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PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
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| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------------|----------------|
| KATALIN SZENDREI-TEMESI | 02/16/2018 |
| PIRMIN GANTER | 02/16/2018 |
| OLALLA SANCHEZ-SOBRADO | 02/16/2018 |
| ALEXANDER HUNGER | 02/22/2018 |
| BETTINA LOTSCH | 02/20/2018 |

RECEIVING PARTY DATA

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| City: | MUNICH | |
| State/Country: | GERMANY | |
| Postal Code: | 80539 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15538493 |

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| ATTORNEY DOCKET NUMBER: | MFP0119US (M11511PWOUS) | |
|-------------------------|--|--|
| NAME OF SUBMITTER: | SCOTT A. MCBAIN | |
| SIGNATURE: | /SCOTTAMcBAIN/ | |
| DATE SIGNED: | 03/06/2018 | |
| | This document serves as an Oath/Declaration (37 CFR 1.63). | |

PATENT REEL: 045120 FRAME: 0821

Total Attachments: 4 source=8053941#page1.tif source=8053941#page2.tif source=8053941#page3.tif source=8053941#page4.tif

PATENT REEL: 045120 FRAME: 0822 Docket No.: MFP0119US (M11511PWOUS)

ASSIGNMENT

WHEREAS, We, Katalia Szendrei-Temesi of Waldfriedhofstr. 1, München, Germany 81377; Primin Ganter of Steigstr. 48, Stuttgart, Germany 70565; Olalla Sanchez-Sobrado of Rua das Baleixas 5, Santa Lucia-Eixo, Santiago de Compostela (A Coruna), Spain, 15893; Alexander Hunger of Limburgerstr. 67, Leipzip, Germany 04229 and Bettina Lotsch of Seestr. 35, Pähl, Germany 82396 ("Assignors"), have made a certain new and useful invention as set forth in an application for United States Letters Patent, entitled GAS AND VAPOR SENSING DEVICES BASED ON 2D NANOSHEET MATERIAL for which an application for a United States Letters Patent was filed on June 21, 2017 having Serial No. 15/538,493.

AND WHEREAS, MAX-PLANCK-GESELLSCHAFT ZUR FÖRDERUNG DER WISSENSCHAFTEN E.V., a corporation organized under the laws of Germany, and having a place of business at Hofgartenstraße 8, Munich 80539, Germany ("Assignee") are desirous of acquiring the entire right, title and Interest in and to said invention and in any and all Letters Patent of the United States and foreign countries which may be obtained therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt for and sufficiency of which is hereby acknowledged. Assignors do hereby sell, assign, transfer and set over unto Assignee, its legal representatives, successors, and assigns, the entire right, title and interest in and to the invention as set forth in the above-mentioned application, including the right of priority and including any continuations, continuations-in-part, divisions, reissues, recaminations or extensions thereof, and in and to any and all patents of the United States and foreign countries which may be issued for the Invention;

UPON SAID CONSIDERATIONS, Assignors hereby agree with the Assignee that Assignors will not execute any writing or do any act whatsoever conflicting with these presents, and that Assignors will, at any time upon request, without further or additional consideration but at the expense of the Assignee, execute such additional assignments and other writings and do such additional acts as the Assignee may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, continuations, continuations-in-part, reexamined, reissued, or extended Letters Patient of the United States or of any and all foreign countries on the Invention, and in enforcing any rights in any action accruing as a result of such applications or patents, by giving testimony in any proceedings or transactions involving such applications or patents, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of the assigns and legal representatives of Assignor and Assignee;

AND Assignors request the Commissioner for Patents and Trademarks to issue any Letters Patent of the United States which may be issued for the Invention to the Assignee, its legal representatives, successors or assigns, as the sole owner of the entire right, title and interest in and to said patent and the Invention covered thereby.

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| >. Date | PIRMIN GANTER |
| > Date | OLALLA SANCHEZ-ROBRADO |
| Date | ALEXANDER NUNGER |
| X. Date | BETTINA LOTSCH |

Date KATALIN SZENDREI-TEMESI

ALEXANDER DATE

Date OLALLA SANCHEZ-SOBRADO

ALEXANDER HUNGER

BALLA SANCHEZ-SOBRADO

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| Date | KATALIN SZENDREI-TEMESI |
| * | × |
| Date | PIRMIN GANTER |
| ×16/02/18 | - Calalul - |
| Date | OLALIA SANCHEZ-SOBRADO |
| ٧ | × |
| Date | ALEXANDER HUNGER |
| | X |
| Date | BETTINA LOTSCH |

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