

<b>PATENT ASSIGNMENT COVER SHEET</b>
--------------------------------------

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3102448

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT

**CONVEYING PARTY DATA**

Name	Execution Date
JAYA MOHANAN	10/25/2013
PATRICK BURK	10/23/2013
MICHAEL J. BREEN	09/04/2014
BARBARA SLAWSKI	10/25/2013
MAKOTO NAGATA	09/16/2014
YASUYUKI BANNO	09/11/2014
EUNSEOK KIM	09/17/2014

**RECEIVING PARTY DATA**

<b>Name:</b>	BASF CORPORATION
<b>Street Address:</b>	100 PARK AVENUE
<b>City:</b>	FLORHAM PARK
<b>State/Country:</b>	NEW JERSEY
<b>Postal Code:</b>	07932
<b>Name:</b>	N.E. CHEMCAT CORPORATION
<b>Street Address:</b>	WORLD TRADE CENTER BLDG.
<b>Internal Address:</b>	24TH FLOOR
<b>City:</b>	TOKYO
<b>State/Country:</b>	JAPAN
<b>Postal Code:</b>	105-6124
<b>Name:</b>	HEESUNG CATALYSTS CORPORATION
<b>Street Address:</b>	1532, SA-DONG
<b>City:</b>	KYUNGGI-DO
<b>State/Country:</b>	KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF
<b>Postal Code:</b>	404-201

**PROPERTY NUMBERS Total: 1**

Property Type	Number
<b>Application Number:</b>	14536868

**CORRESPONDENCE DATA**

Fax Number:

**PATENT**

**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:** 9147857113  
**Email:** andrea.dececchis@basf.com  
**Correspondent Name:** BASF CORPORATION  
**Address Line 1:** 100 PARK AVENUE  
**Address Line 4:** FLORHAM PARK, NEW JERSEY 07932

<b>ATTORNEY DOCKET NUMBER:</b>	PF73261/CONT
<b>NAME OF SUBMITTER:</b>	MELANIE L. BROWN
<b>SIGNATURE:</b>	/Melanie L. Brown/
<b>DATE SIGNED:</b>	11/11/2014
	This document serves as an Oath/Declaration (37 CFR 1.63).

**Total Attachments: 19**

- source=73261\_signed\_assign\_dec\_all\_inv#page1.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page2.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page3.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page4.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page5.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page6.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page7.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page8.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page9.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page10.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page11.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page12.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page13.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page14.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page15.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page16.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page17.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page18.tif
- source=73261\_signed\_assign\_dec\_all\_inv#page19.tif

COMBINED ASSIGNMENT AND DECLARATION

As an Assignment under 35 U.S.C. 261,

WHEREAS,

I, Jaya Mohanan, am a citizen of the United States of America and reside at 68 Linda Lane, Edison, New Jersey 08820 United States of America;

I, Patrick Burk, am a citizen of the United States of America and reside at 104 Juniper Drive, Freehold, New Jersey 07728 United States of America;

I, Michael J. Breen, am a citizen of the United States of America and reside at 9904 Mark Road, Erie, Pennsylvania 16509 United States of America;

I, Barbara Slawski, am a citizen of the United States of America and reside at 8173 Washington Avenue, North Royalton, Ohio 44133 United States of America;

Makoto Nagata, am a citizen of Japan and with an address of 678, Ipponmatsu, Numazu, Shizuoka, 410-0314 Japan;

Yasuyuki Banno being a citizen of Japan and with an address of 678, Ipponmatsu, Numazu, Shizuoka, 410-0314 Japan; and

Eunseok Kim, being a citizen of Korea and with an address of 404-201, 1532, Sa-Dong, Sangruk-Go, Ansan-City, Kyunggi-Do, Korea

are the joint inventor(s) of the subject matter in

**8-Ring Small Pore Molecular Sieve as High Temperature SCR Catalyst**

for which I (we) have executed an application for Letters Patent of the United States on **October 17, 2013**, having the serial number of **14/056175**; and

WHEREAS, the latest effective date of this Assignment for each listed inventor is the date of the last signature below;

WHEREAS, said effective date of this Assignment for each inventor is within one (1) year of the filing date listed above;

