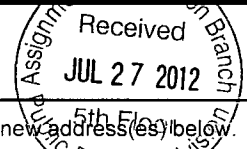


07/27/2012



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HEET



To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

7-27-12

1. Name of conveying party(ies)
Peter Phung Minh Hoang, Benjamin Milton Shaw, and Andy Mak
Additional name(s) of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies)
Name: NOVA Chemicals (International) S.A.
Internal Address: _____
Street Address: Avenue de la Gare 14
City: 1700 Fribourg
State: _____
Country: Switzerland Zip: _____
Additional name(s) & address(es) attached? Yes No

3. Nature of conveyance/Execution Date(s):
Execution Date(s) MAY 3, 6 AND 3, 2011 resp.
 Assignment Merger
 Security Agreement Change of Name
 Joint Research Agreement
 Government Interest Assignment
 Executive Order 9424, Confirmatory License
 Other _____

4. Application or patent number(s): This document is being filed together with a new application.
A. Patent Application No.(s) 13/450,679
Additional numbers attached? Yes No

B. Patent No.(s) _____
Additional numbers attached? Yes No

5. Name and address to whom correspondence concerning document should be mailed:
Name: Kenneth H Johnson
Internal Address: _____
Street Address: P. O. Box 630708
City: Houston
State: Texas Zip: 77263
Phone Number: 713 780-7047
Fax Number: 713 780-7671
Email Address: kenneth-h-johnson@sbcglobal.net

6. Total number of applications and patents involved: _____
7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00
 Authorized to be charged to deposit account
 Enclosed
 None required (government interest not affecting title)

8. Payment Information
Deposit Account Number 07/27/2012 HTUN11 00000015 13450679
01 FC:0021 40.00 DP
Authorized User Name _____

9. Signature: Signature 07/23/2012 Date
Name of Person Signing: KENNETH H JOHNSON
Total number of pages including cover sheet, attachments, and documents: 3

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

ASSIGNMENT

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

HOANG, Peter Phung Minh, a Canadian citizen residing at 78 Hamptons Heights N.W., Calgary, Alberta, Canada, T3A 5W1;

SHAW, Benjamin Milton, a Canadian citizen residing at 8 Quentin Place S.W., Calgary, Alberta, Canada, T2T 6C5; and

MAK, Andy, a Canadian citizen residing at 76 Hidden Valley Gardens N.W., Calgary, Alberta, Canada, T3A 5X3,

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 the United States of America in and to our invention entitled:

"IMPROVING REACTOR OPERABILITY IN A GAS PHASE POLYMERIZATION PROCESS"

for which **Peter Phung Minh Hoang** executed an application for a United States Patent dated the 3 day of May, 2011; **Benjamin Milton Shaw** executed an application for a United States Patent dated the 6 day of May, 2011 and **Andy Mak** executed an application for a United States Patent dated the 3 day of May, 2011.

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 Calgary, in the Province of Alberta, this 03 day of May, 2011.

WITNESS:

Kim Overland

P. Minh Hoang
Peter Phung Minh Hoang

AFFIDAVIT OF EXECUTION

I, *Kim Overland*, 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 **Peter Phung Minh Hoang** 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 Province)
of Alberta, this 9th day of)
May, 2011.)

Kim Overland

Irene Jett
A Notary Public in and for the
Province of Alberta

SIGNED in the City of Calgary, in the Province of Alberta, this 06 day of May, 2011.

WITNESS:

Kim Overland

Benjamin Milton Shaw
Benjamin Milton Shaw

AFFIDAVIT OF EXECUTION

I, Kim Overland, 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 **Benjamin Milton Shaw** 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 9th day of)
May, 2011)

Kim Overland

Steven Jett
A Notary Public in and for the
Province of Alberta

SIGNED in the City of Calgary, in the Province of Alberta, this 03 day of May, 2011.

WITNESS:

Kim Overland

Andy Mak
Andy Mak

AFFIDAVIT OF EXECUTION

I, Kim Overland, 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 **Andy Mak** 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 9th day of)
May, 2011)

Kim Overland

Steven Jett
A Notary Public in and for the
Province of Alberta