504692028 12/18/2017

# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
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HIDEO TAKIZAWA	07/26/2017
MASAYUKI WATANABE	11/13/2017

### **RECEIVING PARTY DATA**

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State/Country:	JAPAN
Postal Code:	3638510
Name:	NIPPON INSTITUTE OF TECHNOLOGY
Street Address:	4-1, GAKUENDAI, MIYASHIRO-MACHI, MINAMISAITAMA-GUN
City:	SAITAMA
State/Country:	JAPAN
Postal Code:	3458501
Name:	HITACHI METALS, LTD
Street Address:	2-70, KONAN 1-CHOME, MINATO-KU
City:	TOKYO
State/Country:	JAPAN
Postal Code:	1088224

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15507619

### **CORRESPONDENCE DATA**

**Fax Number:** (703)748-0244

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PATENT

504692028 REEL: 044419 FRAME: 0461

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ATTORNEY DOCKET NUMBER: 074531.0010

NAME OF SUBMITTER: F. MICHAEL SAJOVEC

SIGNATURE: /F. Michael Sajovec/

**DATE SIGNED:** 12/18/2017

**Total Attachments: 3** 

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> PATENT REEL: 044419 FRAME: 0462

### DECLARATION AND ASSIGNMENT FOR SINGLE ASSIGNEE

Title of Invention	RING MOLDED ARTICLE MANUFACTURING METHOD AND RING MATERIAL
As the below nar	ned inventor, I hereby declare that:
is directed to:	☐ The attached application, or ☐ United States application No. 15/507,619 or PCT international application number 81 filed on August 27, 2015.

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

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

WHEREAS, HITACHI METALS MMC SUPERALLOY, LTD, Kamihideya, Okegawa-shi, Saitama 3638510 Japan, NIPPON INSTITUTE OF TECHNOLOGY, 4-1, Gakuendai, Miyashiro-machi, Minamisaitama-gun, Saitama 3458501 Japan and HITACHI METALS, LTD., 2-70, Konan 1-chome, Minato-ku, Tokyo 1088224 Japan (hereinafter referred to as "ASSIGNEES") are desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged. I do hereby sell, assign and transfer unto said ASSIGNEES, their successors, assigns and legal representatives, the full and exclusive right to the said invention, including the right to file applications and obtain patents, utility models, industrial models and designs for said invention in its own name throughout the world including all rights of priority, all rights to publish cautionary notices reserving ownership of said invention and all rights to register said invention in appropriate registries in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in any and all divisions, reissues, continuations, substitutions and renewals thereof.

I hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEES as the assignee of my entire right, title and interest in and to the same, for the sole use and benefit of said ASSIGNEES, their successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this Assignment and sale not been made.

Further, I agree that I will communicate to said ASSIGNEES or their representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEES, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEES, their successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

I hereby grant the firm of WILLIAMS MULLEN, PC and its agents the power to insert on this assignment any further identification, including but not limited to application number(s) and filing dates, which may be necessary or desirable in order to comply with any rule or request of the United States Patent and Trademark Office or other country or regional patent office for the purposes of recording this document.

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.

Legal Name of Inventor: Jun OHSONE	
Address: c/o Hitachi Metals MMC Superalloy, Ltd., 1230, Kamihideya,	
Signature: JUN Orsone	Date: <u>Novvennum 13, 2019</u>

# Title of Invention RING MOLDED ARTICLE MANUFACTURING METHOD AND RING MATERIAL As the below named inventor, I hereby declare that: This declaration The attached application, or is directed to: United States application No. 15/507,619 or PCT international application number PCT/JP2015/74181 filed on August 27, 2015. The above-identified application was made or authorized to be made by me.

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

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NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I do hereby sell, assign and transfer unto said ASSIGNEES, their successors, assigns and legal representatives, the full and exclusive right to the said invention, including the right to file applications and obtain patents, utility models, industrial models and designs for said invention in its own name throughout the world including all rights of priority, all rights to publish cautionary notices reserving ownership of said invention and all rights to register said invention in appropriate registries in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant. International Treaties and Arrangements from the aforesaid application) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in any and all divisions, reissues, continuations, substitutions and renewals thereof.

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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.

Legal Name of Inventor: Hideo T	TAKIZAWA	
Address: c/o NIPPON INSTITUTE	E OF TECHNOLOGY, 4-1, Gakuendai, Miyashir	ro-machi, Minamisaitama-gun,
Coitama 2450501 Yanan	f Takizawa	Date: July 26, 2017
		1

## DECLARATION AND ASSIGNMENT FOR SINGLE ASSIGNEE

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	RING MATERIAL
As the below nar	ned inventor, I hereby declare that:
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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.

Legal Name of Inventor: Masayuki WATANABE

Address: c/o Hitachi Metals MMC Superalloy, Ltd., 1230, Kamihideya, Okegawa-shi, Saitama 3638510 Japan

Signature: Marajubi Matanalie Date: November 13, 2017

PATENT REEL: 044419 FRAME: 0465

**RECORDED: 12/18/2017**