INVENTOR	ASSIGNEE	ASSIGNEE ADDRESS
Jaya Mohanan, Patrick Burk, Michael J. Breen, Barbara Slawski	BASF Corporation	100 Park Avenue, Florham Park, New Jersey 07932 United States of America
Makato Nagata, Yasuyuki Banno	N. E. Chemcat Corporation	24 <sup>th</sup> Floor, World Trade Center Building, 2-4-1, Hamamatsu-cho, Minato-ku, Toyko, Japan 105-6124
Eunseok Kim	Heesung Catalysts Corporation	404-201, 1532, Sa-Dong, Sangruk-Go, Ansan-City, Kyunggi-Do, Korea

060513

WHEREAS, each Assignee is desirous of obtaining the entire right, title and interest in, to and under the said improvements and the said application from his inventor(s):

NOW, THEREFORE, in consideration of good and valuable consideration the receipt of which is hereby acknowledged, the said inventor(s) have sold, assigned, transferred and set over and by these presents do hereby sell, assign, transfer and set over unto its Assignee, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the invention, as described and claimed in the above-referenced patent application, the said improvements, and the said application, all applications derived therefrom and all continuing prosecution and RCE applications, conversions, divisions, renewals and continuations, in whole or in part, thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all applications including PCT applications for Letters Patent or Inventor's Certificates which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent or Inventor's Certificates which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof including the right to claim priority under any international treaty or convention of the above-referenced patent application; and I/We hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to its Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

I/WE HEREBY authorize the above-mentioned Assignee to insert/have inserted into this instrument the serial number and filing date of said patent application.

I/WE HEREBY covenant that I/We have full right to convey the entire interest herein assigned, and that I/We have not executed and will not execute any agreement in conflict herewith.

AND I/WE HEREBY further covenant and agree that I/We will communicate to our Assignee, its successors, legal representatives and assigns, any facts known to me/us respecting said invention and said improvements, and testify in any legal proceeding, sign all lawful papers, execute all continuing prosecution, divisional, continuing, reexamination and reissue applications, make all rightful oaths, and generally do everything possible to aid said Assignee, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for and defend said inventions and improvements in all countries, it being understood that this Assignment shall bind and inure to the benefit of the assigns and legal representatives of all parties hereto.

WHEREAS, the Assignees have no obligation to any of the listed inventors to maintain this Assignment in confidence and thus, Assignees may disclose it to third

parties including recording it with patent offices and use it in any public way including litigation.

As a Declaration under 37 CFR 1.63, for a utility or design application using an Application Data Sheet (37 CFR 1.76), each inventor listed in this document for which a signature has been provided hereby declares that:

This Declaration is directed to United States application Serial **14/056175** filed **October 17, 2013**.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application for which this Declaration is being submitted.

I hereby acknowledge that any willful false statement made in this Declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.











COMBINED ASSIGNMENT AND DECLARATION

As an Assignment under 35 U.S.C. 261,

WHEREAS,

I, Jaya Mohanan, am a citizen of the United States of America and reside at 68 Linda Lane, Edison, New Jersey 08820 United States of America;

I, Patrick Burk, am a citizen of the United States of America and reside at 104 Juniper Drive, Freehold, New Jersey 07728 United States of America;

I, Michael J. Breen, am a citizen of the United States of America and reside at 9904 Mark Road, Erie, Pennsylvania 16509 United States of America;

I, Barbara Slawski, am a citizen of the United States of America and reside at 8173 Washington Avenue, North Royalton, Ohio 44133 United States of America;

Makoto Nagata, am a citizen of Japan and with an address of 678, Ipponmatsu, Numazu, Shizuoka, 410-0314 Japan;

Yasuyuki Banno being a citizen of Japan and with an address of 678, Ipponmatsu, Numazu, Shizuoka, 410-0314 Japan; and

Eunseok Kim, being a citizen of Korea and with an address of 404-201, 1532, Sa-Dong, Sangruk-Go, Ansan-City, Kyunggi-Do, Korea

are the joint inventor(s) of the subject matter in

**8-Ring Small Pore Molecular Sieve as High Temperature SCR Catalyst**

for which I (we) have executed an application for Letters Patent of the United States on **October 17, 2013**, having the serial number of **14/056175**; and

WHEREAS, the latest effective date of this Assignment for each listed inventor is the date of the last signature below;

WHEREAS, said effective date of this Assignment for each inventor is within one (1) year of the filing date listed above;

