#### 505591731 07/26/2019

## PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
Takanori SHIRAKAWA	05/20/2019
Chikashi OHTA	05/20/2019
Ryuta KINOSHITA	05/20/2019

### **RECEIVING PARTY DATA**

Name:	Toyota Jidosha Kabushiki Kaisha	
Street Address:	et Address: 1, Toyota-cho	
City:	Toyota-shi, Aichi-ken	
State/Country:	e/Country: Japan	
Postal Code:	471-8571	

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

Property Type	Number
Application Number:	16416324

### CORRESPONDENCE DATA

Fax Number: (703)836-2787

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: 703-836-6400 Email: email@oliff.com **Correspondent Name:** JAMES A. OLIFF Address Line 1: **OLIFF PLC** 

Address Line 2: P.O. BOX 320850

Address Line 4: ALEXANDRIA, VIRGINIA 22320-4850

ATTORNEY DOCKET NUMBER:	186739	
NAME OF SUBMITTER:	VARSHA RAVICHANDRAN	
SIGNATURE:	/Varsha Ravichandran/	
DATE SIGNED:	07/26/2019	
	This document serves as an Oath/Declaration (37 CFR 1.63).	

**Total Attachments: 2** 

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> **PATENT** REEL: 049871 FRAME: 0449 505591731

# ASSIGNMENT (BEING FILED FOR DUAL PURPOSE UNDER 37 CFR 1.63(e)) For Application with Filing Date on or after September 16, 2012

#### ASSIGNMENT

	Insert	(1)	Takanori SHIRAKAWA	(2)	Chikashi OHTA
(1-8)	Legal Name(s)	(3)	Ryuia KINOSHITA	(4)	
	of Inventor(s)	(5)		(\$)	
		(7)		(8)	
	the un	sideration of the sum of one dollar (\$) dersigned, the receipt and sufficiency , and hereby does assign, transfer and	of which are h	good and valuable consideration paid to each of earthy acknowledged, each undersigned agrees to	
(9)	resigner	(9)	TOYOTA IIDOSHA KABUSHIKI	Kaisha	
(10)		(10)	1. Toyota-che, Toyota-shi, Aichi,		1
(11) Insert Identification such as Title, Case		invent contin	ion, and in all applications for patent i	ncluding any a issue application ranted on the i	
Number, or Foreign Application Number	(Attor	ney Docket No.		led on even date herewith or as	
(12)	Alternative	(12)	U.S. Application Number		
	Identification for		<del>, , , , , , , , , , , , , , , , , , , </del>	*****************	
	filed applications	filed			
to exect	ne soparsie assignments in c	canection	with such applications and patents a	with any app the Assigned	lication and/or patent for the invention and also

- 2) Each undersigned agrees to execute all papers necessary in connection with any interference or post-grant proceeding-which may be declared concerning any application or patent for the invention and to cooperate with the Assigner in every way possible in obtaining evidence and going forward with such interference or post-grant proceeding.
- Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.
- 4) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reexamination a grant of a valid United States patent to the Assigner.
- 5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office to issue any and all patents resulting from said application(s) to the said Assignee, as Assignee of the entire interest, and covenants that he or she has full right to convey the entire interest herein assigned, and that he or she has not executed, and will not execute, any agreement(s) in conflict herewith, and agrees that this assignment is binding on Assignor's heirs, suggested and will not execute, any agreement(s) in conflict herewith, and agrees that
- this assignment is binding on Assignor and Assignor's heirs, successors, assigns and legal representatives.

  5) Each undersigned hereby grants the firm of OLIFF FLC the power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

#### (13) Declaration

As an above named inventor, I hereby declare that:

I believe I am the original inventor or an original joint inventor of a claimed invention (or claimed design) in the above-identified application for which this declaration is being submitted,

The application was made or authorized to be made by me,

I have reviewed and understand the contents of the above-identified application, including the claims, and are aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

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.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date	May 20, 2019	Inventor Signaturo	Takaneri Shirakeun Tekeneri SHIRAKAWA	_ (SEAL)
Date	May 20, 2019	Inventor Signature	Chikashi Ohta	_ (SEAL)
Date	May 20, 2019	Inventor Signature	Ryuta Kinoshita Ryua KINOSHITA	" (SEAL)
Date		Inventor Signature		_ (SEAL)
Date		Inventor Signature	·····	(SEAL)
Date	,	Inventor Signature		(SEAL)
Dete		Inventor Signature		(Seal)
Date		Inventor Signature		(SEAL)
scither,	This assignment should preferably be signed then it should be signed before at least two w	before: (a) a Notary Publ itnesses who also sign ho	is if within the U.S.A. (b) a U.S. Consul if outside there:	e U,S.A. H
Onte	May, 20, 2019	Witness	Maring Hours	
3.4.	Mai 50 - 2019	w. e.	Towaling L. 11	

**RECORDED: 07/26/2019**