504733783 01/17/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
RANDAL KNIZE	01/16/2018
BORIS ZHDANOV	01/16/2017
MATTHEW D ROTONDARO	01/16/2018

RECEIVING PARTY DATA

Name:	Government of the United States as Represented by the Secretary of the Air Force	
Street Address:	2240 B. Street	
Internal Address:	Building 11, Area B	
City:	Wright-Patterson AFB	
State/Country:	OHIO	
Postal Code:	45433-7109	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15873612

CORRESPONDENCE DATA

Fax Number: (937)255-3733

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.

Email: pamela.kuns@us.af.mil

Correspondent Name: PAMELA KUNS
Address Line 1: 2240 B. STREET
Address Line 2: BUILDING 11, AREA B

Addiess line 2.

Address Line 4: WRIGHT-PATTERSON AFB, OHIO 45433-7109

ATTORNEY DOCKET NUMBER:	AFD-1675
NAME OF SUBMITTER:	JASON SOPKO
SIGNATURE:	/Jason Sopko/
DATE SIGNED:	01/17/2018

Total Attachments: 3

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PATENT 504733783 REEL: 044643 FRAME: 0645

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PATENT REEL: 044643 FRAME: 0646

ASSIGNMENT (Government Inventor)

WHERI	EAS, I, RANDAL J. KNIZE, while	employed by the Government of the United States, made or contributed to
an invention de	escribed in invention disclosi	ure AFD-1675 entitled "THERMAL CONFINEMENT OF ALKALI METAL FOR
ALKALI LASER :	SYSTEMS," to be filed as an a	application for Letters Patent of the United States (Application Serial Number
15873612	, filed <u>17 Jan 18</u>), and I hereby authorize and request Air Force Patent Counsel to insert
here in the abo	ive parentheses (Application	Serial Number, filed) the filing date and application number of said
application wh	en known; and	

WHEREAS, the conditions under which said invention was made are such as to entitle the Government of the United States as represented by the Secretary of the Air Force, under Paragraph 1(a) of Executive Order 10096, to the entire right, title and interest therein, including foreign rights;

NOW, THEREFORE, to all whom it may concern, be it known that for and in consideration of the premises and other valuable considerations, I, RANDAL J. KNIZE:

HEREBY HAVE SOLD, ASSIGNED, AND TRANSFERRED, and by these presents do sell, assign, and transfer unto the Government of the United States as represented by the Secretary of the Air Force, my entire right, title, and interest, in and to the aforesaid invention described in the invention disclosure, all subsequent information to support that aforesaid invention, and the resulting application for Letters Patent of the United States including all Letters Patent issuing thereon, and any continuations, continuations-in-part, divisions, and reissues or extensions thereof; and all priority resulting from the filing of the aforesaid application for patent in the United States;

HEREBY AUTHORIZE AND REQUEST any official whose duty it is to issue patents, to issue any patent thereon to the Government of the United States, as represented by the Secretary of the Air Force, and his successors, as assignee of my entire right, title and interest in and to the same, for the sole use for the full term or terms for which said patents and any continuations, continuations-in-part, divisions and reissues or extensions thereof are, or may be, granted as fully and entirely as the same would have been held by me had this Assignment not been made;

HEREBY ALSO GRANT to the Government of the United States, as represented by the Secretary of the Air Force. the option to take the entire right, title and interest in the invention or all applications for Letters Patent thereon in all countries or jurisdictions foreign to the United States in which the Government of the United States may file, or cause to be filed, applications for Letters Patent, without payment to me of any further consideration; provided, however, that this grant of an option to take foreign rights in the invention must be exercised by written notice to me within eight months of the first filing date of any application for United States Letters Patent 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 me, subject to a nonexclusive, irrevocable, royalty-free license to the Government of the United States in any patent which may issue on said invention in any country or jurisdiction foreign to the United States, including the power to issue sublicenses for use on behalf of the Government of the United States and/or in furtherance of the foreign policies of the United States of America; and

HEREBY AGREE to execute any and all applications for Letters Patent, and to furnish all data and documents and to execute any papers which may be necessary or convenient for the preparation, filing, or prosecution of such applications, except it is understood that I shall not be subject to any out-of-pocket expense relative to such action.

SUBSCRIBED AND ACKNOWLEDGED before me by RANDAL J. KNIZE this

2018, at the city of _(

and State of _

in the County of

CAROL E VILCEK NOTARY PUBLIC STATE OF COLORADO NOTARY ID # 20004003761 ay commission expires ferruary 08, 2020

PATENT REEL: 044643 FRAME: 0647

ASSIGNMENT (Independent Contractor Inventor)

