Name (line 1) SANDIA CORPORATION 9/2/2003 Name (line 2) Steection Data Notific Data Name (line 1) Mark if additional names of receiving parties attached Name (line 2) Mark if additional names of receiving parties attached Name (line 1) U.S. Department of Energy Mark if additional names of receiving parties attached Name (line 2) Mark if additional names of receiving parties attached the assignment of the second party is not needing	FORM PTO-1619A Expires 06/30/99 OMB 0651-0027		U.S. Pa	5. Department of Commerce tent and Trademark Office PATENT
Lubmission Type Conveyance Type New Assignment Security Agreement Resubmission (Non-Recordation) License Change of Name Document 10# License Change of Name Correction of ETO Error Werger U.S. Government Corrective Depresentent Frame # U.S. Government Agencies) Real # Frame # Ø Departmental File Secret File Sconveying Party(les) Mark if additional names of conveying parties attached Mark if additional names of conveying parties attached Mark if additional names of conveying parties attached Mark if additional names of receiving parties attached Mark if additional names of rece		BATENTO ONI	v	
Resubmission (Non-Recordation) License Change of Name Document 10# Frame # Warger Other Confirmatory License Corrective Document If Frame # U.S. Government Agencies) Real # Frame # Worker Confirmatory License Corrective Document Bearth Pirk Secret File Corrective Document Mark if additional names of conveying parties attacked bearting the worker of the secret file Conveying Party(ies) Mark if additional names of conveying parties attacked Name (line 1) Exection Data worker Name (line 2) Exection Data worker Accounting Party Mark if additional names of receiving parties attached Name (line 2) Exection Data worker Name (line 2) Exection Data worker Name (line 2) Warm of Executing Party Name (line 2) Warm of Executing Party Name (line 3) Exection Data worker Name (line 3) Exection Data worker Address (line 3) Converting Party Mark if additional names of receiving Party only. Mark if additional names of receiving Party only. Name (line 3) Exection Data worker Address (line 3)	bmission Type	Conveyance ly	pe	·
Real # Frame # U.S. Govariment (For Use OLY by U.S. Govariment (For OFFICE USE ONLY	 ── Resubmission (Non-Recordation)	License		
Rei# Frame # Departmental File Secret File Onveying Party(ies) Mark if additional names of conveying parties attached Execution Data Name (line 1) SANDIA CORPORATION 9/2/2003 Name (line 2)	Correction of PTO Error Reel # Frame #		US. Government	
Name (line 1) SANDIA CORPORATION 9/2/2003 Name (line 1) SANDIA CORPORATION 9/2/2003 Second Party Image (line 1) Exection Data Name (line 2) Image (line 1) Image (line 1) Receiving Party Mark if additional names of receiving parties attached Name (line 2) Image (line 1) Image (line 1) Name (line 2) Image (line 2) Image (line 2) Name (line 2) Image (line 2) Image (line 2) Name (line 2) Image (line 2) Image (line 2) Address (line 1) 1000 Independence Avenue, S.W. Image (line 2) Address (line 2) Image (line 3) Image (line 3) Address (line 3) Image (line 3) Image (line 4) Obmestic Representative Name and Address Enter for the first Receiving Party only. Name Image (line 4) Image (line 4) FOR OFFICE USE ONLY FOR OFFICE USE ONLY				
Name (line 2) Name (line 1) Name (line 2) Receiving Party Name (line 2) Receiving Party Name (line 2) Receiving Party Name (line 1) U. S. Department of Energy Name (line 2) Name (line 3) Name (line 3) Name I D.C. StateCounty Zip Code Domestic Representative Name and Address Enter for the first Receiving Party only. Name Address (line 3) Name FOR OFFICE USE ONLY		Mark if addition	nal names of conveying par	
Receiving Party Mark if additional names of receiving parties statched Name (line 1) U. S. Department of Energy It document to be recorded Name (line 2) It document to be recorded It document to be recorded Address (line 1) 1000 Independence Avenue, S.W. It document from Address (line 2) It document from Assignment, Address (line 3) Washington D.C. 20585-0162 Domestic Representative Name and Address Enter for the first Receiving Party only. Name Address (line 2) It does a consist of a consist o	Name (line 2)			Execution Date Month Day Year
Receiving Party Image: the assignment of Energy Name (line 1) U. S. Department of Energy Name (line 2) Image: the assignment and the records of the term of term of the term of term o	Name (line 2)			
Name (iline 1) U. S. Department of Energy Is an assignment and the receiving party is not the receiving party only. Name	Receiving Party		Mark if additional names o	
Name (Ilne 2) of a domestic processitive is attached (Designment,) Address (Ilne 1) 1000 Independence Avenue, S.W. asignment,) Address (Ilne 2) City State/Country 20585-0162 Address (Ilne 3) Washington D.C. 20585-0162 City State/Country Zip Code Domestic Representative Name and Address Enter for the first Receiving Party only. Name Address (Ilne 2) Address (Ilne 3) Address (Ilne 3) Enter for the first Receiving Party only. FOR OFFICE USE ONLY FOR OFFICE USE ONLY		y		is an assignment and the receiving party is not domiciled in the United
Address (Ilne 2) Address (Ilne 3) Washington City Domestic Representative Name and Address Enter for the first Receiving Party only. Name Address (Ilne 1) Address (Ilne 2) Address (Ilne 3) FOR OFFICE USE ONLY FOR OFFICE USE ONLY				of a domestic representative is attached. (Designation must be a
Address (IIne 3) Washington D.C. State/Country Zip Code Domestic Representative Name and Address Enter for the first Receiving Party only. Name	· · · · · · · · · · · · · · · · · · ·			
Name				
Address (line 1) Address (line 2) Address (line 3) Address (line 3) FOR OFFICE USE ONLY FOR OFFICE USE ONLY	Domestic Representative Name	e and Address	nter for the first Receiving F	Party only.
Address (line 2) Address (line 3) Address (line 4) FOR OFFICE USE ONLY FOR OFFICE USE ONLY	Name			
Address (line 3) Address (line 4) FOR OFFICE USE ONLY FOR OFFICE USE ONLY	Address (line 1)			
Address (line 4)FOR OFFICE USE ONLY	Address (line 2)			
FOR OFFICE USE ONLY	Address (line 3)			
to every sheet to be recorded, including time for reviewing the do-	Address (line 4)			
light the state of the sector		FOR OFFICE USE	DNLY	
Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for avianing the or and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office. Chief Information, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Papework Reduction Project (0851-0027), Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Papework Reduction Project (0851-0027), Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Papework Reductor Project (0851-0027), Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Papework Reductor Project (0851-0027), Washington, D.C. Sen OMB Information Collection Budget Package 0551-0027, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS T Mail documents to be recorded with required cover sheet(s) information to: Mail documents to be recorded with required cover sheet(s) information to: Mail Stop Assignment Recordation Services, Director of the United States Pater Dard Endo mark Office, P.O. Box 1450, Alexandria, VA 22313-1450 P.O. Box 1450, Alexandria, VA 22313-1450	and gathering the data needed to compare the ormation of washington, D.C. 20231 and to the Office of Information, Course of Article Course of State (State 1997) and the state of the office of the state of the stat	and Regulatory Affairs, Office of Managemen 27, Patent and Trademark Assignment Practi	t and Budget, Paperwork Reduction ce. DO NOT SEND REQUESTS TO I	RECORD ASSIGNMENT DOCUMENTS TO TH

