# 505452476 04/30/2019

## PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT	
CONVEYING PARTY	DATA			
		Name	Execution Date	
ABRAR R.E. ALRASHED			09/12/2017	
CATHLEEN M. CRUDDEN			09/07/2017	
J. HUGH HORTON			12/18/2018	
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Postal Code:	K7L 3N6	K7L 3N6		
PROPERTY NUMBE		Number		
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Application Number:		6305915		
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CORRESPONDENCE	E DATA	613)533-6853		
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## **CONFIRMATORY PATENT ASSIGNMENT**

This Confirmatory Patent Assignment is made from **Abrar R.E. ALRASHED** of 1032 King Street West, Apartment 708, Kingston, Ontario, K7M 9G2, Canada; **Cathleen M. CRUDDEN** of 600 Fay Street, Kingston, Ontario, K7M 4V1, Canada; and **J. Hugh HORTON** of 49-1 Place D'Armes, Kingston, Ontario, K7K 6S2, Canada; hereinafter referred to as "ASSIGNORS", to **Queen's University at Kingston**, whose complete address is Kingston, Ontario, K7L 3N6, Canada; hereinafter referred to as "ASSIGNEES", have previously assigned all right, title and interest, including priority rights, in and to United States Patent Application Serial No. 62/344,001 filed on June 1, 2016 and entitled **Etching Metal Using N-Heterocyclic Carbenes** to Queen's University at Kingston; and ASSIGNORS are inventors of the Invention described and set forth in

## International Patent Application Serial No. PCT/CA2017/050665 filed on June 1, 2017 entitled Etching Metal Using N-Heterocyclic Carbenes; and

WHEREAS, Queen's University at Kingston, whose complete address is Kingston, Ontario, K7L 3N6, Canada, hereinafter referred to as "ASSIGNEE", is desirous of acquiring an interest in the Invention and patent application and in any Letters Patent and Registration which may be granted thereon, and in any patent application and Letters Patent and Registration claiming priority from the same;

For the sum of One Dollar (\$1.00) and other good and valuable consideration, receipt and sufficiency of which is hereby acknowledged by ASSIGNORS, ASSIGNORS do hereby assign to ASSIGNEE all right, title, and interest, including priority rights, in and to the Invention and all subject matter disclosed in the application and to all foreign counterparts thereof, and in and to any Letters Patent and Registration which may hereafter be granted thereon, and in and to any patent application claiming priority from the same, in Canada, the United States, and all countries throughout the world. The right, title, and interest is to be held and enjoyed by ASSIGNEE and ASSIGNEE's successors and assigns as fully and exclusively as it would have been held and enjoyed by ASSIGNORS had this Assignment not been made, for the full term of any Letters Patent and Registration which may be granted thereon, or of any division, renewal, continuation, substitution, conversion, reissue, prolongation, or extension thereof.

## PATENT REEL: 049032 FRAME: 0855

ASSIGNORS further agree that they will, without charge to ASSIGNEE, but at ASSIGNEE's expense, (a) cooperate with ASSIGNEE in the prosecution of patent applications and foreign counterparts on the Invention, (b) execute, verify, acknowledge and deliver all such further papers, including applications and instruments of transfer, and (c) perform such other acts as ASSIGNEE lawfully may request to obtain or maintain Letters Patent and Registration for the Invention in any and all countries, and to vest title thereto in ASSIGNEE, or ASSIGNEE's successors and assigns.

ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks of the United States of America, and the empowered officials of all other governments, to issue any and all Letters Patent and Registration for said Invention or resulting from said application, or from any division, renewal, continuation, substitution, conversion, reissue, prolongation, or extension thereof, to ASSIGNEE, as ASSIGNOR'S' sole assignee.

In testimony whereof I have hereunto set my hand:

this 12 day of Sept\_\_\_\_\_2017 \_\_\_\_\_Abrav

Abrar R.E. Alrashee

### CERTIFICATE

City of Kingston Province of Ontario

On this  $2^{14}$  day of  $3^{14}$  day of  $3^{14}$  2017 appeared before me in person the above **Abrar R.E. Alrashed** and acknowledged the above to be her signature, and that she signed and delivered the above instrument as her voluntary act and deed for the purposes herein set forth.

Añgela LV

Notary Public Province of Ontario

Angels Patricia Lynn, Natury Public, Province of Clatania, I (he arrestation of funitements and the taking of allidority, dar Chann's spensies at Kingston and the outsidiaries, annuts Explores April 21, 2020

In testimony whereof I have hereunto set my hand:

2017 this day of

Cathleen M. Crudden

### CERTIFICATE

City of Kingston Province of Ontario 2017 appeared before me in person the On this day of above Cathleen M. Crudden and acknowledged the above to be her signature, and that she signed and delivered the above instrument as her voluntary act and deed for the purposes herein set forth. Angela Lyon (/ Notary Public Province of Ontario Angels Patricis Lyon, Notary Public, Province of Clataria, Smithed to the attentation of instruments and the taking of attidavity, for Onces's University of Alagatan and its subsidiaries, associated companies and affiliates. Expires April 21, 2020 "man and the second 

PATENT REEL: 049032 FRAME: 0857 In testimony whereof I have hereunto set my hand:

this 18th day of December 2018 J. Hugh Hørton

### CERTIFICATE

City of Kingston Province of Ontario

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On this 18<sup>th</sup> day of December 2018 appeared before me in person the above **J. Hugh Horton** and acknowledged the above to be his signature, and that he signed and delivered the above instrument as his voluntary act and deed for the purposes herein set forth.

Angela Lyon

Notary Public Province of Ontario

Angels Patricis Lynn, Notary Public, Province of Outaria, Musiced as the attestation of instruments and the taking of affidiavits, for Queen's plaiversity at Kingston and its substatiaries, associated companies and affiliates. Expires April 21, 2020

**RECORDED: 04/30/2019**