

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Martinus J. Almering	04/06/2010
Purvis K. Ho	02/03/2010
Mitchell E. Loescher	01/25/2010
Montri Vichailak	02/19/2010
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	Catalytic Distillation Technologies
<b>Street Address:</b>	10100 Bay Area Blvd.
<b>City:</b>	Pasadena
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	77507
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	12720173
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(713)228-8778
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
<b>Phone:</b>	7132288600
<b>Email:</b>	khennessey@oshaliang.com
<b>Correspondent Name:</b>	Jeffrey S. Bergman
<b>Address Line 1:</b>	909 Fannin
<b>Address Line 2:</b>	Suite 3500
<b>Address Line 4:</b>	HOUSTON, TEXAS 77010
<b>ATTORNEY DOCKET NUMBER:</b>	17344/216002
<b>NAME OF SUBMITTER:</b>	Jeffrey S. Bergman
Total Attachments: 5	

OP \$40.00 12720173

**501151689**

**PATENT  
 REEL: 024251 FRAME: 0940**

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## ASSIGNMENT – WORLDWIDE

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:

Catalytic Distillation Technologies

having the following address:

10100 Bay Area Blvd.  
Pasadena, Texas 77507

(referred to herein as “COMPANY”), its successors, and assigns, the entire right, title, and interest, worldwide, in and to the invention known by the following title:

### USE OF CATALYTIC DISTILLATION FOR BENZENE SEPARATION AND PURIFICATION

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 Letters Patent (domestic and foreign) 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:

1. 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;
2. 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.

IN WITNESS WHEREOF, this Assignment has been executed by each of the undersigned individuals on the date appearing by such individual's signature:

April 6, 2010  
Date

1<sup>st</sup> Inventor Signature: Martinus J. Almering  
Print or Type Name: Martinus J. Almering

\_\_\_\_\_  
Date

2<sup>nd</sup> Inventor Signature: \_\_\_\_\_  
Print or Type Name: Purvis K. Ho

\_\_\_\_\_  
Date

3<sup>rd</sup> Inventor Signature: \_\_\_\_\_  
Print or Type Name: Mitchell E. Loescher

\_\_\_\_\_  
Date

4<sup>th</sup> Inventor Signature: \_\_\_\_\_  
Print or Type Name: Montri Vichailak

**NOTARY PUBLIC**

State of \_\_\_\_\_  
County of \_\_\_\_\_

Before me personally appeared: Martinus J. Almering Purvis K. Ho  
1<sup>st</sup> Inventor 2<sup>nd</sup> Inventor  
Mitchell E. Loescher Montri Vichailak  
3<sup>rd</sup> Inventor 4<sup>th</sup> Inventor  
\_\_\_\_\_  
5<sup>th</sup> Inventor 6<sup>th</sup> Inventor  
\_\_\_\_\_  
7<sup>th</sup> Inventor 8<sup>th</sup> Inventor

each of whom acknowledged the foregoing instrument to be a free act and deed and also represented that he/she is authorized to execute this Assignment.

Dated: \_\_\_\_\_  
*Notary Public* My commission expires: \_\_\_\_\_

**WITNESSES**

\_\_\_\_\_  
Date Signature of Witness: \_\_\_\_\_  
Print or Type Name: \_\_\_\_\_

\_\_\_\_\_  
Date Signature of Witness: \_\_\_\_\_  
Print or Type Name: \_\_\_\_\_

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:  
U.S. Application Serial No.: 12/720,173 61/158,592  
Filing Date: 3/9/2010 3/9/2009

IN WITNESS WHEREOF, this Assignment has been executed by each of the undersigned individuals on the date appearing by such individual's signature:

Date	<b>1<sup>st</sup> Inventor Signature:</b>	_____
2/3/2010	<b>Print or Type Name:</b>	Martinus J. Almering
Date	<b>2<sup>nd</sup> Inventor Signature:</b>	Purvis K Ho
Date	<b>Print or Type Name:</b>	Purvis K. Ho
Date	<b>3<sup>rd</sup> Inventor Signature:</b>	_____
Date	<b>Print or Type Name:</b>	Mitchell E. Loescher
Date	<b>4<sup>th</sup> Inventor Signature:</b>	_____
Date	<b>Print or Type Name:</b>	Montri Vichailak

**NOTARY PUBLIC**

State of \_\_\_\_\_  
 County of \_\_\_\_\_

Before me personally appeared:

