

## 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>
YOSHIKI WATANABE	11/22/2019
KEIKO OHTA	11/09/2019
YUKIKO KIKUGAWA	11/08/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	NORITAKE CO., LIMITED
<b>Street Address:</b>	3-1-36 NORITAKESHINMACHI, NISHI-KU
<b>City:</b>	NAGOYA-SHI, AICHI-KEN
<b>State/Country:</b>	JAPAN
<b>Postal Code:</b>	451-8501
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16599901
<b>CORRESPONDENCE DATA</b>	
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<b>ATTORNEY DOCKET NUMBER:</b>	76253-1010
<b>NAME OF SUBMITTER:</b>	BRADFORD R. CZERWONKY
<b>SIGNATURE:</b>	/brc/
<b>DATE SIGNED:</b>	12/06/2019
<b>Total Attachments: 9</b>	
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## PATENT ASSIGNMENT

WHEREAS, I, **Yoshiki WATANABE**, a citizen of Japan having a mailing address at **3-1-36 Noritakeshinmachi, Nishi-ku, Nagoya-shi, Aichi-ken, 451-8501, Japan** (hereinafter "**Assignor**"), have invented certain inventions and improvements disclosed in the Application for United States Patent entitled **Ag-Pd CORE-SHELL PARTICLE AND USE THEREOF**, filed in the United States Patent and Trademark Office on October 11, 2019, bearing Serial No. 16/599,901, and listing as inventor(s): **Yoshiki WATANABE, Keiko OHTA, Yukiko KIKUGAWA** (hereinafter "**Patent Application**");

WHEREAS, **NORITAKE CO., LIMITED**, a Corporation of Japan having its principal place of business at **3-1-36 Noritakeshinmachi, Nishi-ku, Nagoya-shi, Aichi-ken, 451-8501, Japan** (hereinafter "**Assignee**"), is desirous of acquiring an interest in the same;

NOW, THEREFORE, for and in consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I do sell, assign and transfer unto Assignee, the full, exclusive and entire right, title and interest: (i) in and to all inventions and improvements disclosed and described in the Patent Application, (ii) in and to the Patent Application, (iii) in and to any divisional, continuation, and continuation-in-part applications describing in whole or in part the inventions and improvements disclosed and described in the Patent Application, preparatory to obtaining Patents of the United States therefore, (iv) in and to any reissues of the aforementioned, (v) in and to any provisional patent applications filed in the United States describing in whole or in part the inventions and improvements disclosed and described in the Patent Application, from which priority may be claimed under Title 35 of the United States Code, and (vi) in and to the right to claim any applicable foreign and domestic priority rights arising from such provisional patent applications; I also hereby acknowledge that an obligation for this assignment and for the assignment of all related subject matter arose before the making of the invention and improvements disclosed and described in the Patent Application; and I hereby request the Commissioner of Patents to issue any and all Patents of the United States resulting from the Patent Application, or from a division, continuation, continuation-in-

part, or reissue thereof, to Assignee, for its interest and for the sole use and benefit of Assignee and its assigns and legal representatives;

For the same consideration, I do sell, assign and transfer to Assignee the full, exclusive and entire right, title and interest in and to any foreign application or applications corresponding to the Patent Application ("**Foreign Applications**"), in whole or in part, in countries other than the United States, in and to any Patents and similar protective rights granted on the Foreign Applications, and in and to the right to claim any applicable priority rights arising from or required for the Foreign Applications under the terms of any applicable conventions, treaties, statutes, or regulations; the Foreign Applications to be filed and issued in the name of Assignee or its respective designees, insofar as permitted by applicable law;

AND, for the same consideration, I agree to sign all lawful papers, execute all divisional, continuation, continuation-in-part, reissue and other applications, make all assignments and rightful oaths, and generally do everything possible to aid Assignee and his or her successors, assigns, and nominees to obtain and enforce proper protection for all the inventions and improvements disclosed in the Patent Application in all countries throughout the world.

Assignor – Yoshiki WATANABE

November 22, 2019

Date

渡邊 豊樹

Signature (Yoshiki WATANABE)

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Witnessed before me, \_\_\_\_\_ (*printed name of witness*), on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally appeared **Yoshiki WATANABE**, who signed and acknowledged the foregoing Assignment as his or her free act and deed.

\_\_\_\_\_  
Signature (Witness)

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Witnessed before me, \_\_\_\_\_ (*printed name of witness*), on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally appeared **Yoshiki WATANABE**, who signed and acknowledged the foregoing Assignment as his or her free act and deed.

\_\_\_\_\_  
Signature (Witness)

## PATENT ASSIGNMENT

WHEREAS, I, **Keiko OHTA**, a citizen of Japan having a mailing address at **3-1-36 Noritakeshinmachi, Nishi-ku, Nagoya-shi, Aichi-ken, 451-8501, Japan** (hereinafter "**Assignor**"), have invented certain inventions and improvements disclosed in the Application for United States Patent entitled **Ag-Pd CORE-SHELL PARTICLE AND USE THEREOF**, filed in the United States Patent and Trademark Office on October 11, 2019, bearing Serial No. 16/599,901, and listing as inventor(s): **Yoshiki WATANABE, Keiko OHTA, Yukiko KIKUGAWA** (hereinafter "**Patent Application**");