WHEREAS, I, Boris Zhdanov, jointly made or contributed to an invention while working as an indecontractor for Laser and Optics Research Center, under Contract Number FA7000-17-2-0002, as described disclosure AFD-1675 entitled "THERMAL CONFINEMENT OF ALKALI METAL FOR ALKALI LASER SYSTEMS," an application for Letters Patent of the United States (Application Serial Number 15873612, file	in invention to be filed as
17 Jan 18), and I hereby authorize and request Air Force Patent Counsel to insert here in the a	
parentheses (Application Serial Number, filed) the filing date and application number of said application w	/hen known;
and	_ A • & _
WHEREAS, I, Borns Zhdanov, have indicated my intention to NOT elect title and NOT file an application of the second linear land.	ation for
Letters Patent on the aforesaid invention;	
NOW, THEREFORE, to all whom it may concern, be it known that, by agreement and in considerations and attention to the second and the second articles.	ion or these
premises and other valuable consideration, I, BORIS ZHDANOV, elect herein to:	mnofas unta
HEREBY HAVE SOLD, ASSIGNED, AND TRANSFERRED, and by these presents do sell, assign, and tra the Government of the United States as represented by the Secretary of the Air Force, my entire right, title	
in and to the aforesaid invention described in the invention disclosure, all subsequent information to supp	
aforesaid invention, and the resulting application for Letters Patent of the United States including all Lette	
issuing thereon, and any continuations, continuations-in-part, divisions, and reissues or extensions thereof	
patent applications claiming priority resulting from the filing of the aforesaid application for patent in the	
in any jurisdiction throughout the world;	willow stocks
HEREBY AUTHORIZE AND REQUEST any official whose duty it is to issue patents, to issue any pate	nt thereon to
the Government of the United States, as represented by the Secretary of the Air Force, and his successors,	
my entire right, title and interest in and to the same, for the sole use for the full term or terms for which same	
and any continuations, continuations-in-part, divisions and reissues or extensions thereof are, or may be, p	
fully and entirely as the same would have been held by me had this Assignment not been made; and	ω·
HEREBY AGREE to execute, and assist with executing, any and all applications for Letters Patent, a	nd to furnish
all data and documents and to execute any papers which may be necessary or convenient for the preparat	
prosecution of such applications, except it is understood I shall not be subject to any out-of-pocket expens	
such action.	
Q 2/2 /2	
8.21dana	
BORIS ZHDANOV	
, wife	
SUBSCRIBED AND ACKNOWLEDGED before me by Boris Zhdanov this day of	
January 2018, at the city of Colora to Springs in the County of	f
46-ElPase and State of Colorado .	'
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CAROL E VILCEK	
NOTARY PUBLIC	
STATE OF COLORADO NOTARY ID # 20004003781 Notary Public	Service State of the Service of the
MY COMMISSION EXPIRES FEBRUARY 86, 2020	

PATENT **REEL: 044643 FRAME: 0648**

ASSIGNMENT (Independent Contractor Inventor)

WHEREAS, I, MATTHEW D. ROTONDARO, jointly made or contributed to an invention while working as an independent contractor for Laser and Optics Research Center, under Contract Number FA7000-17-2-0003, as described in invention disclosure AFD-1675 entitled "THERMAL CONFINEMENT OF ALKALI METAL FOR ALKALI LASER SYSTEMS," to be filed as an application for Letters Patent of the United States (Application Serial Number 15873612 filed 17 Jan 18), and I hereby authorize and request Air Force Patent Counsel to insert here in the above parentheses (Application Serial Number, filed) the filing date and application number of said application when known;
and WHEREAS, I, MATTHEW D. ROTONDARO, have indicated my intention to NOT elect title and NOT file an
application for Letters Patent on the aforesaid invention;
NOW, THEREFORE, to all whom it may concern, be it known that, by agreement and in consideration of these
premises and other valuable consideration, I, MATTHEW D. ROTONDARO, elect herein to:
HEREBY HAVE SOLD, ASSIGNED, AND TRANSFERRED, and by these presents do sell, assign, and transfer unto
the Government of the United States as represented by the Secretary of the Air Force, my entire right, title, and interest, in and to the aforesaid invention described in the invention disclosure, all subsequent information to support that
aforesaid invention, and the resulting application for Letters Patent of the United States including all Letters Patent
ssuing thereon, and any continuations, continuations-in-part, divisions, and reissues or extensions thereof; and all
patent applications claiming priority resulting from the filing of the aforesaid application for patent in the United States
n any jurisdiction throughout the world; HEREBY AUTHORIZE AND REQUEST any official whose duty it is to issue patents, to issue any patent thereon to
the Government of the United States, as represented by the Secretary of the Air Force, and his successors, as assignee of
my entire right, title and interest in and to the same, for the sole use for the full term or terms for which said patents
and any continuations, continuations-in-part, divisions and reissues or extensions thereof are, or may be, granted as
fully and entirely as the same would have been held by me had this Assignment not been made; and
HEREBY AGREE to execute, and assist with executing, any and all applications for Letters Patent, and to furnish all data and documents and to execute any papers which may be necessary or convenient for the preparation, filing, or
prosecution of such applications, except it is understood I shall not be subject to any out-of-pocket expense relative to
such action.
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MATTHEW D. ROTONDARO
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SUBSCRIBED AND ACKNOWLEDGED before me by MATTHEW D. ROTONDARO this day of
January 2018, at the city of Jarado Sacinos in the County of
El Passy and State of Colorado . S
CAROLE VILCEK NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID # 20004003761 MY COMMISSION EXPIRES FEBRUARY 08, 2020

PATENT

REEL: 044643 FRAME: 0649 RECORDED: 01/17/2018