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PATENT ASSIGNMENT COVER SHEET

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

CONVEYING PARTY DATA

| Name | Execution Date |
|----------------|----------------|
| TAKUYA OHHASHI | 10/09/2020 |
| YUKIHISA WADA | 10/09/2020 |

RECEIVING PARTY DATA

| Name: | TOKYO OHKA KOGYO CO., LTD. |
|-------------------|------------------------------|
| Street Address: | 150, NAKAMARUKO, NAKAHARA-KU |
| Internal Address: | KANAGAWA |
| City: | KAWASAKI-SHI |
| State/Country: | JAPAN |
| Postal Code: | 211-0012 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 17095159 |

CORRESPONDENCE DATA

Fax Number: (949)760-9502

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

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 9497600404

Email: efiling@knobbe.com

Correspondent Name: KNOBBE MARTENS OLSON & BEAR, LLP

Address Line 1: 2040 MAIN STREET, 14TH FLOOR

Address Line 4: **IRVINE, CALIFORNIA 92614**

| ATTORNEY DOCKET NUMBER: | SHIGA7.544AUS |
|-------------------------|-------------------|
| NAME OF SUBMITTER: | NEIL S. BARTFELD |
| SIGNATURE: | /Neil S.Bartfeld/ |
| DATE SIGNED: | 12/01/2020 |

Total Attachments: 4

source=2020-11-11 Declaration Assignment - SHIGA7.544AUS#page1.tif source=2020-11-11 Declaration Assignment - SHIGA7.544AUS#page2.tif source=2020-11-11 Declaration Assignment - SHIGA7.544AUS#page3.tif source=2020-11-11 Declaration Assignment - SHIGA7.544AUS#page4.tif

Attorney Reference No.: SHIGA7.544AUS

Page 1 of 2

Title: RUTHENIUM-ETCHING SOLUTION, METHOD FOR MANUFACTURING RUTHENIUM-ETCHING SOLUTION,

METHOD FOR PROCESSING OBJECT TO BE PROCESSED, AND METHOD FOR MANUFACTURING

RUTHENIUM-CONTAINING WIRING

Legal Names of All Inventors: Takuya OHHASHI; and Yukihisa WADA

Please Direct All Correspondence to Customer Number 20995

Declaration of Inventors

As an individual executing this Declaration, I hereby declare that:

This Declaration is directed to the invention identified above that: (check one)

| ** | ls att | tached, v | where "atta | ched' | ' means | filed | concurrently with. | |
|-----------|--------|-----------|-------------|-------|-----------|--------|--------------------|--|
| | Was | filed on | | as | U.S. Ap | olicat | ion No. | |
| | Was | filed on | | as In | ternation | al A | pplication No. | |

The above-identified application was made or authorized to be made by me.

I believe I am the original inventor or an original joint inventor of a claimed invention in the application,

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Assignment from Inventors

WHEREAS, the inventor(s) identified above (individual(s) hereinafter "ASSIGNOR") invented certain new and useful improvements, technology, inventions, developments, ideas or discoveries while under an obligation to assign related to the title identified above (collectively hereinafter referred to as the "Work") for which the application identified above has been or will be filed (hereinafter the "Application").

AND WHEREAS, <u>TOKYO OHKA KOGYO CO., LTD.</u> with its principal place of business at <u>150, Nakamaruko</u>, <u>Nakahara-ku</u>, <u>Kawasaki-shi</u>, <u>Kanagawa 211-0012 Japan</u> (hereinafter the "ASSIGNEE"), desires to acquire the entire right, title, and interest in and to the Application and the Work.

NOW, THEREFORE, for good and valuable consideration of which receipt is hereby acknowledged, ASSIGNOR hereby acknowledges that ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in the Application and the Work, including all patent properties filed or issued upon the Application and the Work; where "Patent Properties" include, but are not limited to:

| ali previsional applications | relating thereto | (including but no | ot limited to U.S. | Provisional Application |
|------------------------------|------------------|-------------------|--------------------|--------------------------|
| No(s). | filed | | (respectively i | f plural applications)); |
| | | | | , |

all nonprovisional applications claiming priority to aforementioned provisional(s) and/or the present Application, including, all divisions, continuations, continuations-in-part, and reissues, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof; and

all rights of priority under International Conventions and any related Letters Patent which may hereafter be granted or filed in any country or countries foreign to the United States, all extensions, renewals and reissues thereof.

