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Fax Number: 713 780-7671

9. Signature:

Email Address: kenneth-h-johnson@sbcgløbal.ne

11/19/2012



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PATEINTO ONL : To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below. Name of conveying party(ies) 2. Name and address of receiving party(ies) Name: NOVA Chemicals (International) S.A. Leonid Modestovich Kustov, Aleksey Victorovich Kucherov, Elena Dmitrievna Finashina, Vasily Simanzhenkov and Andrzej Krzywicki Internal Address: Additional name(s) of conveying party(ies) attached? 3. Nature of conveyance/Execution Date(s): Street Address: Avenue de la Gare 14 Execution Date(s)08/22, 08/22, 09/15, 09/15, 09/15 2011, #esp. X Assignment Merger City: 1700 Fribourg Security Agreement Change of Name Joint Research Agreement State: Government Interest Assignment Country: Switzerland Zip: Executive Order 9424, Confirmatory License Other Additional name(s) & address(es) attached? Yes X No 4. Application or patent number(s): This document is being filed together with a new application. A. Patent Application No.(s) B. Patent No.(s) 13/614,754 Additional numbers attached? 5. Name and address to whom correspondence 6. Total number of applications and patents concerning document should be mailed: involved: Name: Kenneth H Johnson 7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00 Internal Address: Authorized to be charged to deposit account X Enclosed Street Address: P. O. Box 630708 None required (government interest not affecting title) 8. Payment Information City: Houston Zip:77263 State:Texas Phone Number: 713 780-7047 Deposit Account Number

sheet, attachments, and documents: Name of Person Signing Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

Kenneth H John**s**øn

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Total number of pages including cover

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Authorized User Name

WORLD WIDE ASSIGNMENT

In consideration of One (\$1.00) Dollar and other good and valuable consideration, the receipt whereof is hereby acknowledged, we,

Leonid Modestovich Kustov, a Russian citizen residing at Khalturinskaya str. 11, apt. 30, 107392 Moscow, Russia;

Aleksey Victorovich Kucherov, a Russian citizen residing at Bratskaya str. 17/2, apt. 197, 111397 Moscow, Russia;

Elena Dmitrievna Finashina, a Russian citizen residing at Kievskaya str. 16, apt. 39, 121165 Moscow, Russia;

Vasily Simanzhenkov, a Canadian citizen residing at 484 Rocky Ridge Drive N.W., Calgary, Alberta, Canada, T3G 5C3;

Andrzej Krzywicki, a Canadian citizen residing at 2403 Westmount Road NW, Calgary, Alberta, Canada, T2N 3N9;

do hereby sell, assign and transfer to **NOVA Chemicals (International) S.A.**, a corporation of Switzerland, having an office at Avenue de la Gare 14, 1700 Fribourg, Switzerland, its successors and assigns, all our right, title and interest in and to our invention entitled:

"Membrane-Supported Catalysts and the Process of Oxidative Dehydrogenation of Ethane Using the Same"

in Canada and in all other countries of the world.

We further undertake to execute without further consideration all lawful papers, all divisional, continuing and reissue applications, make all rightful oaths, and generally do everything possible to assist and enable the said **NOVA Chemicals (International) S.A.**, its successors, assigns and nominees, to obtain and enforce proper patent protection for the said invention.

This indenture shall be binding upon and enure to the benefit of the heirs, executors, administrators, successors and assigns, respectively, of the parties hereto.

SIGNED in the City of	scow, in the Country of Russia, this 22 day of August
WITNESS:	Lleune
	Leonid Modestovich Kustov
	AFFIDAVIT OF EXECUTION
1, Alexey Sakkaro	v, whose full post office address is 119991 1408cow,
Leninsky pospe	et 47, Rusgia
MAKE OATH AND SAY:	
	t and did see Leonid Modestovich Kustov who is personally known to n this assignment duly sign and execute the same.
SWORN before me at the Cit of Moscow, in the Cof Russia, this 22 day of Musur, 2011 A Notary Public	
A Notary Fublic	The second of th

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REEL: 029368 FRAME: 0556

SIGNED in the City of Moscow, in the Country of Russia, this 22 day of August 2011.
WITNESS:
Aleksey Victorovich Kucherov
AFFIDAVIT OF EXECUTION
1, Alexey Sakkarov, whose full post office address is 119991 Moscow
47 Leurusly prospect, Russra
MAKE OATH AND SAY:
That I was personally present and did see Aleksey Victorovich Kucherov who is personally known to me to be the person named in this assignment duly sign and execute the same.
SWORN before me at the City of Mexico finithe Country of Russia, this 2 day of August , 2011
A Notary Public
SIGNED in the City of Moscow, in the Country of Russia, this 22 day of August
2011.
WITNESS:
WITNESS:
WITNESS:
WITNESS: Elena Dmitrievna Finashina AFFIDAVIT OF EXECUTION
WITNESS: Elena Dmitrievna Finashina
WITNESS: Elena Dmitrievna Finashina AFFIDAVIT OF EXECUTION
WITNESS: Elena Dmitrievna Finashina AFFIDAVIT OF EXECUTION 1. Alexey Sakkarar, whose full post office address is 119931 Mascow 47 Lens nelly prospect, Russ, &
WITNESS: Elena Dmitrievna Finashina AFFIDAVIT OF EXECUTION 1. Alexey Sakkarer , whose full post office address is 119931 Mass.com 47 Lensully prospect, Russ, & MAKE OATH AND SAY: That I was personally present and did see Elena Dmitrievna Finashina who is personally known to

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PATENT

REEL: 029368 FRAME: 0557

SIGNED in the City of Calgary, in the Country of Canada, this 15 day of September 2011.
WITNESS: / Vasily Simanzhenkov
AFFIDAVIT OF EXECUTION I,
MAKE OATH AND SAY:
That I was personally present and did see Vasily Simanzhenkov who is personally known to me to be the person named in this assignment duly sign and execute the same.
sworn before me at the City of Calgary, in the Country of Canada, this 15 day of 1974 2011 A Notary Public
SIGNED in the City of Calgary, in the Province of Alberta, this 15 day of September, 2011. WITNESS! Andrzej Krzywicki
AFFIDAVIT OF EXECUTION
I,, whose full post office address is c/o NOVA Chemicals Corporation, 2928 - 16 Street NE, Calgary, Alberta, Canada, T2E 7K7
MAKE OATH AND SAY:
That I was personally present and did see Andrzej Krzywicki who is personally known to me to be the person named in the attached assignment duly signed and execute the same.
SWORN before me at the City of Calgary, in the Province of Alberta, this 15 day of lent 2mter., 2011 A Notary Public in and for the Province of Alberta.

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RECORDED: 11/19/2012

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