

## 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>                        |
| SPENCER TROY STOBBER                                                                                                                                                                            | 01/14/2020                                   |
| STUART MAXWELL HARWOOD                                                                                                                                                                          | 01/14/2020                                   |
| SUMATHY RAMAN                                                                                                                                                                                   | 01/14/2020                                   |
| DIMITAR VASILEV TRENEV                                                                                                                                                                          | 01/14/2020                                   |
| <b>RECEIVING PARTY DATA</b>                                                                                                                                                                     |                                              |
| <b>Name:</b>                                                                                                                                                                                    | EXXON MOBIL RESEARCH AND ENGINEERING COMPANY |
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| <b>Internal Address:</b>                                                                                                                                                                        | PO BOX 900                                   |
| <b>City:</b>                                                                                                                                                                                    | ANNANDALE                                    |
| <b>State/Country:</b>                                                                                                                                                                           | NEW JERSEY                                   |
| <b>Postal Code:</b>                                                                                                                                                                             | 08801                                        |
| <b>PROPERTY NUMBERS Total: 1</b>                                                                                                                                                                |                                              |
| <b>Property Type</b>                                                                                                                                                                            | <b>Number</b>                                |
| Application Number:                                                                                                                                                                             | 16723086                                     |
| <b>CORRESPONDENCE DATA</b>                                                                                                                                                                      |                                              |
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| <b>ATTORNEY DOCKET NUMBER:</b>                                                                                                                                                                  | P201911823US01/IBMP662US                     |
| <b>NAME OF SUBMITTER:</b>                                                                                                                                                                       | DEIDRA D. RITCHERSON                         |
| <b>SIGNATURE:</b>                                                                                                                                                                               | /Deidra D. Ritcherson/                       |
| <b>DATE SIGNED:</b>                                                                                                                                                                             | 01/30/2020                                   |
| <b>Total Attachments: 1</b>                                                                                                                                                                     |                                              |



Family Number: P201911823US01Application Number (if any): 16/723,086  
Filed: December 20, 2019**NON-PROVISIONAL ASSIGNMENT  
INVENTOR or INVENTORS:**

Spencer Troy Stober

Stuart Maxwell Harwood

Sumathy Raman

Dimitar Vasilev Trenev

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned person(s) named above, herein referred to as UNDERSIGNED, hereby agree(s) as follows:

1) UNDERSIGNED hereby assign(s) to ExxonMobil Research and Engineering Company, a Delaware Corporation, its successors, legal representatives and assigns, herein referred to collectively as ASSIGNEE, free from all encumbrances, the entire right, title and interest, including all rights to sue for past infringement, for the United States and all foreign countries, in and to UNDERSIGNED's invention, discovery, or improvement described in United States Provisional Patent Application entitled

**QUANTUM COMPUTING THERMODYNAMIC OBSERVABLES OF A CHEMICAL SYSTEM**

which undersigned has read and understood and to any and all patent applications and patents covering any invention described in this application and claiming priority based on this application, including the right to claim priority from this application for any patent applications filed in the United States and any country worldwide under the Paris Convention or equivalent reciprocal provisions for any subsequent application, continuations, continuations-in-part, divisions, reissues, reexaminations, and extensions.

2) UNDERSIGNED agree(s) upon the request of ASSIGNEE to execute any and all applications for and documents relating to obtaining patents and the prosecution thereof for said invention, discovery, or improvement, and any continuations or divisions of such applications or substitutes therefor or registrations thereof, and any specific separate assignments of any of the above required for recording in the United States Patent and Trademark Office and any foreign patent office that ASSIGNEE may deem necessary or expedient.

3) UNDERSIGNED agree(s) that in the event of any application based on said assigned invention, discovery, or improvement, or patent issued thereon, or any reissue or application for the reissue thereof, becoming involved in priority of invention proceedings, or in any reexamination or reissue proceedings, UNDERSIGNED will cooperate with ASSIGNEE to the best of the ability of UNDERSIGNED in the matter of preparing and executing all documents and giving and producing evidence in support thereof.

4) UNDERSIGNED agree(s) to perform upon ASSIGNEE's request any and all affirmative acts to obtain United States and foreign patents covering said invention or improvement and to vest all rights therein hereby conveyed to ASSIGNEE, as fully and as entirely as the same would have been held and enjoyed by UNDERSIGNED if this assignment and sale had not been made, including, but not limited to assisting in the execution of priority claims, declarations, affidavits, or other papers relating thereto, and any specific separate assignments of any of the above required for recording in the United State Patent and Trademark Office or other foreign country or patent office or patent organization, that ASSIGNEE may deem necessary or expedient. The Assignment is binding on the UNDERSIGNED successors, heir and assigns.

IN WITNESS WHEREOF, this assignment has been executed by UNDERSIGNED on the date opposite UNDERSIGNED's NAME.

Date 1/14/20Inventor [Signature] (I.S.)  
Spencer Troy StoberWitness [Signature]Date 1/14/2020Inventor [Signature] (I.S.)  
Stuart Maxwell HarwoodWitness [Signature]Date 1/14/20Inventor [Signature] (I.S.)  
Sumathy RamanWitness [Signature]Date 1/14/20Inventor [Signature] (I.S.)  
Dimitar Vasilev TrenevWitness [Signature]