PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5656432

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MASAYOSHI NISHIKAWA	05/14/2019
YUJI INOUE	05/14/2019

RECEIVING PARTY DATA

Name:	TOKUYAMA CORPORATION		
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City:	YAMAGUCHI		
State/Country:	JAPAN		
Postal Code:	7458648		

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	16484065	

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	HARAK-37665.251
NAME OF SUBMITTER:	ROBERT A. GOETZ
SIGNATURE:	/Robert A. Goetz/
DATE SIGNED:	08/07/2019

Total Attachments: 1

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PATENT REEL: 049984 FRAME: 0001

PATENT

Attorney Docket No.: HARAK-37665/US-1/PCT

TKY18015/US

ASSIGNMENT

WHEREAS, WE, Masayoshi NISHIKAWA and Yuji INOUE, hereinafter referred to as "ASSIGNOR," have invented certain new and useful improvements as described and set forth in the below-identified application for United States Letters Patent:

Title of Invention: CORE WIRE FOR USE IN SILICON DEPOSITION, METHOD FOR PRODUCING SAID CORE WIRE, AND METHOD FOR PRODUCING POLYCRYSTALLINE SILICON

U.S. Patent Application No. 16/484,065 Filing Date: 06-Aug-2019 International Patent Application No. PCT/JP2018/005048 Filing Date: 14-Feb-2018

WHEREAS, **TOKUYAMA CORPORATION**, 1-1, Mikage-cho, Shunan-shi, Yamaguchi 7458648, JP, hereinafter referred to as "ASSIGNEE," is desirous of acquiring the entire right, title and interest in said invention and application and in any Letters Patent which may be granted on the same; We hereby authorize our Attorney of Record to insert the Application Serial No. and Filing Date in spaces above when known;

NOW THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, receipt of which is hereby acknowledged, ASSIGNORS have sold, assigned and transferred, and by these presents do sell, assign and transfer unto said ASSIGNEE, and ASSIGNEE's successors and assigns, all right, title and interest in and to said invention, said application for United States Letters Patent, and any Letters Patent which may hereafter be granted on the same in the United States and all countries throughout the world, including any divisions, renewals, continuations in whole or in part, substitutions, conversions, reissues, or prolongations or extensions thereof, said interest to be held and enjoyed by said ASSIGNEE as fully and exclusively as it would have been held and enjoyed by said ASSIGNORS had this assignment and transfer not been made, to the full extent and term of any Letters Patent. Authorization is given to our attorneys to insert the U.S. Patent Application No. in the space provided when known.

ASSIGNOR further agrees that ASSIGNOR will, without charge to said ASSIGNEE, but at ASSIGNEE's expense, cooperate with ASSIGNEE in the prosecution of said application and/or applications; execute, verify, acknowledge, and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof; and perform such other acts as ASSIGNEE lawfully may request, to obtain or maintain Letters Patent for said invention and improvement in any and all countries, and to vest title thereto in said ASSIGNEE, or ASSIGNEE's successors and assigns.

IN TESTIMONY WHEREOF, ASSIGNOR has hereunto signed ASSIGNOR's name to this Assignment on the date indicated below.

Masayoshi	Nishikawa.	May 14, 2019.	- 14a)1 1	11048 May 14,2019
Masayoshi NISH		/ Date	Yuji INOUE	Date
STATE OF)			
COUNTY OF)	88.		
the undersigned No proven to me on th	otary Public or Witness	s, personally appeared evidence) to be the pe	I the above-named A	ar of, before me, ASSIGNORS, known to me (or a are subscribed to the within
			NOTARY PUBLIC	or WITNESS
SEAL.			MY COMMISSION	√EXPIRES:

PATENT REEL: 049984 FRAME: 0002

RECORDED: 08/07/2019