### 505810493 12/09/2019

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5857322

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
AKIYOSHI HAYAKAWA	11/19/2019
RYUJI NAGAOKA	11/21/2019
TORU NAGAI	11/21/2019
FUMIO WANI	11/19/2019
TOKUNARI NISHIMURA	11/19/2019

#### **RECEIVING PARTY DATA**

Name:	KAWASAKI JUKOGYO KABUSHIKI KAISHA
Street Address:	1-1, HIGASHIKAWASAKI-CHO 3-CHOME
City:	CHUO-KU, KOBE-SHI, HYOGO
State/Country:	JAPAN
Postal Code:	650-8670

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

Property Type	Number
Application Number:	16686239

#### **CORRESPONDENCE DATA**

Fax Number:

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.

Email: xsensuspat@xsensus.com

Correspondent Name: XSENSUS, LLP

Address Line 1: 200 DAINGERFIELD ROAD

Address Line 2: SUITE 201

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	13399US01CON
NAME OF SUBMITTER:	AIKO MATSUSHITA
SIGNATURE:	/Aiko Matsushita/
DATE SIGNED:	12/09/2019

**Total Attachments: 5** 

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PATENT REEL: 051219 FRAME: 0118

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19-11-28;18:08 ; ; 0783915791 # 2/ 7

### DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

Title of ADAPTIVE OPTICAL APPARATUS, OPTICAL SYSTEM, AND OPTICAL WAVEFRONT COMPENSATION METHOD	
As the below named inventor, I hereby declare that:	
This declaration  The attached application, or	
is directed to: United States application or PCT international application number PCT/JP2018/018991	
filed on May 16, 2018	
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, KAWASAKI JUKOGYO KABUSHIKI KAISHA	
(hereinafter referred to as "ASSIGNEE") having places of business at: 1-1, Higashikawasaki-cho 3-chome, Chuo-ku, Kobe-shi, Hyogo 650-8670, Japan	
is 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, valuable, and adequate consideration, the receipt of which is hereby acknowledged, I, by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention 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 and to 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 ASSIGNEE as the assignee of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its 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 ASSIGNEE or its 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 ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its 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 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	
Inventor: HAYAKAWA, Akiyoshi Date: No. 19. 2019	
Signature: Akiyoshi / Jayakawa	

XSENSUS LLP ATTORNEYS AT LAW 200 DAINGERFIELD ROAD, SUITE 201 Alexandria, VA 22314 19-11-28;18:08 ; ; 0783915791 # 3/ 7

## DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

Title of Invention	ADAPTIVE OPTICAL APPARATUS, OPTICAL SYSTEM, AND OPTICAL WAVEFRONT COMPENSATION METHOD
As the below nar	med inventor, I hereby declare that:
This declaration	☐ The attached application, or
is directed to:	United States application or PCT international application number PCT/JP2018/018991
filed on May 16	6, 2018
The above-identi	ified application was made or authorized to be made by me.
	n the original inventor or an original joint inventor of a claimed invention in the application. AWASAKI JUKOGYO KABUSHIKI KAISHA
(hereinafter refer Chuo-ku, Kobe	red to as "ASSIGNEE") having places of business at: 1-1, Higashikawasaki-cho 3-chome, -shi, Hyogo 650-8670, Japan
is desirous of accomay be granted the	quiring the entire right, title and interest in and to said invention and in and to any Letters Patent that herefore in the United States and its territorial possessions and in any and all foreign countries;
by these presents the United States the terms of the It application) and the United States	EFORE, for good, valuable, and adequate consideration, the receipt of which is hereby acknowledged, I, is do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in a and its territorial possessions and in all foreign countries (including the right to claim priority under international Convention and other relevant International Treaties and Arrangements from the aforesaid the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in and its territorial possessions and in any and all foreign countries and in and to any and all divisions, ations, 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 ASSIGNEE as the assignee of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its 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 ASSIGNEE or its 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 ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its 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 ackno fine or imprisonm	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by nent of not more than five (5) years, or both.
LEGAL NAME (	OF INVENTOR
Inventor: NAGA	AOKA, Ryuji Date: //-٧. 2/, 20(9
Signature: Ryu	iji kagarka

XSENSUS LLP ATTORNEYS AT LAW 200 DAINGERFIELD ROAD, SUITE 201 Alexandria, VA 22314

19-11-28;18:08 ; ; 0783915791 # 4/ 7

# DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

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Title of Invention	ADAPTIVE OPTICAL APPARATUS, OPTICAL SYSTEM, AND OPTICAL WAVEFRONT COMPENSATION METHOD
As the below named inventor, I hereby declare that:	
This declaration	☑ The attached application, or
is directed to:	United States application or PCT international application number PCT/JP2018/018991
filed on May 16	<u>6, 2018</u>
The above-identi	ified application was made or authorized to be made by me.
I believe that I ar WHEREAS, K	m the original inventor or an original joint inventor of a claimed invention in the application. AWASAKI JUKOGYO KABUSHIKI KAISHA
(hereinafter referred to as "ASSIGNEE") having places of business at: 1-1, Higashikawasaki-cho 3-chome, Chuo-ku, Kobe-shi, Hyogo 650-8670, Japan	
is 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, valuable, and adequate consideration, the receipt of which is hereby acknowledged, I, by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention 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 and to 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 ASSIGNEE as the assignee of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its 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 ASSIGNEE or its 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 ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its 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 acknown fine or imprisonme	wledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by ent of not more than five (5) years, or both.
LEGAL NAME O	F INVENTOR
Inventor: NAGA	II, Toru Date: Nov 2/, 2019
Signature:	ru Nagai

