FORM PTO-1619A Expires 06/30/99

08-09-2001

U.S. Department of Commerce Patent and Trademark Office **PATENT**



101804902

RECORDATION FORM COVER SHEET PATENTS ONLY
TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).
Submission Type Conveyance Type
New Assignment Security Agreement
Resubmission (Non-Recordation) Document ID# License Change of Name
Correction of PTO Error Reel # Frame # Other US Government
Corrective Document Reel # Frame # Departmental File Secret File
Conveying Party(ies) Mark it additional names of conveying parties attached Execution Date
Name (line 1) Shi-you Ding Month Day Year 07/26/01
Name (line 2)
Second Party Execution Date Month Day Year
Name (line 1) William S. Adney 07/26/01
Name (line 2)
Receiving Party Mark if additional names of receiving parties attached
Name (line 1) Midwest Research Institute If document to be recorded is an assignment and the
Name (line 2) receiving party Is not domiciled In the United States, an appointment
of a domestic
(Designation must be a
Address (line 2) Assignment)
Address (line 3) Kansas City Missouri 64110
Domestic Representative Name and Address Enter for the first Receiving Party only.
Name Paul J. White
Address (line 1) National Renewable Energy Laboratory
Address (line 2) 1617 Cole Boulevard
Address (line 3) Golden, CO 80401
Address (line 4)
001 DBYRNE 00000123 140460 09917378 FOR OFFICE USE ONLY
81 40.00 CH

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 (0651-0027), Washington D C. Information Collection Budget Package 0651-0027, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS ADDRESS.

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

REEL: 012044 FRAME: 0741

FORM PTO-1619A Expires 06/30/99 OMB 0651- 0027	Page 2	U.S. Department of Commerce Patent and Trademark Office PATENT		
Correspondent Name and Address Area Code and Telephone Number 303/384-7575				
Name Paul J. White				
Address (line 1) Senior Patent Counsel				
Address (line 2) National Renewable Energy l	Laboratory			
Address (line 3) 1617 Cole Boulevard				
Address (line 4) Golden, CO 80401				
Pages Enter the total number of processing including any attachments	pages of the attached conveyance do s.	cument # 5 pages		
Application Number(s) or Patent Nu	` ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	rk if additional numbers attached		
Enter either the Patent Application Number or the Patent Application Number(s)		bers for the same property). atent Number(s)		
Fatent Application Number(s)		itent Number(s)		
If this document is being filed together with a new Pa	ntent Application enter the date the patent appli	lication was Month Day Year		
signed by the first named executing inventor.	nent Application, enter the date the patent appli	ilication was		
Patent Cooperation Treaty (PCT)	PCT PCT	PCT		
Enter PCT application number only if a U.S. Application Numl	ber PCT PCT	PCT		
has not been assigned.				
Number of Properties Enter the	total number of properties involved.	# One (1)		
Fee Amount Fee Amoun	nt for Properties Listed (37 CFR 3.4	1): \$ 40.00		
Method of Payment: Enclosed Deposit Account XX Deposit Account				
(Enter for payment by deposit account or if additional fees can be charged to the account.) Deposit Account Number: # 14-0460				
	Authorization to charge additional fees	: Yes XX No		
Statement and Signature				
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein. Paul J. White				
Paul J. White Name of Person Signing	Signature	Date		

PATENT REEL: 012044 FRAME: 0742 FORM PTO-1619C Expires 06/30/99

RECORDATION FORM COVER SHEET CONTINUATION DATENTS ONLY

U.S. Department of Commerce Patent and Trademark Office

OMB 0031-0027	PATENTS ONLY	PATENT A		
Conveying Pa	mark if additional names of conveying parties attached	Execution Date		
	<u> </u>	Month Day Year 07/26/01		
Name (line 1) To	dd B. Vinzant	07/26/01		
Name (line 2)		Execution Date Month Day Year		
Name (line 1) Mi	chael E. Himmel	07/26/01		
Name (line 2)				
Name (line 1)		Execution Date Month Day Year		
Name (line 2)				
Receiving Pa	rty(ies) Mark if additional names of receiving partie	es attached		
Enter additional R	eceiving Party(ies)	:		
Name (line 1)		If document to be recorded is an assignment and the		
Name (line 2)		receiving party is not domiciled in the United states, an appointment		
Address (line 1)		of a domestic representative is attached. (Designation must be a separate		
Address (line 2)		document from Assignment.)		
Address (line 3)	City State/Country Zip Cod	e		
Name (line 1)		If document to be recorded is an assignment and the		
Name (line 2)		receiving party is not domiciled in the United states, an appointment of a		
Address (line 1)		domestic representative is attached. (Designation must be a separate document from		
Address (line 2)		Assignment.)		
Address (line 3)	City State/Country Zip Co	ode		
Application Number(s) or Patent Number(s) Mark if additional numbers attached Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).				
	tent Application Number(s) Patent Numb			
[

REEL: 012044 FRAME: 0743

ASSIGNMENT

WHEREAS, We, Shi-you Ding of 26 South Halman Way, #1C, Golden, County of Jefferson, State

of Colorado; William S. Adney of 13190 West 21st Avenue, Golden, County of Jefferson, State of Colorado

Todd B. Vanzant of 16601 West 15th Avenue, Golden, County of Jefferson, State of Colorado; and Michael

E. Himmel of 9202 W. Hialeah Place, Littleton, County of Arapahoe, State of Colorado having invented

certain new and useful improvements in **Thermal Tolerant Mannanase from Acidothermus**

Cellulolyticus, which we are about to make application for Letters Patent of the United States, said

application being identified as NREL IR No. 01-35 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 Shi-you Ding, William S. Adney, Todd B. Vanzant,

and Michael E. Himmel 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.

1

PATENT

REEL: 012044 FRAME: 0744

Witness Witness Witness Witness Witness	Shi-you Ding William & Addy William S. Adney Todd B. Vinzant Michael E. Himmel			
COUNTY OF JEFFERSON)				
STATE OF COLORADO)				
Before me, a Notary Public in and for the said County and State, personally appeared Shi-you Ding, William S. Adney, Todd B. Vanzant, and Michael E. Himmel known to me to be the persons whose names are subscribed to the foregoing, and acknowledged to me that they executed the same for the purposes and consideration therein expressed. Given under my hand and seal of office, this Lotte day of July 2001.				
My commission expires: October 4, [Seal] Approved and consented to this 27	Brenda E. Brantley, Notary Public State of Colorado My Commission Expires 10/4/2001			
ATTEST:	By Paul J. White, Reg. No. 30,436 Its Senior Patent Counsel			

2

RECORDED: 07/28/2001

PATENT REEL: 012044 FRAME: 0745