506623359 04/22/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6670168

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date	
SHANTANU DEBNATH	04/20/2021	

RECEIVING PARTY DATA

Name:	IONQ, INC.		
Street Address:	4505 CAMPUS DRIVE		
City:	COLLEGE PARK		
State/Country:	MARYLAND		
Postal Code:	20740		
Name:	UNIVERSITY OF MARYLAND		
Street Address:	2130 MITCHELL BLDG.		
Internal Address:	7999 REGENTS DR.		
City:	COLLEGE PARK		
State/Country:	MARYLAND		
Postal Code:	20740		

PROPERTY NUMBERS Total: 2

Property Type	Number	
Application Number:	62701128	
Application Number:	16514099	

CORRESPONDENCE DATA

Fax Number: (213)629-7401

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.

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Email: patentdocket@arentfox.com

Correspondent Name: ARENT FOX LLP- LOS ANGELES

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ATTORNEY DOCKET NUMBER: 038510.00072

NAME OF SUBMITTER: DIANA FIGUEROA

PATENT 506623359 REEL: 056002 FRAME: 0725

SIGNATURE:	/Diana Figueroa/	
DATE SIGNED:	04/22/2021	

Total Attachments: 3

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PATENT REEL: 056002 FRAME: 0726

CONFIRMATORY PATENT ASSIGNMENT (PATENT RIGHTS)

THIS AGREEMENT is between Shantanu DEBNATH, as an individual and resident of College Park, Maryland (hereinafter "ASSIGNOR"), IONQ, INC., having an address at 4505 Campus Drive, College Park, Maryland 20740 (hereinafter "IONQ"), and UNIVERSITY OF MARYLAND, COLLEGE PARK, having an address at Office of Technology Commercialization, 2130 Mitchell Bldg., 7999 Regents Drive, College Park, Maryland 20742 (hereinafter "UMD", and collectively with IONQ referred to as "ASSIGNEES"), and confirms ASSIGNEES' joint ownership and interest in the patent applications identified herein.

WHEREAS, ASSIGNOR is an inventor of the patent applications entitled "Multi-Qubit Control with Acousto-Optic Modulators" that are listed in Schedule A (hereinafter referred to as the "PATENT APPLICATIONS"), and the inventions claimed therein ("INVENTIONS");

WHEREAS, ASSIGNOR executed an Employee Proprietary Information, Inventions, Non-Solicitation and Non-Competition Agreement ("PIIA") on January 24, 2018, in which ASSIGNOR irrevocably assigned, granted and conveyed to IONQ his entire right, title, and interest in and to all inventions that he made or conceived or reduced to practice or learned during his period of employment with IONQ;

WHEREAS, prior to his employment with IONQ, ASSIGNOR was an employee of UMD and was obligated, pursuant to the terms of ASSIGNOR's employment agreement with UMD, to assign all inventions resulting from ASSIGNOR's research and other work conducted in whole or in part on UMD's time or with significant use of UMD's funds or facilities;

WHEREAS, having been employed first by UMD and then IONQ during ASSIGNOR's conception of the INVENTIONS, ASSIGNOR was obligated to jointly assign the INVENTIONS and the PATENT APPLICATIONS to UMD and to IONQ pursuant to his employment agreement with UMD and the PIIA executed with IONQ;

WHEREAS, ASSIGNOR executed an assignment on August 19, 2019, which purported to assign his entire right, title and interest in U.S. Patent Provisional Application No. 62/701,128, filed July 20, 2018, all United States and foreign applications claiming priority thereto, and the INVENTIONS, solely to UMD, of which the assignment is recorded with the USPTO at Reel/Frame 051612/0668;

WHEREAS, ASSIGNEES desire to confirm that ASSIGNEES jointly acquired ASSIGNORS's entire right, title and interest in and to said INVENTIONS and the PATENT APPLICATIONS, including any Letters Patent which may be granted therefor worldwide, including in the United States and its territorial possessions, and in any and all foreign countries, including all PCT applications and national phase filings thereto, and any and all divisions, continuations, substitutions, renewals, re-examination,

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extension and reissues thereof, and any other applications claiming priority to said PATENT APPLICATIONS *nune pro tunc* at least as early as July 20, 2018;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt sufficiency whereof are hereby acknowledged, and for other good and valuable consideration, ASSIGNOR hereby confirms that pursuant to his employment agreement with UMD and the PIIA with IONQ, ASSIGNOR jointly assigned, transferred, conveyed, and delivered to the ASSIGNEES, their successors and assigns, the entire right, title, and interest throughout the world in and to the PATENT APPLICATIONS and the INVENTIONS claimed therein, including any Letters Patent which may be granted therefor worldwide, including in the United States and its territorial possessions, and in any and all foreign countries, including all PCT applications and national phase filings thereto, and any and all divisions, continuations, substitutions, renewals, re-examination, extension and reissues thereof, and any other applications claiming priority to said PATENT APPLICATIONS nunc pro tunc as of July 20, 2018;

ASSIGNOR further agrees that to the extent that any rights, title, and/or interest for the PATENT APPLICATIONS or the INVENTIONS was not jointly transferred, sold or otherwise assigned to ASSIGNEES, ASSIGNOR hereby transfers, sells and assigns all such rights, title, and interest, including all claims for damages and all remedies arising out of or relating to any violation(s) of any of the rights assigned hereby that have or may have accrued prior to the date of assignment, in said PATENT APPLICATIONS and the INVENTIONS, and all U.S. and foreign patent applications claiming priority thereto, including, but not limited to, all divisional applications, renewal applications, continuation applications, continuation-in-part applications, patent of addition applications, confirmation applications, validation applications, utility model applications, and design applications thereof, and all issued patents of which may have granted or may be granted hereafter thereon and all reissues, renewals, reexaminations, and extensions to any of the foregoing and all patents issuing thereon in the United States and in any country or countries foreign to the United States.

ASSIGNOR hereby further agrees to take all actions and execute all documents, as reasonably requested by ASSIGNEES in connection with any interference, litigation, or other legal proceeding which may be declared concerning the PATENT APPLICATIONS or any continuation, division, reissue or re-examination thereof or Letters Patent or reissue patent issued thereon, or any other applications claiming priority thereto, and to cooperate with the ASSIGNEES in every way possible in obtaining and producing evidence and proceeding with such interference, litigation, or other legal proceeding.

IN WITNESS WHEREOF, this *Nunc Pro Tunc* Assignment Agreement is hereby effective as of July 20, 2018.

Shantanu DEBNATH

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Schedule "A"

Country	Application No.	Filing Date	Registration No.	Issue Date	Status
United States	62/701,128	07/20/2018	N/A	N/A	Expired
United States	16/514,099	07/17/2019	N/A	N/A	Pending
PCT	PCT/US19/42414	07/18/2019	N/A	N/A	Published
Japan	2021-502748	07/18/2019	N/A	N/A	Pending
Europe	19749088.1	07/18/2019	N/A	N/A	Pending
China	Not yet assigned	07/18/2019	N/A	N/A	Pending

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RECORDED: 04/22/2021

PATENT

REEL: 056002 FRAME: 0729