FORM PTO-1619A Expires 06/30/99 OMB 0851-0027	U.S. Department of Commerce Patent and Trademark Office PATENT
	DATION FORM COVER SHEET  PATENTS ONLY  rademark Office: Please record the attached original document(s) or copy(les).
Submission Type	Conveyance Type
✓ New	Assignment Security Agreement
Resubmission (Non-Recordation) Document ID#	License Change of Name
Correction of PTO Error Reel # Frame #	Merger
Corrective Document	U.S. Government
Reel # Frame #	(For Use ONLY by U.S. Government Agencies)  Departmental File  Secret File
Conveying Party(ies)	Mark If additional names of convenience and the state of
Name (line 1) MIDWEST RESEARCH INSTITUT	
Name (line 2) Second Party	
Name (line 1)	Execution Date Month Day Year
Name (line 2)	
Receiving Party	Mark If additional names of receiving parties attached
Name (line 1) U. S. Department of Energy	If document to be recorded
Name (line 2)	is an assignment and the receiving party is not
radile (inte 2)	domiciled in the United States, an appointment of a demestic
Address (line 1) 1000 Independence Avenue, S.W.	representative is attached. (Designation must be a
Address (line 2)	Saparete document from Assignment.)
Addroga (ii 2) West	
Address (line 3) Washington City	D.C. 20585-0162  State/Country Zlp Code
Domestic Representative Name and	Address  Enter for the first Receiving Party only.
Name	
Address (line 1)	
Address (line 2)	
Address (line 3)	
Address (line 4)	
	FOR OFFICE USE ONLY
Dublis hands and death and a second second	

Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the document 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 Officer, Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (9651-0027), Weshington, D.C. 20503. See OMB Information Collection Budget Package 0651-0027, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS

Mail documents to be recorded with required cover sheet(s) information to:

Mail Stop Assignment Recordation Services, Director of the United States Patent and Arademark Office.
P.O. Box 1450, Alexandria, VA 22313-1450

700092905

REEL: 014757 FRAME: 0954

FORM PTO-1619B Expires 08/30/99 OMB 0651-0027	Page 2	U.S. Department of Commerce Patent and Trademark Office
Correspondent Name and Address	Area Code and Telephone Number	202-586-2802
Name Brenda K. Banks		202-380-2802
Address (line 1) U. S. Department of Energy		
Address (line 2) 1000 Independence Avenue, S.W.		
Address (line 3) Washington, D. C. 20585-0162		
Address (line 4)		
Pages Enter the total number of pages including any attachments	ages of the attached conveyance docum	nent # 1
Application Number(s) or Patent Nu	· ,	additional numbers attached
Enter either the Patent Application Number or the	Patent Number (DO NOT ENTER BOTH numbers	
Patent Application Number(s)	Pater	nt Number(s)
03/500,021		
If this document is being filed together with a new Pa was	tent Application, enter the date the patent applicat	tion Month Day Year
Patent Cooperation Treaty (PCT)		
Enter PCT application number	PCT PCT	PCT
only if a U.S. Application Numbe has not been assigned.	PCT PCT	РСТ
Number of Properties  Enter the tota	ıl number of properties involved.	1
Fee Amount Fee Amoun	nt for Properties Listed (37 CFR 3.41): \$	0.00
	osed Deposit Account	
Deposit Account (Enter for payment by deposit account or if ad	iditional fees can be charged to the account.) Deposit Account Number:	
	Authorization to charge additional fees:	Yes No 🗸
Statement and Signature		
attached copy is a true copy of the indicated herein.	ellef, the foregolng information is true a original document. Charges to deposit Aundak Bunk	nd correct and any account are authorized, as
Brenda K. Banks Name of Person Signing		4/21/0 <i>xy</i>
Name of Person Signing	Signature	Date

**PATENT** 

**REEL: 014757 FRAME: 0955** 

04/0000,62

DOE Docket No.: S-90,967

## CONFIRMATORY LICENSE

Application for:

Verticle Two Chamber Reaction Furnace

Inventor(s):

Richard D. Blaugher

Serial No.:

09/006,621

Filing Date:

January 13, 1998

Contract No.:

DE-AC36-83CH10093

Contractor:

Midwest Research Institute

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 February 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 to have practiced for or on behalf of the United States the subject invention throughout the world. This license applies to the invention in the above-identified 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 \_24<sup>th</sup> day of <u>June</u>, 1998.

Ker Richardson

Assistant Chief Patent Counsel

National Renewable Energy Laboratory 1617 Cole Blvd. Golden, CO 80401

RECORDED: 06/21/2004

PATENT REEL: 014757 FRAME: 0956