PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Phillip A. Sprangle	05/03/2011
Steven H. Gold	05/03/2011
Antonio C. Ting	05/03/2011
Joseph R. Penano	05/16/2011
Daniel F. Gordon	05/04/2011
Bahman Hafizi	05/03/2011

RECEIVING PARTY DATA

Name:	The Government of the United States of America, as represented by the Secretary of the Navy
Street Address:	4555 Overlook Ave, SW
City:	Washington
State/Country:	DISTRICT OF COLUMBIA
Postal Code:	20375

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13109131

CORRESPONDENCE DATA

501533308

(202)404-7380 Fax Number:

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 202-767-3427

Email: joslyn.barritt@nrl.navy.mil

NAVAL RESEARCH LABORATORY ASSOCIATE COUN Correspondent Name:

CODE 1008.2 Address Line 1:

Address Line 2: 4555 OVERLOOK AVENUE, S.W.

Address Line 4: WASHINGTON, DISTRICT OF COLUMBIA 20375-5320

ATTORNEY DOCKET NUMBER: 100369-US2

PATENT

REEL: 026289 FRAME: 0524

NAME OF SUBMITTER:	Joslyn Barritt	
Total Attachments: 8		
source=100_369_Assignments_all#page1.ti		
source=100_369_Assignments_all#page2.ti		
source=100_369_Assignments_all#page3.tif		
source=100_369_Assignments_all#page4.tif		
source=100_369_Assignments_all#page5.tif		
source=100_369_Assignments_all#page6.tif source=100_369_Assignments_all#page7.tif		
source=100_369_Assignments_all#page7.ti		

ASSIGNMENT BY INVENTORS (UNITED STATES PATENTS)

THIS ASSIGNMENT, made by Phillip A. Sprangle; Steven H. Gold; Antonio C.

Ting; Joseph R. Penano; and Daniel F. Gordon (hereinafter referred to as Assignors), residing

at 9619 Tackroom Lane, Great Falls, Virginia 22066; 6203 Westbrook Drive, New Carrollton,

Maryland 20784; 14625 Jaystone Drive, Silver Spring, Maryland 20905; 9834 South Park

Circle, Fairfax Station, Virginia 22039; and 2701 Pinewood Drive, Waldorf, Maryland 20601,

respectively;

WHEREAS, Assignors, while employed by the Government of the United States, have

invented certain new and useful improvements in

High Average Current, High Quality Pulsed Electron Injector

set forth in an application for Letters Patent of the United States, filed herewith; and

WHEREAS, The Government of the United States of America, as represented by the

Secretary of the Navy, a Federal Agency (hereinafter referred to as the Government), is

desirous of acquiring the entire right, title and interest in and to said inventions and said

Application for Letters Patent of the United States, and in and to any Letters Patent of the

United States to be obtained therefore and thereon.

WHEREAS, by acquiring the Assignors' entire right, title, and interest in and to the

invention the Government will be enabled to license the invention and share the income from

the licensing with the Assignors as allowed by law;

WHEREAS, the conditions under which the invention was made are such as to entitle

the Government under Paragraph 1(a) of Executive Order 10096, to the Assignors' entire right,

title, and interest therein, including the foreign rights; and

WHEREAS, as to foreign rights, it is the policy of the Government to obtain an option

to exercise such rights;

Page 1 of 4

100369-US2

REEL: 026289 FRAME: 0527

PATENT

Page 2 of 4

NOW, THEREFORE, in consideration of the premises and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have assigned, transferred and set over, and by these presents do assign, transfer and set over, unto the Government, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all Letters Patent in the United States which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, the same to be held and enjoyed by the Government, for its own use and benefit and the term or terms for which successors, legal representatives and assigns, to the full end of the term or terms for which betters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this assignment not been made.

AND for the same consideration, Assignors hereby represent and warrant to the Government, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to the Government, Assignors are the sole and lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, Assignors hereby covenant and agree to and with the Government, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to the Government, its successors, legal representatives and assigns, whenever counsel of the Government, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with sind inventions, or said Patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent, or any proceeding in connection with limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

7SU-695001

AND Assignors hereby request the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of the Government, its successors, legal representatives and assigns.

