PATENT ASSIGNMENT

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SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Vincent Myles Gray	11/21/2011

RECEIVING PARTY DATA

Name:	University of The Witwatersrand, Johannesburg		
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Internal Address:	Braamfontein		
City:	Johannesburg		
State/Country:	SOUTH AFRICA		
Postal Code:	2050		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13320493

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: 17795/006001

NAME OF SUBMITTER: Jeffrey S. Bergman

Total Attachments: 2

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OP \$40.00 13320

PATENT REEL: 027344 FRAME: 0972

ASSIGNMENT - U. S. RIGHTS ONLY

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned individual(s) (referred to herein as the "INVENTOR(S)") hereby assign, transfer, and set over to:

University of The Witwatersrand, Johannesburg

having the following address:

1 Jan Smuts Avenue, Braamfontein Johannesburg 2050 SOUTH AFRICA

(referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest for the United States of America (including without limitation its territories and possessions) in and to the invention known by the following title:

BIOREACTOR PROCESS FOR PRODUCTION OF HYDROGEN FROM BIOMASS

for which the undersigned has/have executed an application for patent in the United States of America on or about this same day, together with said patent application, all divisions, continuations, continuations-in-part, reissues, and extensions thereof, and all United States Letters Patent which may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR(S) if this assignment had not been made.

In addition, the undersigned INVENTOR(S) each hereby agrees:

- To sign and execute any further documents which may be necessary or desirable, lawful, and proper in connection with the prosecution of all applications for patent(s) on the INVENTION in the United States, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY;
- To execute all papers and documents and to perform all lawful acts which may be necessary in connection with claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements;
- 3. To perform all lawful affirmative acts which may be necessary to obtain the grant of a valid and enforceable patent to COMPANY.

The undersigned INVENTOR(S) each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation-in-part, or reissue thereof to COMPANY.

The undersigned INVENTOR(S) each hereby grants to the firm of OSHA LIANG LLP the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.



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indivi	י IN WITNESS duals on the date appearir	WHEREOF, this Assignment hig by such individual's signatur	as been executed by each of the undersigned e:
	21 November D Date	Print or Type Name: _	
	Date	2 nd Inventor Signature: Print or Type Name:	
	Date	Print or Type Name:	
	Date	4 th Inventor Signature: Print or Type Name:	
	This As	ssignment may be signed before two	witnesses who sign below:
WITNESSES	Date	201 / Signature of Witness:	LOBERS JOIN CAVENEY
🕏	Date	Print or Type Name:	REWARD MATANHIRE

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added \underline{after} execution:

U.S. Application Serial No.: 13/320,493

Filing Date: 14 November 2011

OSHA

Intellectual Property Law

RECORDED: 12/06/2011

PATENT REEL: 027344 FRAME: 0974