#### 502378061 06/10/2013

# PATENT ASSIGNMENT

# Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE:      | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT     |

# **CONVEYING PARTY DATA**

| Name                 | Execution Date |
|----------------------|----------------|
| KIERAN JOHN COLE     | 01/22/2013     |
| COLIN RUSSELL NEWMAN | 01/22/2013     |
| RUTH SAMANTHA SAVAGE | 01/22/2013     |
| GUDMUND SMEDLER      | 01/22/2013     |
| OLIVIER SONNTAG      | 01/22/2013     |
| ISABEL ZOE TINGAY    | 01/22/2013     |

# **RECEIVING PARTY DATA**

| Name:             | JOHNSON MATTHEY PLC  |
|-------------------|----------------------|
| Street Address:   | 5TH FLOOR            |
| Internal Address: | 25 FARRINGDON STREET |
| City:             | LONDON               |
| State/Country:    | UNITED KINGDOM       |
| Postal Code:      | EC4A 4AB             |

# PROPERTY NUMBERS Total: 1

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 13713349 |

# **CORRESPONDENCE DATA**

Fax Number: 6109713022

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 610-971-3000

Email: johnsonmattheyip@matthey.com Correspondent Name: JOHNSON MATTHEY INC. 435 DEVON PARK DRIVE Address Line 1:

Address Line 2: SUITE 600

502378061

WAYNE, PENNSYLVANIA 19087 Address Line 4:

ATTORNEY DOCKET NUMBER: ROY/70056US1/ST/DOC

| NAME OF SUBMITTER:  | JIMMIE D. JOHNSON, JR.   |  |
|---|--------------------------|--|
| Signature:  | /Jimmie D. Johnson, Jr./ |  |
| Date:   | 06/10/2013               |  |
| Total Attachments: 15   |                          |  |
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#### ASSIGNMENT

This Assignment is made the 22<sup>nd</sup> day of January 2013

# BETWEEN

Kieran John Cole, a British Citizen, c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Colin Russell Newman, a British Citizen, c/o 5<sup>th</sup> Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Ruth Samantha Savage, a British Citizen, c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Gudmund Smedler, a Swedish Citizen, c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Olivier Sonntag, a French Citizen, c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Isabel Zoe Tingay, a British Citizen, c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

(each an "Inventor" and together "the Inventors")

#### AND

**JOHNSON MATTHEY PLC**, a company incorporated in England and Wales with company number 33774, the registered office of which is at 5<sup>th</sup> Floor, 25 Farringdon Street, London EC4A 4AB, United Kingdom ("JM").

# WHEREAS:

(A) The Inventors have made an invention ("the Invention"), which is described in the patent specifications entitled "AUTOMOTIVE CATALYTIC AFTERTREATMENT SYSTEM" listed below ("the Applications").

| Country                  | Application Number | Filing Date      |
|--------------------------|--------------------|------------------|
| Germany (DE)             | 102012223021.1     | 13 December 2012 |
| United Kingdom (GB)      | 1121468.1          | 14 December 2011 |
| United Kingdom (GB)      | 1222460.6          | 13 December 2012 |
| United States of America | 13/713,349         | 13 December 2012 |
| (US)                     |                    |                  |
| International (WO)       | PCT/GB2012/053119  | 13 December 2012 |

(B) By virtue of the Inventors' employment within the JM Group, the Invention and the Applications are the property of JM.

- 1. In consideration of their employment within the JM Group, the Inventors hereby assign to JM with full title guarantee:-
  - (i) their legal title in and to the Invention;
  - (ii) their legal title in and to the Applications;
  - (iii) the right to make further applications for Letters Patent or other form of protection for the Invention in any and all countries;
  - (iv) the right to claim priority for such further applications for Letters Patent or other form of protection for the Invention from the Applications; and
  - (iv) the right to any and all Letters Patent or other forms of protection which may be granted in respect of the Invention in any and all countries.

together with the sole and exclusive benefit thereof and all rights, privileges and advantages whatsoever appertaining thereto (as far as the same would but for this assignment arise or accrue to the benefit of the Inventors).