INVENTOR	ASSIGNEE	ASSIGNEE ADDRESS
Jaya Mohanan, Patrick Burk, Michael J. Breen, Barbara Slawski	BASF Corporation	100 Park Avenue, Florham Park, New Jersey 07932 United States of America
Makato Nagata, Yasuyuki Banno	N. E. Chemcat Corporation	24 <sup>th</sup> Floor, World Trade Center Building, 2-4-1, Hamamatsu-cho, Minato-ku, Toyko, Japan 105-6124
Eunseok Kim	Heesung Catalysts Corporation	404-201, 1532, Sa-Dong, Sangruk-Go, Ansan-City, Kyunggi-Do, Korea

060513

WHEREAS, each Assignee is desirous of obtaining the entire right, title and interest in, to and under the said improvements and the said application from his inventor(s):

NOW, THEREFORE, in consideration of good and valuable consideration the receipt of which is hereby acknowledged, the said inventor(s) have sold, assigned, transferred and set over and by these presents do hereby sell, assign, transfer and set over unto its Assignee, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the invention, as described and claimed in the above-referenced patent application, the said improvements, and the said application, all applications derived therefrom and all continuing prosecution and RCE applications, conversions, divisions, renewals and continuations, in whole or in part, thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all applications including PCT applications for Letters Patent or Inventor's Certificates which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent or Inventor's Certificates which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof including the right to claim priority under any international treaty or convention of the above-referenced patent application; and I/We hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to its Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

I/WE HEREBY authorize the above-mentioned Assignee to insert/have inserted into this instrument the serial number and filing date of said patent application.

I/WE HEREBY covenant that I/We have full right to convey the entire interest herein assigned, and that I/We have not executed and will not execute any agreement in conflict herewith.

AND I/WE HEREBY further covenant and agree that I/We will communicate to our Assignee, its successors, legal representatives and assigns, any facts known to me/us respecting said invention and said improvements, and testify in any legal proceeding, sign all lawful papers, execute all continuing prosecution, divisional, continuing, reexamination and reissue applications, make all rightful oaths, and generally do everything possible to aid said Assignee, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for and defend said inventions and improvements in all countries, it being understood that this Assignment shall bind and inure to the benefit of the assigns and legal representatives of all parties hereto.

WHEREAS, the Assignees have no obligation to any of the listed inventors to maintain this Assignment in confidence and thus, Assignees may disclose it to third

parties including recording it with patent offices and use it in any public way including litigation.

As a Declaration under 37 CFR 1.63, for a utility or design application using an Application Data Sheet (37 CFR 1.76), each inventor listed in this document for which a signature has been provided hereby declares that:

This Declaration is directed to United States application Serial **14/056175** filed **October 17, 2013**.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application for which this Declaration is being submitted.

I hereby acknowledge that any willful false statement made in this Declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.





**IN TESTIMONY WHEREOF**, I hereunto set my hand and seal the day and year s  
et opposite my respective signature.

Date: 09/16/2014  
MM/DD/YYYY

Makoto Nagata  
Inventor's Signature - Makoto Nagata

**IN TESTIMONY WHEREOF**, I hereunto set my hand and seal the day and year s  
et opposite my respective signature.

Date: 9/11/2014  
MM/DD/YYYY

Yasuyuki Banno  
Inventor's Signature - Yasuyuki Banno

**IN TESTIMONY WHEREOF**, I hereunto set my hand and seal the day and year s  
et opposite my respective signature.

Date: \_\_\_\_\_  
MM/DD/YYYY

\_\_\_\_\_  
Inventor's Signature - Eunseok Kim

COMBINED ASSIGNMENT AND DECLARATION

As an Assignment under 35 U.S.C. 261,

WHEREAS,

I, Jaya Mohanan, am a citizen of the United States of America and reside at 68 Linda Lane, Edison, New Jersey 08820 United States of America;

I, Patrick Burk, am a citizen of the United States of America and reside at 104 Juniper Drive, Freehold, New Jersey 07728 United States of America;

I, Michael J. Breen, am a citizen of the United States of America and reside at 9904 Mark Road, Erie, Pennsylvania 16509 United States of America;

I, Barbara Slawski, am a citizen of the United States of America and reside at 8173 Washington Avenue, North Royalton, Ohio 44133 United States of America;

Makoto Nagata, am a citizen of Japan and with an address of 678, Ipponmatsu, Numazu, Shizuoka, 410-0314 Japan;