Martinus J. Almering	Purvis K. Ho
1 <sup>st</sup> Inventor	2 <sup>nd</sup> Inventor
Mitchell E. Loescher	Montri Vichailak
3 <sup>rd</sup> Inventor	4 <sup>th</sup> Inventor
_____	_____
5 <sup>th</sup> Inventor	6 <sup>th</sup> Inventor
_____	_____
7 <sup>th</sup> Inventor	8 <sup>th</sup> Inventor

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Notary Public      My commission expires: \_\_\_\_\_

**WITNESSES**

Date	<b>Signature of Witness:</b>	_____
Date	<b>Print or Type Name:</b>	_____
Date	<b>Signature of Witness:</b>	_____
Date	<b>Print or Type Name:</b>	_____

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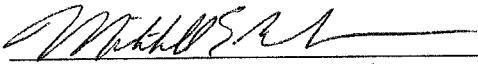
<i>U.S. Application Serial No.:</i>	12/720,173	61/158/592
<i>Filing Date:</i>	3/9/2010	3/9/2009

**OSHA**

Intellectual Property Law

**PATENT**  
**REEL: 024251 FRAME: 0944**

IN WITNESS WHEREOF, this Assignment has been executed by each of the undersigned individuals on the date appearing by such individual's signature:

_____	<b>1<sup>st</sup> Inventor Signature:</b> _____
<b>Date</b>	<b>Print or Type Name:</b> Martinus J. Almering
_____	<b>2<sup>nd</sup> Inventor Signature:</b> _____
<b>Date</b>	<b>Print or Type Name:</b> Purvis K. Ho
1-25-2010	<b>3<sup>rd</sup> Inventor Signature:</b> 
<b>Date</b>	<b>Print or Type Name:</b> Mitchell E. Loescher
_____	<b>4<sup>th</sup> Inventor Signature:</b> _____
<b>Date</b>	<b>Print or Type Name:</b> Montri Vichailak

<b>NOTARY PUBLIC</b>	State of _____	
	County of _____	
	Before me personally appeared: <u>Martinus J. Almering</u> <u>Purvis K. Ho</u>	
	<small>1<sup>st</sup> Inventor</small>	<small>2<sup>nd</sup> Inventor</small>
	<u>Mitchell E. Loescher</u> <u>Montri Vichailak</u>	
	<small>3<sup>rd</sup> Inventor</small>	<small>4<sup>th</sup> Inventor</small>
	_____	_____
	<small>5<sup>th</sup> Inventor</small>	<small>6<sup>th</sup> Inventor</small>
	_____	_____
	<small>7<sup>th</sup> Inventor</small>	<small>8<sup>th</sup> Inventor</small>
each of whom acknowledged the foregoing instrument to be a free act and deed and also represented that he/she is authorized to execute this Assignment.		
<b>Dated:</b> _____		
	<i>Notary Public</i> My commission expires: _____	

<b>WITNESSES</b>	_____	<b>Signature of Witness:</b> _____
	<b>Date</b>	<b>Print or Type Name:</b> _____
	_____	<b>Signature of Witness:</b> _____
	<b>Date</b>	<b>Print or Type Name:</b> _____

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

<i>U.S. Application Serial No.:</i>	12/720,173	61/158/592
<i>Filing Date:</i>	3/9/2010	3/9/2009

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_____	1 <sup>st</sup> Inventor Signature: _____
Date	Print or Type Name: <u>Martinus J. Almering</u>
_____	2 <sup>nd</sup> Inventor Signature: _____
Date	Print or Type Name: <u>Purvis K. Ho</u>
_____	3 <sup>rd</sup> Inventor Signature: _____
Date	Print or Type Name: <u>Mitchell E. Loescher</u>
<u>02 / 19 / 2010</u>	4 <sup>th</sup> Inventor Signature: <u><i>Montri Vichailak</i></u>
Date	Print or Type Name: <u>Montri Vichailak</u>

**NOTARY PUBLIC**

State of \_\_\_\_\_  
 County of \_\_\_\_\_

Before me personally appeared: Martinus J. Almering Purvis K. Ho  
1<sup>st</sup> Inventor 2<sup>nd</sup> Inventor

Mitchell E. Loescher Montri Vichailak  
3<sup>rd</sup> Inventor 4<sup>th</sup> Inventor

\_\_\_\_\_  
5<sup>th</sup> Inventor 6<sup>th</sup> Inventor

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7<sup>th</sup> Inventor 8<sup>th</sup> Inventor

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