ASSIGNOR hereby acknowledges the ASSIGNEE as the Applicant for all aforementioned patent properties, and authorizes and requests the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as

Attorney Reference No.: SHIGA7.544AUS

Page 2 of 2

Title: RUTHENIUM-ETCHING SOLUTION, METHOD FOR MANUFACTURING RUTHENIUM-ETCHING SOLUTION, METHOD FOR PROCESSING OBJECT TO BE PROCESSED, AND METHOD FOR MANUFACTURING

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Legal Names of All Inventors: Takuya OHHASHI; and Yukihisa WADA

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aforesaid, to issue all related Letters Patent to the ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND ASSIGNOR DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said Letters Patent before or after issuance.

AND ASSIGNOR DOES HEREBY covenant and agree that ASSIGNOR will communicate to said ASSIGNEE, its successors, legal representatives and assigns, any facts known to ASSIGNOR respecting the Work, and testify in any legal proceeding, assist in the preparation of any other Patent Property relating to the Application and the Work or any improvements made thereto, sign/execute all lawful papers, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for the Work in all countries.

| 1.Legal Name of Inventor: <u>Takuya OHHASHI</u> | | |
|---|--------|--|
| Signature of Inventor: 7. Ohashī | Date:_ | October 9, 2020 |
| 2.Legal Name of Inventor: Yukihisa WADA | | |
| Signature of Inventor: | Date: | T. |
| 3.Legal Name of Inventor: | | |
| Signature of Inventor: | Date: | |
| 4.Legal Name of Inventor: | | |
| Signature of inventor: | Date: | THE STATE OF THE S |
| 5,Legal Name of Inventor: | | |
| Signature of inventor: | Date:_ | |
| 6.Legal Name of Inventor: | | |
| Signature of Inventor: | Date: | |

Attorney Reference No.: SHIGA7.544AUS

Page 1 of 2

Title: RUTHENIUM-ETCHING SOLUTION, METHOD FOR MANUFACTURING RUTHENIUM-ETCHING SOLUTION,

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This Declaration is directed to the invention identified above that: (check one)

| ** | Is atta | ached, where | "attached" means filed concurrently with. |
|-----------|---------|--------------|---|
| | Was | filed on | as U.S. Application No. |
| | Was f | filed on | as International Application No. |

The above-identified application was made or authorized to be made by me.

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| ali pro | ivisional application | ns relating thereto |) (including bu | It not limited | to U.S. Provi | isional Application |
|---------|-----------------------|---------------------|-----------------|----------------|------------------|---------------------|
| No(s) | | filed | | (respe | ctively if plura | al applications)); |
| | | | | | • . | |

all nonprovisional applications claiming priority to aforementioned provisional(s) and/or the present Application, including, all divisions, continuations, continuations-in-part, and reissues, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof; and

all rights of priority under International Conventions and any related Letters Patent which may hereafter be granted or filed in any country or countries foreign to the United States, all extensions, renewals and reissues thereof.

ASSIGNOR hereby acknowledges the ASSIGNEE as the Applicant for all aforementioned patent properties, and authorizes and requests the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as

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Page 2 of 2

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AND ASSIGNOR DOES HEREBY covenant and agree that ASSIGNOR will communicate to said ASSIGNEE, its successors, legal representatives and assigns, any facts known to ASSIGNOR respecting the Work, and testify in any legal proceeding, assist in the preparation of any other Patent Property relating to the Application and the Work or any improvements made thereto, sign/execute all lawful papers, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for the Work in all countries.

| 1.Legal Name of Inventor: <u>Takuya OHHASHI</u> | | | |
|---|---|-------|---|
| Signature of Inventor: | *************************************** | Date: | *************************************** |
| 2. Legal Name of Inventor: Yukihisa WADA | , | 1 | |
| Signature of Inventor: Yukihisa ' | Wada | Date: | October 9, 2020 |
| 3.Legal Name of Inventor: | | | |
| Signature of Inventor: | *************************************** | Date: | |
| 4. Legal Name of Inventor: | | | |
| Signature of Inventor: | *************************************** | Date: | *************************************** |
| 5. Legal Name of Inventor: | | | |
| Signature of Inventor: | nnnnnnnnn00000000a-004a | Date: | |
| 6. Legal Name of Inventor: | | | |
| Signature of Inventor: | 200000000000000000000000000000000000000 | Date: | · |
| | | | |

PATENT REEL: 054503 FRAME: 0901

RECORDED: 12/01/2020