- 2. The Inventors covenant and agree to sign all papers and drawings, take all rightful oaths and do all acts necessary or required by JM to be done for the procurement of Letters Patent or other form of protection for the Invention and for further vesting or confirming the legal title thereof in JM without charge to JM but at its expense.
- This Assignment is governed by and shall be interpreted according to the laws of England and Wales.

IN WITNESS of which this Assignment has been executed under hand the day and year first before written.

SIGNED by the said Kieran John Cole

in the presence of:

600Gg

SIGNED by the said Colin Russell Newman

in the presence of:

| SIGNED by the said Ruth Samantha Savage   |
|---|
| in the presence of :  |
| SIGNED by the said Gudmund Smedler  |
| in the presence of :  |
| SIGNED by the said Olivier Sonntag  |
| in the presence of :  |
| SIGNED by the said Isabel Zoe Tingay  |
| in the presence of :  |
| SIGNED for and on behalf of the said JOHNSON MATTHEY PLC  by Smill (Simple Tuesseville) |
| in the presence of:   |

#### ASSIGNMENT

This Assignment is made the 22<sup>nd</sup> day of January 2013

# BETWEEN

Kieran John Cole, a British Citizen, c/o 5<sup>th</sup> Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Colin Russell Newman, a British Citizen, c/o 5<sup>th</sup> Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Ruth Samantha Savage, a British Citizen, c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Gudmund Smedler, a Swedish Citizen, c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Olivier Sonntag, a French Citizen, c/o 5<sup>th</sup> Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Isabel Zoe Tingay, a British Citizen, c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

(each an "Inventor" and together "the Inventors")

# AND

JOHNSON MATTHEY PLC, a company incorporated in England and Wales with company number 33774, the registered office of which is at 5<sup>th</sup> Floor, 25 Farringdon Street, London EC4A 4AB, United Kingdom ("JM").

# WHEREAS:

(A) The Inventors have made an invention ("the Invention"), which is described in the patent specifications entitled "AUTOMOTIVE CATALYTIC AFTERTREATMENT SYSTEM" listed below ("the Applications").

| Country                  | Application Number | Filing Date      |
|--------------------------|--------------------|------------------|
| Germany (DE)             | 102012223021.1     | 13 December 2012 |
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| United States of America | 13/713,349         | 13 December 2012 |
| (US)                     |                    |                  |
| International (WO)       | PCT/GB2012/053119  | 13 December 2012 |

(B) By virtue of the Inventors' employment within the JM Group, the Invention and the Applications are the property of JM.

- In consideration of their employment within the JM Group, the Inventors hereby assign to JM with full title guarantee:-
  - (i) their legal title in and to the Invention;
  - (ii) their legal title in and to the Applications;
  - (iii) the right to make further applications for Letters Patent or other form of protection for the Invention in any and all countries;
  - (iv) the right to claim priority for such further applications for Letters Patent or other form of protection for the Invention from the Applications; and
  - (iv) the right to any and all Letters Patent or other forms of protection which may be granted in respect of the Invention in any and all countries.

together with the sole and exclusive benefit thereof and all rights, privileges and advantages whatsoever appertaining thereto (as far as the same would but for this assignment arise or accrue to the benefit of the Inventors).

- 2. The Inventors covenant and agree to sign all papers and drawings, take all rightful oaths and do all acts necessary or required by JM to be done for the procurement of Letters Patent or other form of protection for the Invention and for further vesting or confirming the legal title thereof in JM without charge to JM but at its expense.
- 3. This Assignment is governed by and shall be interpreted according to the laws of England and Wales.

