FORM PTO-1619A Expires 06/30/99 OMB 0651-0027 08-17-2000



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Name (line 1)	Steven W. Johnston			Month Day Year 06/22/00
Name (line 2)				00/22/00
Second Party				Execution Date
	Richard K. Arheniel			Month Day Year 07/11/00
Name (line 2)				
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Name [Paul J. White			
Address (line 1)	National Renewable Energy	Laboratory		
Address (line 2)	1617 Cole Boulevard			
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REEL: 010993 FRAME: 0301

FORM PT (Expires 06/30/99 OMB 0651-0027	O-1619A	Page 2	U.S. Department of Commerce Patent and Trademark Office PATENT	
Correspond	ent Name and Address	Area Code and Telephone Num	ber 303/384-7575	
Name	Paul J. White			
Address (line 1)	Senior Patent Counsel			
Address (line 2)	National Renewable Energy	Laboratory		
Address (line 3)	1617 Cole Boulevard			
Address (line 4)	Golden, CO 80401			
Pages	Enter the total number of including any attachment	pages of the attached conveyance d s.	ocument # 4 pages	
	Number(s) or Patent Nu	· · · · · · · · · · · · · · · · · · ·	ark if additional numbers attached	
	he Patent Application Number or the ent Application Number(s)	ne Patent Number (DO NOT ENTER BOTH num	nbers for the same property). Patent Number(s)	
	J			
If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor. Month Day Year June 22, 2000				
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only	r PCT application number if a U.S. Application Number	per PCT PCT	PCT	
Number of Properties Enter the total number of properties involved. # One (1)				
Fee Amount	Fee Amour	nt for Properties Listed (37 CFR 3.4	(4): \$ 40.00	
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Deposit (Enter for	Account payment by deposit account or if a	dditional fees can be charged to the account.) Deposit Account Number:	# 14-0460	
		Authorization to charge additional fees	s: Yes XX No	
Statement a	nd Signature			
attache indicat	best of my knowledge and ed copy is a true copy of the ed herein. . White	belief, the foregoing information is to entire the foregoing information is to dep	true and correct and any posit account are authorized, as July 13, 2000	
	of Person Signing	V Signature	Date	

PATENT REEL: 010993 FRAME: 0302 ASSIGNMENT

WHEREAS, We, Steven W. Johnston of 967 Torrey Street, Golden, County of Jefferson, State of

Colorado; and Richard K. Ahrenkiel of 11124 West Ohio Place, Lakewood, County of Jefferson, State of

Colorado; having invented certain new and useful improvements in **Radio Frequency Coupling Apparatus**

and Method for Measuring Minority Carrier Lifetimes in Semiconductor Materials, which we are about

to make application for Letters Patent of the United States, said application being identified as NREL IR No.

00-20 and; executed concurrently herewith; and;

WHEREAS, we now own the entire right, title and interest therein; and

WHEREAS, Midwest Research Institute, of 425 Volker Blvd., Kansas City, Missouri 64110, a

corporation fully organized and existing under the laws of the State of Missouri is desirous of acquiring the

entire right, title, and interest therein and thereto;

NOW THEREFORE, be it known that for good and other consideration to us in hand paid, the

receipt of which is hereby acknowledged, we, the said Steven W. Johnston and Richard K. Ahrenkiel by

these presents do sell, assign, and transfer unto the said Midwest Research Institute, its successors, legal

representatives and assigns, our entire right, title, and interest in and to said invention and the aforesaid

application, for the United States of America and for all foreign countries and to all Letters Patents,

continuations and reissues, and extensions to be obtained therefor; and we further agree to cooperate with

the assignee hereunder in the obtaining and sustaining of any and all such Letters Patent, but at the expense

of said assignee.

The Commissioner of Patents is hereby authorized and requested to issue the Letters Patent solely

in accordance with the terms of this assignment to Midwest Research Institute, its successors, legal

representatives and assigns, as the assignee of the entire right, title and interest therein.

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REEL: 010993 FRAME: 0303

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal on the date set forth

hereinafter. Witness	Steven W. Johnston Steven W. Johnston
Witness	Richard K. Ahrenkiel
COUNTY OF JEFFERSON) STATE OF COLORADO)	
Before me, a Notary Public in and for Johnston and Richard K. Ahrenkiel known to	the said County and State, personally appeared Steven W me to be the persons whose names are subscribed to the xecuted the same for the purposes and consideration thereing, this //## day of
My commission expires: October 4, 20	
[Seal] Approved and consented to this 3th	Brenda E. Brantley, Notary Public State of Colorado My Commission Expires 10/4/2001 day of 2000.
Srende C. Broutley	By Paul J. White, Reg. No. 30,436 Its Senior Patent Counsel

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RECORDED: 07/14/2000

PATENT REEL: 010993 FRAME: 0304