

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Christos M. Kalamaras	10/20/2019
Tamour Javed	10/20/2019
Esam Z. Hamad	10/18/2019
Remi Mahfouz	10/20/2019
<b>RECEIVING PARTY DATA</b>	
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<b>Street Address:</b>	1 EASTERN AVENUE
<b>City:</b>	DHAHRAN
<b>State/Country:</b>	SAUDI ARABIA
<b>Postal Code:</b>	31311
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16659358
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<b>ATTORNEY DOCKET NUMBER:</b>	38136-0908001
<b>NAME OF SUBMITTER:</b>	KIRSTIN MATTEO
<b>SIGNATURE:</b>	/kirstin matteo/
<b>DATE SIGNED:</b>	10/22/2019
<b>Total Attachments: 2</b>	
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ASSIGNMENT

For valuable consideration, the receipt of which we acknowledge, and intending to be bound legally, we, CHRISTOS M. KALAMARAS, TAMOUR JAVED, ESAM Z. HAMAD, and REMI MAHFOUZ, each individually assigns to SAUDI ARABIAN OIL COMPANY, a corporation formed under the laws of Saudi Arabia and having a principal place of business at 1 Eastern Avenue, Dhahran, Saudi Arabia 31311, and its successors, transferees, and assignees (collectively the "Assignee"), all of our individual and joint right, title, and interest throughout the world in the invention(s) (the "Subject Matter") described in a patent application that names us as inventors, is titled "THERMAL – AND PHOTO-ASSISTED AFTERTREATMENT OF NITROGEN OXIDES," and was or will be filed in the United States Patent and Trademark Office on October 21, 2019, as application 16/659,358 (the "Application"). We authorize the insertion of the filing date and application number above.

This Assignment assigns, in addition to the Subject Matter of the Application, (a) the Application and all other applications that may be made for, and all patents, utility models, design registrations, and other rights of exclusion and inventors' certificates for, any of the Subject Matter (collectively the "Applications and Granted Rights") in every country or region and under every treaty or convention, (b) the right to claim priority based on and the benefit of the filing date of any of the Applications and Granted Rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other applicable treaties or conventions, and (c) the right to pursue, collect, and retain in the Assignee's name or otherwise, damages and any other remedies arising from any past, present, or future infringement of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment.

We authorize the Assignee to apply for and pursue protection for any or all of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment in all countries, regions, and territories of the world, in our names or in the Assignee's name.

We represent and warrant that we have the right and power to make this Assignment and that we have not made and will not make any other assignment that conflicts with this Assignment.

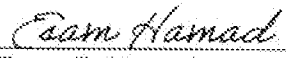
We will communicate to the Assignee (or, at the request of the Assignee to other parties) all known facts in any form relating to the Subject Matter; will execute and provide all oaths and declarations, statements, testimony, assignments, powers of attorney, applications, and documents; and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

  
Christos M. Kalamaras

Date: Oct 20, 2019

  
Tamour Javed

Date: Oct 20, 2019

  
Esam Z. Hamad

Date: 10/18/2019

  
Remi Mahfouz

Date: Oct - 20 - 2019