Yasuyuki Banno being a citizen of Japan and with an address of 678, Ipponmatsu, Numazu, Shizuoka, 410-0314 Japan; and

Eunseok Kim, being a citizen of Korea and with an address of 404-201, 1532, Sa-Dong, Sangruk-Go, Ansan-City, Kyunggi-Do, Korea

are the joint inventor(s) of the subject matter in

**8-Ring Small Pore Molecular Sieve as High Temperature SCR Catalyst**

for which I (we) have executed an application for Letters Patent of the United States on **October 17, 2013**, having the serial number of **14/056175**; and

WHEREAS, the latest effective date of this Assignment for each listed inventor is the date of the last signature below;

WHEREAS, said effective date of this Assignment for each inventor is within one (1) year of the filing date listed above;

INVENTOR	ASSIGNEE	ASSIGNEE ADDRESS
Jaya Mohanan, Patrick Burk, Michael J. Breen, Barbara Slawski	BASF Corporation	100 Park Avenue, Florham Park, New Jersey 07932 United States of America
Makato Nagata, Yasuyuki Banno	N. E. Chemcat Corporation	24 <sup>th</sup> Floor, World Trade Center Building, 2-4-1, Hamamatsu-cho, Minato-ku, Toyko, Japan 105-6124
Eunseok Kim	Heesung Catalysts Corporation	404-201, 1532, Sa-Dong, Sangruk-Go, Ansan-City, Kyunggi-Do, Korea

060513



WHEREAS, each Assignee is desirous of obtaining the entire right, title and interest in, to and under the said improvements and the said application from his inventor(s):

NOW, THEREFORE, in consideration of good and valuable consideration the receipt of which is hereby acknowledged, the said inventor(s) have sold, assigned, transferred and set over and by these presents do hereby sell, assign, transfer and set over unto its Assignee, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the invention, as described and claimed in the above-referenced patent application, the said improvements, and the said application, all applications derived therefrom and all continuing prosecution and RCE applications, conversions, divisions, renewals and continuations, in whole or in part, thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all applications including PCT applications for Letters Patent or Inventor's Certificates which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent or Inventor's Certificates which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof including the right to claim priority under any international treaty or convention of the above-referenced patent application; and I/We hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to its Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

I/WE HEREBY authorize the above-mentioned Assignee to insert/have inserted into this instrument the serial number and filing date of said patent application.

I/WE HEREBY covenant that I/We have full right to convey the entire interest herein assigned, and that I/We have not executed and will not execute any agreement in conflict herewith.

AND I/WE HEREBY further covenant and agree that I/We will communicate to our Assignee, its successors, legal representatives and assigns, any facts known to me/us respecting said invention and said improvements, and testify in any legal proceeding, sign all lawful papers, execute all continuing prosecution, divisional, continuing, reexamination and reissue applications, make all rightful oaths, and generally do everything possible to aid said Assignee, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for and defend said inventions and improvements in all countries, it being understood that this Assignment shall bind and inure to the benefit of the assigns and legal representatives of all parties hereto.

WHEREAS, the Assignees have no obligation to any of the listed inventors to maintain this Assignment in confidence and thus, Assignees may disclose it to third

parties including recording it with patent offices and use it in any public way including litigation.

As a Declaration under 37 CFR 1.63, for a utility or design application using an Application Data Sheet (37 CFR 1.76), each inventor listed in this document for which a signature has been provided hereby declares that:

This Declaration is directed to United States application Serial **14/056175** filed **October 17, 2013**.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application for which this Declaration is being submitted.

I hereby acknowledge that any willful false statement made in this Declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.





**IN TESTIMONY WHEREOF**, I hereunto set my hand and seal the day and year s  
et opposite my respective signature.

Date: \_\_\_\_\_  
MM/DD/YYYY

\_\_\_\_\_  
Inventor's Signature – Makoto Nagata

**IN TESTIMONY WHEREOF**, I hereunto set my hand and seal the day and year s  
et opposite my respective signature.

Date: \_\_\_\_\_  
MM/DD/YYYY

\_\_\_\_\_  
Inventor's Signature – Yasuyuki Banno

**IN TESTIMONY WHEREOF**, I hereunto set my hand and seal the day and year s  
et opposite my respective signature.

Date: 09/17/2014  
MM/DD/YYYY

Eunseok Kim  
Inventor's Signature – Eunseok Kim

060513