IN WITNESS of which this Assignment has been executed under hand the day and year first before written.

| SIGNED by the said Kieran John Cole |  |
|-------------------------------------|--|
|                                     |  |
|                                     |  |
|                                     |  |
| in the presence of :                |  |
|                                     |  |
|                                     |  |

SIGNED by the said Colin Russell Newman

in the presence of;

| SIGNED by the said Ruth Samantha Savage                  |
|--|
| WE Save  |
| in the presence of :                                     |
| •  |
| MARION LICHARDION  |
| SIGNED by the said Gudmund Smedler                       |
| ·  |
| in the presence of :                                     |
| SIGNED by the said Olivier Sonntag                       |
| in the presence of :                                     |
| SIGNED by the said Isabel Zoe Tingay                     |
| in the presence of:                                      |
| SIGNED for and on behalf of the said JOHNSON MATTHEY PLO |
| in the presence of: W.A. Oakey                           |

70056

#### ASSIGNMENT

This Assignment is made the 22<sup>nd</sup> day of January 2013

# BETWEEN

Kieran John Cole, a British Citizen, c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Colin Russell Newman, a British Citizen, c/o 5<sup>th</sup> Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Ruth Samantha Savage, a British Citizen, c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Gudmund Smedler, a Swedish Citizen, c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Olivier Sonntag, a French Citizen, c/o 5<sup>th</sup> Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Isabel Zoe Tingay, a British Citizen, c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

(each an "Inventor" and together "the Inventors")

#### AND

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# WHEREAS:

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| United States of America | 13/713,349         | 13 December 2012 |
| (US)                     |                    |                  |
| International (WO)       | PCT/GB2012/053119  | 13 December 2012 |

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  - (ii) their legal title in and to the Applications;
  - (iii) the right to make further applications for Letters Patent or other form of protection for the Invention in any and all countries;
  - (iv) the right to claim priority for such further applications for Letters Patent or other form of protection for the Invention from the Applications; and
  - (iv) the right to any and all Letters Patent or other forms of protection which may be granted in respect of the Invention in any and all countries.

together with the sole and exclusive benefit thereof and all rights, privileges and advantages whatsoever appertaining thereto (as far as the same would but for this assignment arise or accrue to the benefit of the Inventors).

- 2. The Inventors covenant and agree to sign all papers and drawings, take all rightful oaths and do all acts necessary or required by JM to be done for the procurement of Letters Patent or other form of protection for the Invention and for further vesting or confirming the legal title thereof in JM without charge to JM but at its expense.
- This Assignment is governed by and shall be interpreted according to the laws of England and Wales.

IN WITNESS of which this Assignment has been executed under hand the day and year first before written.

| SIGNED by the said Kieran  | John Cole      |  |  |
|----------------------------|----------------|--|--|
| in the presence of:        |                |  |  |
| SIGNED by the said Colin F | Russell Newman |  |  |
| in the presence of :       |                |  |  |

|   | SIGNED by the said Ruth Samantha Savage  |
|---|--|
|   | in the presence of:  |
|   | SIGNED by the said Gudmund Smedler   |
|   |  |
| * | in the presence of:  |
|   | MARIN ENE  |
|   | SIGNED by the said Olivier Sonntag   |
|   | in the presence of :   |
|   | SIGNED by the said Isabel Zoe Tingay   |
|   | in the presence of :   |
|   | SIGNED for and on behalf of the said JOHNSON MATTHEY PLC  by Sun (Simon Turscrume) |
|   | in the presence of:  |

#### ACCIONMENT

This Assignment is made the 22nd day of January 2013

# BETWEEN

Kieran John Cole, a British Citizen, c/o 5th Floor, 25 Farringdon Street, London, BC4A 4AB, United Kingdom;

Colin Russell Nowman, a British Citizan, c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Ruth Samantha Sayage, a British Citizen, c/o 5<sup>th</sup> Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Gudmund Smedler, a Swedish Citizen, c/o 5th Floor, 25 Farringdon Street, Landon, EC4A 4AB, United Kingdom;

Olivier Sonntag, a French Citizen, c/o Sth Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Isabel Zoe Tingay, a British Citizen. c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

(each an "Inventor" and together "the inventors")

AND

JOHNSON MATTHEY PLC, a company incorporated in England and Wales with company number 33774, the registered office of which is at 5th Floor, 25 Farringdon Street, London EC4A 4AB, United Kingdom ("JM").

