PATENT ASSIGNMENT

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

<table>
<thead>
<tr>
<th>Name</th>
<th>Execution Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thomas Nagel</td>
<td>10/20/2011</td>
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<tr>
<td>Carsten Kruse</td>
<td>10/20/2011</td>
</tr>
<tr>
<td>Gerhard Kahmann</td>
<td>09/16/2011</td>
</tr>
<tr>
<td>Thorsten Duesterdiek</td>
<td>09/16/2011</td>
</tr>
</tbody>
</table>

RECEIVING PARTY DATA

Name: EMITEC Gesellschaft fuer Emissionstechnologie mbH
Street Address: Hauptstrasse 128
City: Lohmar
State/Country: GERMANY
Postal Code: D-53797

Name: Volkswagen AG
Street Address: Berliner Ring 2
City: Wolfsburg
State/Country: GERMANY
Postal Code: D-38440

PROPERTY NUMBERS Total: 1

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<tr>
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<tr>
<td>Application Number:</td>
<td>13225716</td>
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CORRESPONDENCE DATA

Fax Number: (954)925-1101
Phone: 954-925-1100
Email: patents@patentusa.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.

Correspondent Name: Lerner Greenberg Steiner LLP
Docket No.: EM-85033

ASSIGNMENT

WHEREAS We, THOMAS NAGEL, CARSTEN KRUSE, GERHARD KAHMANN and THORSTEN DÜSTERDIEK, residing respectively at Engelskirchen, Troisdorf, Wolfenbüttel and Hannover, Germany, have invented certain new and useful improvements in a

METHOD FOR OPERATING AN EXHAUST GAS PURIFICATION DEVICE HAVING A HEATING APPARATUS AND MOTOR VEHICLE HAVING THE DEVICE

described in International Application No. PCT/EP2010/052462, filed February 26, 2010, and for which an application for Letters Patent of the United States of America was executed on the date of execution of this assignment;

WHEREAS, EMITEC GESELLSCHAFT FÜR EMISSIONSTECHNOLOGIE MBH, a German limited liability company doing business at Lohmar, Germany and VOLKSWAGEN AG, a German corporation doing business at Wolfsburg, Germany are desirous of acquiring the entire interest in the invention, and in any and all Letters Patent of the United States that may be obtained therefor;

NOW, THEREFORE, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold, assigned and transferred, and by these presents do sell, assign and transfer unto the said entities, their legal representatives, successors and assigns, the full and exclusive right to the said invention as fully set forth and described in the above-mentioned application, and to the application and any and all divisions and continuations thereof, and any and all Letters Patent of the United States which may be granted therefor, and any and all reissues of the Letters Patent, the same to be held and enjoyed by the said entities, their legal representatives, successors and assigns, to the full end of the term, for which the Letters Patent may be granted or may be reissued or extended, as fully and entirely as the same would have been held by us, had this assignment and sale not been made.

AND WE hereby authorize the Commissioner for Patents to issue any and all Letters Patent of the United States on the invention or resulting from the application and from any and all divisions and continuations thereof to the said entities as the assignees of the entire right, title and interest in and to the same.

THOMAS NAGEL (L.S.) 10/20/2011

CARSTEN KRUSE (L.S.) 10/20/2011

Witness

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