

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5385362

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
VANDIVER CHAPLIN	02/19/2019
YUNSEONG NAM	02/18/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	IONQ, INC.
<b>Street Address:</b>	4505 CAMPUS DRIVE
<b>City:</b>	COLLEGE PARK
<b>State/Country:</b>	MARYLAND
<b>Postal Code:</b>	20740
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16281241
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(703)684-1460
<i>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.</i>	
<b>Phone:</b>	703-684-1470
<b>Email:</b>	jclyne@brundidge-stanger.com
<b>Correspondent Name:</b>	BRUNDIDGE & STANGER, P.C.
<b>Address Line 1:</b>	1925 BALLENGER AVENUE, STE. 560
<b>Address Line 4:</b>	ALEXANDRIA, VIRGINIA 22314
<b>ATTORNEY DOCKET NUMBER:</b>	4496.102BS
<b>NAME OF SUBMITTER:</b>	CARL I. BRUNDIDGE
<b>SIGNATURE:</b>	/CARL I. BRUNDIDGE/
<b>DATE SIGNED:</b>	02/21/2019
<b>Total Attachments: 2</b>	
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**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE**

<b>Title of Invention</b>	<b>QUANTUM CIRCUIT OPTIMIZATION</b>
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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 \_\_\_\_\_  
 filed on \_\_\_\_\_

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, IonQ, Inc. (hereinafter referred to as "ASSIGNEE") located at: 4505 Campus Drive College Park, MD 20740 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, I do hereby assign unto said ASSIGNEE, its successors and assigns, 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, reexaminations or reissues, continuations or continuations-in-part, 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, its successors and assigns, as the assignee of my entire right, title and interest in and to the same, for the sole use and behalf 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.

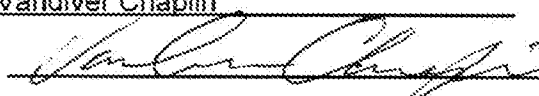
Further, I agree that I will communicate to said ASSIGNEE or its representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation or continuation-in-part, substitute, renewal, and reexamination or reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, its successors and assigns, 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.

Further, I hereby authorize the Law Firm of Brundidge & Stanger, P.C. to insert on this assignment any further identification which may be necessary or desirable by Patent Office Officials in the United States and its territorial possessions and any and all foreign countries in order to comply with the rules of said Patent Office Officials for recordation of this document.

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: Vandiver Chaplin Date: 2-19-2019

Signature: 

**BRUNDIDGE & STANGER, P.C.**  
 1925 BALLENGER AVENUE, SUITE 560  
 ALEXANDRIA, VIRGINIA 22314

**PATENT**  
**REEL: 048392 FRAME: 0757**

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NOW, THEREFORE, I do hereby assign unto said ASSIGNEE, its successors and assigns, 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, reexaminations or reissues, continuations or continuations-in-part, substitutions, and renewals thereof.

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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: Yunseong Nam

Date: Feb. 18<sup>th</sup>, 2019

Signature: \_\_\_\_\_

**BRUNDIDGE & STANGER, P.C.**  
 1925 BALLENGER AVENUE, SUITE 560  
 ALEXANDRIA, VIRGINIA 22314

**PATENT**