed:  Name: Raytheon Company  Internal Address: John E. Gunther  Street Address: P.O. Box 902 (E4/N119))  El Segundo City: State: Zip: DC  9. Statement and signature.	al numbers attached? pondence 6. Total 7. Total 8. Depo 50-0 (Attach	Yes No / / / / / / / / / / / / / / / / / /	deposit accour
5. Name and address of party to whom corres concerning document should be mailed:  Name: Raytheon Company  Internal Address: John E. Gunther  Street Address: P.O. Box 902 (E4/N119))  El Segundo City: State: Zip: DC  9. Statement and signature.  To the best of my knowledge and belief, the	al numbers attached? pondence 6. Total 7. Total 8. Depo 50-0 (Attach	Yes No / / / / / / / / / / / / / / / / / /	deposit accour
5. Name and address of party to whom corres concerning document should be mailed:  Name: Raytheon Company  Internal Address: John E. Gunther  Street Address: P.O. Box 902 (E4/N119))  El Segundo City: State: Zip: DC  9. Statement and signature.	al numbers attached? pondence 6. Total 7. Total 8. Depo 50-0 (Attach	Yes No / / / / / / / / / / / / / / / / / /	deposit accour
5. Name and address of party to whom corres concerning document should be mailed:  Name: Raytheon Company  Internal Address: John E. Gunther  Street Address: P.O. Box 902 (E4/N119))  El Segundo City: State: Zip: DC  9. Statement and signature.  To the best of my knowledge and belief, the is a true copy of the original document.	al numbers attached? pondence 6. Total 7. Total 8. Depo 50-0 (Attach	Yes No number of applications and fee (37 CFR 3.41)	deposit accounting by deposit accounting by deposit accounting by attached cop

PATENT REEL: 015803 FRAME: 0538

## ASSIGNMENT

WHEREAS, I, as below named joint inventor of the city and state as stated below next to my name, have invented "Environmentally Benign Lead Zirconate Titanate Ceramic Precursor Materials" for which application for Letters Patent of the United States has been executed by me on this day; and

WHEREAS, RAYTHEON COMPANY, a Delaware Corporation, having its principal place of business in Lexington, Massachusetts, is desirous of acquiring the entire and exclusive right, title and interest in, to and under said invention, said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world;

NOW, THEREFORE, in consideration of the obligations voluntarily assumed by me and set forth in an invention agreement between me and my employer, effective the date as stated below next to my name, and other good and valuable consideration, receipt of which is hereby acknowledged, I do hereby sell, assign and transfer to RAYTHEON COMPANY, its successors, assigns or other legal representatives, the entire and exclusive right, title and interest in and to said invention invented by me, to said application and any and all applications which are continuations, continuations-in-part, divisions or substitutes of said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world on any of said applications and to any and all reexaminations, reissues, renewals or extensions of said Letters Patent in the United States and throughout the world for the full term or terms for which said Letters patent may be granted in the United States and throughout the world; authorize and request The Commissioner of Patents and Trademarks of the United States and all foreign countries to issue all such Letters Patent to said RAYTHEON COMPANY, its successors, assigns or other legal representatives; convenient that no assignment, sale, agreement, transfer or encumbrance has been, or will be, made or entered into which would conflict with this assignment, sale and transfer; and agree to communicate to RAYTHEON COMPANY, its successors, assigns or other legal representatives, upon request and at no cost or expense to me, any facts known by me respecting said invention, do all lawful acts, including the execution and delivery of all papers and proper oaths and giving of testimony that is deemed necessary or desirable by RAYTHEON COMPANY, its successors, assigns or other legal representatives with regard to said invention for protecting, obtaining, maintaining and enforcing any and all of said Letters Patent in the United States and throughout the world for said invention and for perfecting, affirming, recording and maintaining the title of RAYTHEON COMPANY, its successors, assigns or other legal representatives, and generally cooperate to the fullest extent in all matters pertaining to said invention, and any and all of said Letters Patent and the title thereto in RAYTHEON COMPANY, its successors, assigns or other legal representatives.

> PATENT REEL: 015803 FRAME: 0539

IN WITNESS WHEREOF, we have executed this instrument.

**RECORDED: 09/09/2004** 

Full Name of Inventor	Inventor Signature	Date Signed		
Thomas K. Dougherty	Thon K Dayn	2-4-04		
Residence (City and State)		Invention Agreement Date		
Playa Del Rey, California	William V	June 27, 1977		
STATE OF <u>California</u> COUNTY OF <u>Los Angeles</u>	) ) SS:			
On 2-4-04 before me,	Elaine Panousis , a N	lotary Public in and for said State,		
personally appeared Thomas K. De	ougherty			
the within instrument and acknowledged to me	me on the basis of satisfactory evidence to be the person that he/sye/they executed the same in his/hyp/the/r author person(s), or the entity upon behalf of which the person(s)	orized capacity(ies), and that by		
ELAINE PANOUSIS Commission # 1296202 Notary Public - California Los Angeles County My Cornm. Expires Mar 5, 200	Notary Public	<u> </u>		
Full Name of Inventor	Inventor Signature	Date Signed		
John J. Drab		27 Jan :04		
Residence (City/and State) Invention Agreement Date				
Santa Barbara, California	·	May 25, 1983		
the within instrument and acknowledged to me	John J. Drab  me on the basis of satisfactory evidence to be the person that he/she/they executed the same in his/her/their author person(s), or the entity upon behalf of which the person(s).  Notary Public	orized capacity(ies), and that by		
MERILEE J. CONLEY Commission # 1268048 Notary Public - California Santa Barbara County My Comm. Expires Jul 18, 2004		•		

PATENT REEL: 015803 FRAME: 0540