

## 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>
TETSUYA FUJINO	06/10/2016
JUNICHIRO ICHIKAWA	06/09/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SUMITOMO OSAKA CEMENT CO., LTD.
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<b>City:</b>	TOKYO
<b>State/Country:</b>	JAPAN
<b>Postal Code:</b>	102-8465
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15171638
<b>CORRESPONDENCE DATA</b>	
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<b>ATTORNEY DOCKET NUMBER:</b>	6596.134039
<b>NAME OF SUBMITTER:</b>	CHRISTOPHER S. HERMANSON
<b>SIGNATURE:</b>	/Christopher S. Hermanson/
<b>DATE SIGNED:</b>	06/12/2019
<b>Total Attachments: 4</b>	
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Assignment of U.S. Patent Rights

ATTORNEY DOCKET NO. SUM14-00479

## PATENT ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby irrevocably acknowledged, each undersigned inventor has irrevocably sold, assigned, transferred, and conveyed, and by these presents hereby irrevocably sells, assigns, transfers and conveys, unto:

**Assignee's Name:** SUMITOMO OSAKA CEMENT CO., LTD.  
a Japan corporation

**Assignee's Address:** 6-28, Rokubancho  
Chiyoda-ku, Tokyo  
102-8465 JAPAN

(hereinafter "ASSIGNEE") the entire right, title and interest in the United States of America, in and to his/her invention(s) relating to:

**Invention Title:** OPTICAL WAVEGUIDE DEVICE

A disclosure of which is set forth in:

United States Patent Application Serial No. 15/171,638, filed on JUNE 2, 2016,

and in and to said Patent Application(s), including the entire right, title and interest in and to any and all applications directly or indirectly claiming priority thereof or therefrom, including any divisions, continuations, and continuations-in-part thereof, in and to any and all patents, patent rights, patent privileges, and patent protections of any kind which may arise from or issue on or from any such application(s) or for said invention(s) disclosed therein, including any and all reissues, re-examinations, renewals, and extensions thereof, and any rights and claims to any legal or equitable relief for infringement thereof, all to be owned, held, and enjoyed by said ASSIGNEE, its successors, legal representatives and assigns, to the full end of the term or terms for which any and all such patents or patent rights may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made.

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SUM14-00478 (temp)

Each of the undersigned hereby authorizes and requests the U.S. Commissioner of Patents and Trademarks to issue all such patents for said invention to ASSIGNEE, its successors or assigns, in accordance with the terms of this Assignment. Each of the undersigned hereby authorizes and requests the Commissioner for Patents for the U.S. Patent and Trademark Office (USPTO) and the appropriate officers of the USPTO and all other patent offices or jurisdictions in which any of the aforesaid patent application(s) or patent(s) are or may be recorded, registered or pending, to record and register this Assignment upon request by ASSIGNEE. Each of the undersigned hereby agrees that, from time to time after the execution of this Assignment by the undersigned, the undersigned shall execute any and all documents, including assignments, transfers and related powers of attorney, and take all other further actions as may be necessary or reasonably requested by ASSIGNEE to effect, record, perfect or enforce the transfers set forth in this Assignment and ensure that all of Assignor's right, title and interest in and to the aforesaid patent application(s) and patent(s) are properly assigned to ASSIGNEE, its successors and assigns in accordance with this Assignment.

Each of the undersigned represents, warrants, covenants, and agrees that he/she has the full and unencumbered right, power, and authority to sell, assign, transfer, and convey the invention(s), patent(s), patent application(s), and related patent interests herein sold, assigned, transferred, and conveyed to ASSIGNEE, and that he/she has not executed and will not execute any document or instrument in conflict herewith.

Each of the undersigned further represents, warrants, covenants, and agrees he/she will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to him/her relating to all of the aforesaid invention(s) or patent application(s), and that he/she will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to or to obtain and enforce patent protection for said invention(s), and for said application(s) including any applications claiming priority directly or indirectly therefrom, any divisions, continuations-in-part, and continuations thereof, and to any and all patents which may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors, or assigns, or to assist said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing patents for said invention(s).

Each of the undersigned hereby grants the firm of Taft Stettinius & Hollister LLP, or any partner thereof, or any registered practitioner associated with U.S. Patent and Trademark Office Customer Number 24240, the power of attorney to insert into this Assignment any further identification that may be necessary or desirable to comply with the rules of the USPTO concerning recordation of this Assignment.

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Inventor's Country of Citizenship: Japan

Yuu Nakata  
Signature of Inventor

10. June. 2016  
Date

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Witness

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Date