

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT6351723

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
TOMOHIRO HARADA	10/06/2020
HIROSHI OONUKE	10/06/2020
KEIICHI HAYASHI	10/06/2020
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	mitsubishi heavy industries environmental & chemical engineering co., ltd.
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<b>City:</b>	YOKOHAMA-SHI, KANAGAWA
<b>State/Country:</b>	JAPAN
<b>Postal Code:</b>	220-0012
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	17047870
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(202)822-1111
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<b>ATTORNEY DOCKET NUMBER:</b>	P200984US00
<b>NAME OF SUBMITTER:</b>	YOLIDIA A. PASOS
<b>SIGNATURE:</b>	/YOLIDIA A. PASOS/
<b>DATE SIGNED:</b>	10/15/2020
This document serves as an Oath/Declaration (37 CFR 1.63).	
<b>Total Attachments: 4</b>	
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# Combined Declaration and Assignment for Utility and Design Patent Applications

## DECLARATION

As a below named inventor, I hereby declare that:

I believe I am the original inventor or an original joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled

Insert Title:

GAS SWIRLING STATE DETERMINATION SYSTEM AND GASIFICATION MELTING FURNACE

the application of which is attached hereto unless the following is checked

was filed on \_\_\_\_\_ as United States Application Number \_\_\_\_\_ and was filed on May 21, 2019 as PCT International Application Number PCT/JP2019/020012 and was amended on \_\_\_\_\_ (if applicable).

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

I hereby acknowledge that any willful false statement made in this declaration is punishable under section 1001 of title 18 by fine or imprisonment of not more than 5 years, or both.

## ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, the adequacy and receipt of which is hereby acknowledged by the undersigned inventor(s) (hereinafter ASSIGNOR) by

Insert Assignee(s)  
Name/Address:

**MITSUBISHI HEAVY INDUSTRIES ENVIRONMENTAL & CHEMICAL ENGINEERING  
CO., LTD.**  
4-2, Minatomirai 4-chome, Nishi-ku, Yokohama-shi, Kanagawa 220-0012 Japan

(hereinafter ASSIGNEE), the undersigned ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE the entire and exclusive right, title and interest to the above-identified application (e.g., provisional or non-provisional) and all Letters Patent of the United States to be obtained therefore on said application or any continuation, divisional, substitute, reissue, reexamination, supplemental examination, inter partes review, post grant review, or other procedures thereof for the full term or terms for which the same may be granted.

The ASSIGNOR agrees to execute all papers necessary in connection with the application and any continuation, divisional, reissue, reexamination, supplemental examination, inter partes review, post grant review, or other procedures thereof and also to execute separate assignments in connection with such applications as the ASSIGNEE may deem necessary or expedient.

The ASSIGNOR agrees to execute all papers necessary in connection with any interference, litigation, or other legal proceeding which may be declared concerning this application or any continuation, divisional, reissue or reexamination, supplemental examination, inter partes review, post grant review, or other procedures thereof or Letters Patent or reissue patent issued thereon and to cooperate with the ASSIGNEE in every way possible in obtaining and producing evidence and proceeding with such interference, litigation, or other legal proceeding.

The ASSIGNOR sells, assigns and transfers to said ASSIGNEE the entire and exclusive right, title and interest to the application(s) and the invention(s) disclosed therein for the United States of America and all countries foreign to the United States and do hereby authorize said ASSIGNEE to apply for patents therefore in its own name in countries where such procedure is proper and to claim the priority right under the International Convention and agrees to execute all papers necessary in connection with applications for such patents and any continuation, divisional, substitute, reissue or reexamination, supplemental examination, inter partes review, post grant review, or other procedures thereof and also execute separate assignments in connection with such applications as the ASSIGNEE may deem necessary or expedient.

Docket No.:

Westerman, Hattori, Daniels & Adrian, LLP

Hereby executed by the undersigned on the date opposite the undersigned name:

Legal Name of inventor ⇨ Tomohiro HARADA Date : October 6, 2020

Inventor's Signature ⇨ Tomohiro Harada

Legal Name of inventor ⇨ \_\_\_\_\_ Date : \_\_\_\_\_

Inventor's Signature ⇨ \_\_\_\_\_

Legal Name of inventor ⇨ Keiichi HAYASHI Date : \_\_\_\_\_

Inventor's Signature ⇨ \_\_\_\_\_

Legal Name of inventor ⇨ \_\_\_\_\_ Date : \_\_\_\_\_

Inventor's Signature ⇨ \_\_\_\_\_

Legal Name of inventor ⇨ \_\_\_\_\_ Date : \_\_\_\_\_

Inventor's Signature ⇨ \_\_\_\_\_

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Docket No.:

Westermann, Hattori, Daniels & Adrian, LLP

Hereby executed by the undersigned on the date opposite the undersigned name:

Legal Name of inventor ⇨ Tomohiro HARADA Date : \_\_\_\_\_

Inventor's Signature ⇨ \_\_\_\_\_

Legal Name of inventor ⇨ Hiroshi OONUKE Date : October 6, 2020

Inventor's Signature ⇨ Hiroshi Onuki

Legal Name of inventor ⇨ Keiichi HAYASHI Date : October 6, 2020

Inventor's Signature ⇨ Keiichi Hayashi

Legal Name of inventor ⇨ \_\_\_\_\_ Date : \_\_\_\_\_

Inventor's Signature ⇨ \_\_\_\_\_

Legal Name of inventor ⇨ \_\_\_\_\_ Date : \_\_\_\_\_

Inventor's Signature ⇨ \_\_\_\_\_