503286121 04/29/2015

PATENT ASSIGNMENT COVER SHEET

EPAS ID: PAT3332739

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MICHAEL A. LILGA	07/16/2014
GUO-SHUH LEE	07/22/2014
SUH-JANE LEE	07/15/2014

RECEIVING PARTY DATA

Name:	BATTELLE MEMORIAL INSTITUTE
Street Address:	902 BATTELLE BOULEVARD
City:	RICHLAND
State/Country:	WASHINGTON
Postal Code:	99354

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14678729

CORRESPONDENCE DATA

Fax Number: (503)595-5301

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 503 595 5300

Email: carolyn.schlabach@klarquist.com KLARQUIST SPARKMAN, LLP **Correspondent Name:** 121 SW SALMON STREET Address Line 1:

Address Line 2: **SUITE 1600**

Address Line 4: PORTLAND, OREGON 97204

ATTORNEY DOCKET NUMBER: 23-90341-03 NAME OF SUBMITTER: **GILLIAN GARDNER** SIGNATURE: /Gillian Gardner/ **DATE SIGNED:** 04/29/2015

Total Attachments: 4

source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif

> **PATENT** REEL: 035530 FRAME: 0053 503286121

source=Assignment#page4.tif

PATENT REEL: 035530 FRAME: 0054

ASSIGNMENT

WHEREAS, we, Michael A. Lilga, of Richland, Washington, Guo-Shuh Lee, of Richland, Washington, and Suh-Jane Lee, of Richland, Washington, have invented a certain invention, entitled CONVERSION OF 2,3-BUTANEDIOL TO 2-BUTANOL, OLEFINS AND FUELS, which invention is at least partially disclosed in U.S. Provisional Patent Application No. 61/975,568, filed on April 4, 2014, the invention and application collectively referred to hereinafter as "the Invention;" and

WHEREAS, Battelle Memorial Institute, a corporation of Ohio, organized and existing under the laws of the State of Ohio, having a place of business in the City of Richland, Washington, is desirous of acquiring an interest in the Invention and in any patent or any patents to be obtained therefor:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we, Michael A. Lilga, Guo-Shuh Lee, and Suh-Jane Lee, hereby sell, assign, and transfer to Battelle Memorial Institute, the full and exclusive right, title, and interest in and to the Invention, patent application, and patent rights throughout the world, including foreign patent priority rights, the right to file and prosecute International Applications under the Patent Cooperation Treaty, and the right to file and prosecute applications under the European Patent Convention; the Invention, patent application, and letters patent in this or any foreign country, and all corresponding non-provisional applications, divisions, continuations, continuations-in-part, reissues, and extensions thereof, to be held and enjoyed by Battelle Memorial Institute, for its own use and benefit, and for its successors and assigns to the full end of the term for which letters patent may be granted by the United States or any foreign country, as fully and entirely as the same would have been held by us had this assignment and sale not been made, and covenant that we have full right so to do, and agree that we will communicate to Battelle Memorial Institute, or its successors and assigns, any facts known to us respecting the Invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, and reissue applications, make all rightful oaths, and do everything possible to aid Battelle Memorial Institute, its successors, and assigns to obtain and enforce proper patent protection for the Invention in the United States or any foreign country.

We confirm that, at the time the invention was made, we were under an obligation to assign the Invention to Battelle Memorial Institute.

We hereby grant the law firm of Klarquist Sparkman, LLP, the power to insert on this Assignment any further information that may be necessary or desirable in order to comply with all applicable legal requirements, including the rules of the United States Patent and Trademark Office, for submitting and recording this document.

Executed at the place and date opposite our respective signatures below.

Michael A. Lilga

At Richland Washington

on this bar day of July , 2014

STATE OF

COUNTY OF

SS.

This \(\sigma\) day of \(\sigma\) and \(\sigma\) 2014, before me personally came the above-named Michael A. Lilga, who executed the foregoing instrument in my presence, and who acknowledged to me that this instrument was executed by Michael A. Lilga's own free will for the purpose set forth therein.

[SEAL]



Notary Public for Washing to My commission expires: At Rechland, wh Guo-Shuh Lee

On this 22 day of Gity and State)
On this 23 day of Gity and State)

STATE OF WHShinston

COUNTY OF 2 and 3 and 3

At Ruch (and, wh) Suh-Jame Lee (City and State) on this 5 day of July, 2014.	
on this 6 day of 4.2014.	
STATE OF W Ashington)	
STATE OF U Ashington) COUNTY OF Benton) ss.	
This \(\sum_{\text{leq}} \) day of \(\sum_{\text{leq}} \), 2014, before me personally came the above-named Suh-Jan Lee, who executed the foregoing instrument in my presence, and who acknowledged to me that this instrument was executed by Suh-Jane Lee's own free will for the purpose set forth therein.	ie.
Notary Public for Sti Oct	9
ISEALL STATE GOV.	المال