AND the Assignors do hereby also grant unto the Government, the option to take the Assignors' entire right, title, and interest in the invention and all patent applications or other forms of protection thereon in all countries foreign to the United States in which the Government may file, or cause to be filed, applications for Letters Patent or other forms of protection, without payment of any consideration; provided, however, that this grant of an option to take foreign rights in the invention, or applications or other forms of protection thereon, shall have force and effect only as to such applications for which a decision to file in foreign countries is made within eight months of the filing date of any application for United States Letters Patent and/or any provisional application covering the invention, or within eight months from the declassification of the invention, whichever is later, and that all foreign rights not exercised under the option are left to Assignors subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent or other form of protection which may issue on said invention in any foreign country, including the power to issue sub-licenses for use in behalf of the Government and/or in furtherance of the foreign policies of the Government.

AND the Assignors hereby further agree to make, execute, and deliver to the Government, any and all papers, documents, affidavits, statements, or other instruments that may be necessary in the prosecution of the application and of any continuation, division, or substitution of the application, or any application for reissue or extension of said Letters Patent, and to assist the Government in every way in protecting the invention as may be requested, provided that any expense arising through such efforts will be paid by the Government.

AND Assignors hereby appoint all practitioners at Customer Number 26384, all of US Naval Research Laboratory, 4555 Overlook Ave, SW, Washington, DC 20375, jointly, and each of them severally, my attorneys at law/patent agent(s), with full power of substitution, delegation and revocation, to prosecute this application, to make alterations and amendments therein, and to transact all business in the U. S. Patent and Trademark Office connected therewith.

Page 3 of 4 100369-US2

AND Assignors hereby grant the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office any foreign patent office for recordation of this document:

US NAVAL RESEARCH LABORATORY

All practitioners at Customer Number 26384.

Date: 5/3/2011	Signature: Phillip A. Sprangle
Date: 5/3/2011	Signature: Steven H. Gold
Date: 5/3/2011	Signature: Julinia Cinj Antonio C. Ting
Date: 5/46/2011	Signature: Joseph R. Penano
Date: 5/4/2011	Signature: Panylu

Daniel F. Gordon

Page 4 of 4

100369-US2

ASSIGNMENT BY INVENTOR

THIS ASSIGNMENT, made by Bahman Hafizi (hereinafter referred to as Assignor),

residing at 7113 Exfair Road, Bethesda, Maryland 20814;

WHEREAS, Assignor, has invented certain new and useful improvements in

High Average Current, High Quality Pulsed Electron Injector

set forth in an application for Letters Patent of the United States, filed herewith; and

WHEREAS, The Government of the United States of America, as represented by the

Secretary of the Navy, a Federal Agency (hereinafter referred to as the Government), is

desirous of acquiring the entire right, title and interest in and to said inventions and said

Application for Letters Patent of the United States, and in and to any Letters Patent of the

United States to be obtained therefore and thereon.

WHEREAS, by acquiring the Assignors' entire right, title, and interest in and to the

invention the Government will be enabled to license the invention and share the income from

the licensing with the Assignors as allowed by law;

WHEREAS, Assignor is obligated as employee of Icarus Research, Inc. (Contractor) to

assign inventions to Contractor, and Contractor is obligated to the Government under contract

no. N00173-07-C-2008;

NOW, THEREFORE, in consideration of the premises and other good and sufficient

consideration, the receipt of which is hereby acknowledged, Assignor has assigned, transferred

and set over, and by these presents does assign, transfer and set over, unto the Government, its

successors, legal representatives and assigns, subject to a nonexclusive and royalty-free license

which is hereby reserved to Contractor, the entire right, title and interest in and to the above-

mentioned inventions and application for Letters Patent, and in and to any and all direct and

indirect divisions, continuations and continuations-in-part of said application, and any and all

Letters Patent in the United States which may be granted therefore and thereon, and reissues,

reexaminations and extensions of said Letters Patent, and all rights under the International

Convention for the Protection of Industrial Property, the same to be held and enjoyed by the

Page 1 of 4

100369-US2

Government, for its own use and benefit and the use and benefit of its successors, legal

representatives and assigns, to the full end of the term or terms for which Letters Patent may be

granted and/or extended, as fully and entirely as the same would have been held and enjoyed by

Assignor, had this assignment not been made.

