# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT3948417

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|---|---|
| **SUBMISSION TYPE:** | NEW ASSIGNMENT |
| **NATURE OF CONVEYANCE:** | NUNC PRO TUNC ASSIGNMENT |
| **EFFECTIVE DATE:** | 11/26/2013 |

**CONVEYING PARTY DATA**

| Name | Execution Date |
|---|---|
| ZAHRA NAZARPOOR | 04/27/2016 |
| STEPHEN J. GOLDEN | 04/27/2016 |

**RECEIVING PARTY DATA**

| | |
|---|---|
| **Name:** | CLEAN DIESEL TECHNOLOGIES, INC. (CDTI) |
| **Street Address:** | 1621 FISKE PLACE |
| **City:** | OXNARD |
| **State/Country:** | CALIFORNIA |
| **Postal Code:** | 93033 |

**PROPERTY NUMBERS Total: 4**

| Property Type | Number |
|---|---|
| **Application Number:** | 14090861 |
| **Application Number:** | 14090887 |
| **Application Number:** | 14090915 |
| **Application Number:** | 14090938 |

**CORRESPONDENCE DATA**

**Fax Number:** (704)444-1111

***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.***

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|---|---|
| **ATTORNEY DOCKET NUMBER:** | 063926/475357 |
| **NAME OF SUBMITTER:** | DANE A. BALTICH |
| **SIGNATURE:** | /DANE A. BALTICH/ |
| **DATE SIGNED:** | 07/05/2016 |

**Total Attachments: 5**
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**NUNC PRO TUNC**

**ASSIGNMENT**

THIS ASSIGNMENT, made by us, Zahra Nazarpoor and Stephen J. Golden, the inventors of the applications identified on the attached Schedule A, corrects and replaces the assignments executed by us in connection with the applications listed in the attached Schedule A, which hereinafter will be referred to as "said applications."

Those Assignments for said applications to CLEAN DIESEL TECHNOLOGY INC. (CTDI) were executed by us and subsequently recorded in the Assignment Branch of the United States Patent and Trademark Office, the reel and frame numbers of which are provided in the attached Schedule A. Said Assignments, without any deceptive intent, erroneously identified the Assignee as CLEAN DIESEL TECHNOLOGY INC. (CDTI). The Assignee should have been identified as CLEAN DIESEL TECHNOLOGIES, INC. (CDTI).

WITNESSETH: That,

WHEREAS, we are the joint inventors of certain new and useful improvements in the inventions identified in Schedule A; and

WHEREAS, **CLEAN DIESEL TECHNOLOGIES, INC. (CDTI),** having its principal place of business at 1621 Fiske Place, Oxnard, California 93033, hereinafter referred to as Assignee, acquired our entire right, title, and interest in and to said inventions as described in said applications, and in and to any and all Letters Patents which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold and by these presents do hereby sell, assign, transfer, and convey unto the said assignee, its successors and assigns, our entire right, title, and interest in and to the said invention and said applications, and in and to any and all non-provisional applications, continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patents of the United States of America and all foreign countries or reissues, reexaminations, or extensions thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patents may be granted, together with the right to claim the priority of said applications in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said assignee,

its successors and assigns, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

This Nunc Pro Tunc Assignment is deemed to be effective at least as early as the earliest priority date of said applications.

IN WITNESS WHEREOF, the Assignor, Zahra Nazarpoor, has caused this assignment to be executed this 29th day of April, 2016.

4/29/2016
Date

Zahra Nazarpoor

Witness
Print Name: Alicia MacArthur

IN WITNESS WHEREOF, the Assignor, Stephen J. Golden, has caused this assignment to be executed this 27th day of April, 2016.

4/27/2016
Date

S. J. Golden
Stephen J. Golden

Witness
Print Name: Alicia MacEachern

LEGAL02/36233743v1

## SCHEDULE A

| Application No. | Filing Date | Title | Reel/Frame of Previously Recorded Assignment |
|---|---|---|---|
| 13/891,617 | 05-10-2013 | Copper-Manganese Spinel Catalysts and Methods of Making Same | 031150 / 0817 |
| 13/891,631 | 05-10-2013 | ZPGM Catalytic Converters (TWC application) | 031150 / 0817 |
| 13/891,647 | 05-10-2013 | ZPGM Diesel Oxidation Catalysts and Methods of Making and Using Same | 031150 / 0817 |
| 13/891,668 | 05-10-2013 | Perovskite and Mullite-like Structure Catalysts for Diesel Oxidation and Method of Making Same | 031150 / 0817 |
| 13/904,246 | 05-29-2013 | Variations for Synthesizing Zero Platinum Group Metal Catalyst Systems | 031150 / 0817 |
| 13/904,255 | 05-29-2013 | Systems and Methods Using Cu-Mn Spinel Catalyst on Varying Carrier Material Oxides for TWC Applications | 031150 / 0817 |
| 13/970,172 | 08-19-2013 | Oxygen storage material without rare earth metals | 031150 / 0817 |
| 14/055,334 | 10-16-2013 | Zero-PGM Catalyst with Oxygen Storage Capacity for TWC Systems | 031647 / 0261 |
| 14/055,411 | 10-16-2013 | Thermally Stable Compositions of OSM free of Rare Earth Metals | 031647 / 0261 |
| 14/098,070 | 12-05-2013 | Formation and Stability of Cu-Mn Spinel Phase for ZPGM Catalyst Systems | 032129 / 0940 |
| 14/098,084 | 12-05-2013 | System and Methods for using Copper- Manganese- Iron Spinel as Zero PGM Catalyst for TWC Applications | 032129 / 0940 |
| 14/090,861 | 11-26-2013 | System and Methods for Using Synergized PGM as a Three-Way Catalyst | 032129 / 0940 |

| Application No. | Filing Date | Title | Reel/Frame of Previously Recorded Assignment |
|---|---|---|---|
| 14/090,887 | 11-26-2013 | Oxygen Storage Capacity and Thermal Stability of Synergized PGM Catalyst Systems | 032129/0940 |
| 14/090,915 | 11-26-2013 | Method for Improving Lean Performance of PGM Catalyst Systems: Synergized PGM | 032129 / 0940 |
| 14/090,938 | 11-26-2013 | Systems and Methods for Managing a Synergistic Relationship Between PGM and Copper-Manganese in a Three Way Catalyst Systems | 032129 / 0940 |
| 14/968,516 | 12-14-2015 | Oxygen Storage Material without Platinum Group Metals and Rare Earth Metals | 031150 / 0817 |
| 14/183,081 | 02-18-2014 | Influence of Support Oxide Materials on Coating Processes of ZPGM Catalyst Materials for TWC Applications | 032578 / 0327 |
| 14/251,169 | 04-11-2014 | Synergized PGM Catalyst Systems for Diesel Oxidation Catalyst Applications | 032927 / 0665 |
| 14/251,186 | 04-11-2014 | Systems and Methods for Using Copper-Manganese Spinel as Active Phase for Diesel Oxidation Applications | 032927 / 0665 |