 FORM PTO-1619B Expires 08/30/39 OMB 0651-0027	Page 2	U.S. Department of Commerce Patent and Trademark Office PATENT
prrespondent Name and Address	Area Code and Telephone Number	202-586-2802
Name Betty A. Winchester		
dress (line 1) U.S. Department of Energy		
dress (line 2) 1000 Independence Avenue, S.W.		
dress (line 3) Washington, D. C. 20585-0162		
Idress (line 4)		
ages Enter the total number of p including any attachments	ages of the attached conveyance docu s.	
pplication Number(s) or Patent Nu		if additional numbers attached
Enter either the Patent Application Number or th	e Patent Number (DO NOT ENTER BOTH number Pat	ent Number(s)
Patent Application Number(s)	6,309,461	
		Month Dey Year
f this document is being filed together with a new F	Patent Application, enter the date the patent appl	Ication
Patent Cooperation Treaty (PCT)		
Enter PCT application number	PCT PCT	
only if a U.S. Application Numb has not been assigned.	ber PCT PCT	PCT
	otal number of properties involved.	#
	ount for Properties Listed (37 CFR 3.41)	
	nclosed Deposit Account	
Wentod of Laymont)
(Enter for payment by deposit account or i	If additional fees can be charged to the account.) Deposit Account Number:	#
	Authorization to charge additional fees	;; Yes No 🗸
Statement and Signature		
	nd belief, the foregoing information is the	rue and correct and any
To the best of my knowledge an attached conv is a true copy of a	the original document. Charges to dep	oosit account are authorized, as
Indicated herein.		
Brenda K. Banks	Bundak Bank Signature	<u>//_20//0_</u>
		Liale

PATENT REEL: 014007 FRAME: 0368

<u>99/</u> 327,043 Now SD-6326/S-91937 September 3, 2003

Pat. 6, 309, 461

CONFIRMATORY LICENSE

Application for:	CRYSTAL GROWTH AND ANNEALING METHOD AND APPARATUS
Inventors:	Steven E. Gianoulakis and Robert Sparrow
Serial Number:	09/327,043
Filing Date:	06/07/99
Contract No.:	DE-AC04-94AL85000
Contractor:	Sandia Corporation

The invention identified above is a "Subject Invention" under the above-numbered contract. A copy of the provisions of the above-numbered contract certified on January 9, 1996, governing patent rights in the Subject Invention at the time the invention was made, has been submitted to the U. S. Department of Energy.

The contractor hereby confirms that under the provisions of the above-numbered contract governing patent rights, it has granted to the Government a nonexclusive, nontransferable, irrevocable, paid up license to practice or have practiced for or on behalf of the United States the Subject Invention throughout the world. This license applies to the invention in the aboveidentified patent application and any and all divisions or continuations thereof and any resulting patent or reissue patent which may be granted thereon.

It is understood and agreed that this document does not preclude the Government from asserting rights under the provisions of said contract or any other agreement between the Government and the Contractor, or any other rights of the Government with respect to the above-identified invention.

The Contractor hereby grants the Government an irrevocable power to inspect and make copies of the above-identified application.

Signed this 2 May of Ser. ____, 2003.

Russell D. Elliott Director of Intellectual Property

If the invention was made under a subcontract, please identify the Prime Contractor:

, Prime Contract No._____

PATENT REEL: 014007 FRAME: 0369

RECORDED: 09/26/2003