AND the license reserved to the Contractor shall extend to all existing and future

associated and affiliated companies, if any within the corporate structure of Contractor is a part

and shall be assignable to the successor of that part of Contractor's business to which such

invention pertains.

AND for the same consideration, Assignor hereby represents and warrants to the

Government, its successors, legal representatives and assigns, that, at the time of execution and

delivery of these presents, except for any rights, titles and/or interests that have arisen to the

Government under law or that have already been transferred to the Government, Assignor is the

sole and lawful owner of the entire right, title and interest in and to the said inventions and

application for Letters Patent above-mentioned, and that the same are unencumbered and that

Assignor has good and full right and lawful authority to sell and convey the same in the manner

herein set forth.

AND for the same consideration, Assignor hereby covenants and agrees to and with the

Government, its successors, legal representatives and assigns, that Assignor will sign all papers

and documents, take all lawful oaths and do all acts necessary or required to be done for the

procurement, maintenance, enforcement and defense of any Letters Patent and applications for

Letters Patent for said inventions, without charge to the Government, its successors, legal

representatives and assigns, whenever counsel of the Government, or counsel of its successors,

legal representatives and assigns, shall advise: that any proceeding in connection with said

inventions, or said Patent application for Letters Patent, or any proceeding in connection with

any Letters Patent or applications for Letters Patent for said inventions including but not

limited to interference proceedings, is lawful and desirable; or, that any division, continuation

or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or

extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignor hereby requests the Commissioner of Patent and Trademarks to issue

said Letters Patent of the United States to Assignee, as Assignee of said inventions and the

Page 2 of 4 100369-US2

PATENT

REEL: 026289 FRAME: 0531

Letters Patent to be issued thereon, for the sole use and benefit of the Government, its successors, legal representatives and assigns.

AND the Assignor hereby further agree to make, execute, and deliver to the

Government, any and all papers, documents, affidavits, statements, or other instruments that

may be necessary in the prosecution of the application and of any continuation, division, or

substitution of the application, or any application for reissue or extension of said Letters Patent,

and to assist the Government in every way in protecting the invention as may be requested.

provided that any expense arising through such efforts will be paid by the Government.

AND Assignor hereby appoints all practitioners at Customer Number 26384, all of US

Naval Research Laboratory, 4555 Overlook Ave, SW, Washington, DC 20375, jointly, and

each of them severally, my attorneys at law/patent agent(s), with full power of substitution.

delegation and revocation, to prosecute this application, to make alterations and amendments

therein, and to transact all business in the U.S. Patent and Trademark Office connected

therewith.

AND Assignor hereby grants the following individuals the power to insert on this

Assignment any further identification which may be necessary or desirable in order to comply

with the rules of the United States Patent and Trademark Office any foreign patent office for

recordation of this document:

US NAVAL RESEARCH LABORATORY

All practitioners at Customer Number 26384.

Date: 3 May 2011

Signature:

Seal

Contractor joins in and agrees to the foregoing assignment, and except for the above

reservation of a license, relinquishes and assigns all right, title and interest in and to such

invention, and further agrees to furnish to the Government, upon request, any available

information and documents necessary for the prosecution of any patent application (including

prosecution and settlement of interferences) on the above-identified invention, and any

Page 3 of 4

100369-US2

substitution, division, continuation-in-part, or continuation of such patent application and any application for reissue of any patent resulting from such patent application.

Icarus Research, Inc.

3 May 2011

Date

Authorized Signer:

Title: President

Page 4 of 4

RECORDED: 05/17/2011

100369-US2