WHEREAS, **NORITAKE CO., LIMITED**, a Corporation of Japan having its principal place of business at **3-1-36 Noritakeshinmachi, Nishi-ku, Nagoya-shi, Aichi-ken, 451-8501, Japan** (hereinafter "**Assignee**"), is desirous of acquiring an interest in the same;

NOW, THEREFORE, for and in consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I do sell, assign and transfer unto Assignee, the full, exclusive and entire right, title and interest: (i) in and to all inventions and improvements disclosed and described in the Patent Application, (ii) in and to the Patent Application, (iii) in and to any divisional, continuation, and continuation-in-part applications describing in whole or in part the inventions and improvements disclosed and described in the Patent Application, preparatory to obtaining Patents of the United States therefore, (iv) in and to any reissues of the aforementioned, (v) in and to any provisional patent applications filed in the United States describing in whole or in part the inventions and improvements disclosed and described in the Patent Application, from which priority may be claimed under Title 35 of the United States Code, and (vi) in and to the right to claim any applicable foreign and domestic priority rights arising from such provisional patent applications; I also hereby acknowledge that an obligation for this assignment and for the assignment of all related subject matter arose before the making of the invention and improvements disclosed and described in the Patent Application; and I hereby request the Commissioner of Patents to issue any and all Patents of the United States resulting from the Patent Application, or from a division, continuation, continuation-in-

part, or reissue thereof, to Assignee, for its interest and for the sole use and benefit of Assignee and its assigns and legal representatives;

For the same consideration, I do sell, assign and transfer to Assignee the full, exclusive and entire right, title and interest in and to any foreign application or applications corresponding to the Patent Application ("**Foreign Applications**"), in whole or in part, in countries other than the United States, in and to any Patents and similar protective rights granted on the Foreign Applications, and in and to the right to claim any applicable priority rights arising from or required for the Foreign Applications under the terms of any applicable conventions, treaties, statutes, or regulations; the Foreign Applications to be filed and issued in the name of Assignee or its respective designees, insofar as permitted by applicable law;

AND, for the same consideration, I agree to sign all lawful papers, execute all divisional, continuation, continuation-in-part, reissue and other applications, make all assignments and rightful oaths, and generally do everything possible to aid Assignee and his or her successors, assigns, and nominees to obtain and enforce proper protection for all the inventions and improvements disclosed in the Patent Application in all countries throughout the world.

Assignor -- Keiko OHTA

November 9, 2019

Date

Keiko OHTA

Signature (Keiko OHTA)

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Witnessed before me, \_\_\_\_\_ (*printed name of witness*), on this  
\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally appeared **Keiko OHTA**, who signed and  
acknowledged the foregoing Assignment as his or her free act and deed.

\_\_\_\_\_  
Signature (Witness)

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\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally appeared **Keiko OHTA**, who signed and  
acknowledged the foregoing Assignment as his or her free act and deed.

\_\_\_\_\_  
Signature (Witness)



## PATENT ASSIGNMENT

WHEREAS, I, Yukiko KIKUGAWA, a citizen of Japan having a mailing address at 3-1-36 Noritakeshinmachi, Nishi-ku, Nagoya-shi, Aichi-ken, 451-8501, Japan (hereinafter "Assignor"), have invented certain inventions and improvements disclosed in the Application for United States Patent entitled Ag-Pd CORE-SHELL PARTICLE AND USE THEREOF, filed in the United States Patent and Trademark Office on October 11, 2019, bearing Serial No. 16/599,901, and listing as inventor(s): Yoshiaki WATANABE, Keiko OHTA, Yukiko KIKUGAWA (hereinafter "Patent Application");

WHEREAS, NORITAKE CO., LIMITED, a Corporation of Japan having its principal place of business at 3-1-36 Noritakeshinmachi, Nishi-ku, Nagoya-shi, Aichi-ken, 451-8501, Japan (hereinafter "Assignee"), is desirous of acquiring an interest in the same;

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part, or reissue thereof, to Assignee, for its interest and for the sole use and benefit of Assignee and its assigns and legal representatives;

For the same consideration, I do sell, assign and transfer to Assignee the full, exclusive and entire right, title and interest in and to any foreign application or applications corresponding to the Patent Application ("**Foreign Applications**"), in whole or in part, in countries other than the United States, in and to any Patents and similar protective rights granted on the Foreign Applications, and in and to the right to claim any applicable priority rights arising from or required for the Foreign Applications under the terms of any applicable conventions, treaties, statutes, or regulations; the Foreign Applications to be filed and issued in the name of Assignee or its respective designees, insofar as permitted by applicable law;

AND, for the same consideration, I agree to sign all lawful papers, execute all divisional, continuation, continuation-in-part, reissue and other applications, make all assignments and rightful oaths, and generally do everything possible to aid Assignee and his or her successors, assigns, and nominees to obtain and enforce proper protection for all the inventions and improvements disclosed in the Patent Application in all countries throughout the world.

Assignor – Yukiko KIKUGAWA

November 8, 2019

Date

菊川 結希子

Signature (Yukiko KIKUGAWA)

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Witnessed before me, \_\_\_\_\_ (*printed name of witness*), on this  
\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally appeared Yukiko KIKUGAWA, who  
signed and acknowledged the foregoing Assignment as his or her free act and deed.

\_\_\_\_\_  
Signature (Witness)

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Witnessed before me, \_\_\_\_\_ (*printed name of witness*), on this  
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