# WHEREAS:

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| United Kingdom (GB)        | 1222460.6          | 13 December 2012 |
| United States of America   | 13/713,349         | 13 December 2012 |
| (US)<br>International (WO) | PCT/GB2012/053119  | 13 December 2012 |

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  - (ii) their legal title in and to the Applications;
  - (iii) the right to make further applications for Letters Patent or other form of protection for the Invention in any and all countries;
  - (iv) the right to claim priority for such further applications for Letters Patent or other form of protection for the Invention from the Applications; and
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IN WITNESS of which this Assignment has been executed under hand the day and year first before written.

| SIGNED by the said Roth Samantha Savage  |
|--|
|  |
| in the presence of :   |
|  |
| SIGNED by the said Gudmund Smodler   |
| in the presence of :   |
| SIGNED by the said Olivier Senting   |
| Park manufactures and the second seco |
| in the presence of:  |
| SIGNED by the said lambel Zoe Tingay   |
|  |
| in the presence of :   |
|  |
| SWINED for and one behalf of the said TORINSON MATTHEY PLC   |
| - Sittle (SIMON TURBERLILLE  |
| in the presence of:  |

#### ASSIGNMENT

This Assignment is made the 22<sup>nd</sup> day of January 2013

#### BETWEEN

Kieran John Cole, a British Citizen, c/o 5<sup>th</sup> Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Colin Russeli Newman, a British Citizen, c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Ruth Samantha Savage, a British Citizen, c/o 5<sup>th</sup> Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom:

Gudmund Smedler, a Swedish Citizen, c/o 5<sup>th</sup> Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Olivier Sonntag, a French Citizen, c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

Isabel Zoe Tingay, a British Citizen, c/o 5th Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom;

(each an "Inventor" and together "the Inventors")

# AND

JOHNSON MATTHEY PLC, a company incorporated in England and Wales with company number 33774, the registered office of which is at 5<sup>th</sup> Floor, 25 Farringdon Street, London EC4A 4AB, United Kingdom ("JM").

#### WHEREAS:

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| United Kingdom (GB)      | 1222460.6          | 13 December 2012 |
| United States of America | 13/713,349         | 13 December 2012 |
| (US)                     |                    |                  |
| International (WO)       | PCT/GB2612/653110  | 13 December 2012 |

(B) By virtue of the Inventors' employment within the JM Group, the Invention and the Applications are the property of JM.

- In consideration of their employment within the JM Group, the Inventors hereby assign to JM with full title guarantee:-
  - (i) their legal title in and to the Invention;
  - (ii) their legal title in and to the Applications;
  - (iii) the right to make further applications for Letters Patent or other form of protection for the Invention in any and all countries;
  - (iv) the right to claim priority for such further applications for Letters Patent or other form of protection for the Invention from the Applications; and
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- This Assignment is governed by and shall be interpreted according to the laws of England and Wales.

IN WITNESS of which this Assignment has been executed under hand the day and year first before written.

| SIGNED by the said Ki | eran John Cole   |     |  |
|-----------------------|------------------|-----|--|
|                       |                  |     |  |
| in the presence of:   |                  |     |  |
| SIGNED by the said Co | din Russell Newn | ìan |  |
| in the presence of:   |                  |     |  |

| SIGNED by the said Ruth Samantha Savage   |
|---|
| in the presence of :  |
| SIGNED by the said Gudmund Smedler  |
| in the presence of:   |
| SIGNED by the said Olivier Sonntag  |
| in the presence of:   |
| SIGNED by the said Isabel Zoe Tingay  In the presence of:   |
| SIGNED for and on behalf of the said JOHNSON MATTHEY PLC  by Summer (Simply TURBERVILLE)  in the presence of: |
| WA Oakeu  |

PATENT REEL: 030578 FRAME: 0369

**RECORDED: 06/10/2013**