XSENSUS LLP ATTORNEYS AT LAW 200 DAINGERFIELD ROAD, SUITE 201 Alexandria, VA 22314 19-11-28;18:08 ; ; 0783915791 # 5/ 7

### DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

Title of Invention	ADAPTIVE OPTICAL APPARATUS, OPTICAL SYSTEM, AND OPTICAL WAVEFRONT COMPENSATION METHOD	
As the below nar	named inventor, I hereby declare that:	
This declaration	on  The attached application, or	
is directed to:	☐ United States application or PCT international application number PCT/JP2018/0189	91
filed on May 10	16, 2018	
The above-identi	ntified application was made or authorized to be made by me.	
	am the original inventor or an original joint inventor of a claimed invention in the application, KAWASAKI JUKOGYO KABUSHIKI KAISHA	
	ferred to as "ASSIGNEE") having places of business at: 1-1, Higashikawasaki-cho 3-chome, be-shi, Hyogo 650-8670, Japan	<u> </u>
is desirous of accomay be granted to	acquiring the entire right, title and interest in and to said invention and in and to any Letters P If therefore in the United States and its territorial possessions and in any and all foreign countries	atent that
by these presents the United States the terms of the It application) and the United States	EREFORE, for good, valuable, and adequate consideration, the receipt of which is hereby acknown at the said assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invites and its territorial possessions and in all foreign countries (including the right to claim prior and its territorial convention and other relevant International Treaties and Arrangements from the different three right, title and interest in and to any and all Letters Patent which may be granted the said its territorial possessions and in any and all foreign countries and in and to any and all countries and in and to any and all countries and in and to any and all countries.	vention in rity under aforesaid herefor in
and all foreign co my entire right, to assigns, to the ful	thorize and request the Patent Office Officials in the United States and its territorial possession countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the as title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its succefull end of the term for which said Letters Patent may be granted, as fully and entirely as the sar by me had this Assignment and sale not been made.	signee of
Further, I agree that I will communicate to said ASSIGNEE or its 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 ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its 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 ackno fine or imprisonm	nowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. nment of not more than five (5) years, or both.	. 1001 by
LEGAL NAME C	E OF INVENTOR	
Inventor: WAN		_
Signature:	Finns Womi	

XSENSUS LLP ATTORNEYS AT LAW 200 DAINGERFIELD ROAD, SUITE 201 Alexandria, VA 22314

19-11-28;18:08 ; ; 0783915791 # 6/ 7

### DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

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filed on May 16	, 2018
The above-identif	ied application was made or authorized to be made by me.
	the original inventor or an original joint inventor of a claimed invention in the application.  AWASAKI JUKOGYO KABUSHIKI KAISHA
	ed to as "ASSIGNEE") having places of business at: 1-1, Higashikawasaki-cho 3-chome, shi, Hyogo 650-8670, Japan
is desirous of acquary be granted the	uiring the entire right, title and interest in and to said invention and in and to any Letters Patent that erefore in the United States and its territorial possessions and in any and all foreign countries;
by these presents of the United States of the terms of the In- application) and the the United States of	FORE, for good, valuable, and adequate consideration, the receipt of which is hereby acknowledged, I, do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in and its territorial possessions and in all foreign countries (including the right to claim priority under ternational Convention and other relevant International Treaties and Arrangements from the aforesaid ne entire right, title and interest in and to any and all Letters Patent which may be granted therefor in and its territorial possessions and in any and all foreign countries and in and to any and all divisions, ions, substitutions and renewals thereof.
and all foreign cou my entire right, tit assigns, to the full	ize and request the Patent Office Officials in the United States and its territorial possessions and any intries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignce of le and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its successors and end of the term for which said Letters Patent may be granted, as fully and entirely as the same would me had this Assignment and sale not been made.
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I hereby acknov fine or imprisonme	vieldge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by ant of not more than five (5) years, or both.
LEGAL NAME O	FINVENTOR
inventor: NISHIN	MURA, Tokunari Date: Rowanson 19, 2019
Signature:	kungri Trishimura

XSENSUS LLP ATTORNEYS AT LAW 200 DAINGERFIELD ROAD, SUITE 201 Alexandria, VA 22314

**RECORDED: 12/09/2019**