

09-26-2000



Atty. Docket No.: 3531-102P

Page 1 of 2

101470517

## REGISTRATION FORM COVER SHEET

To the Honorable Commissioner of Patents and Trademarks:  
Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Paul R. Berger

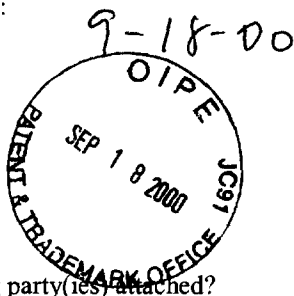
Phillip E. Thompson

Roger Lake

Karl Hobart

Sean L. Rommel

Additional name(s) of conveying party(ies) attached?

☐ YES ☒ NO

## 2. Name and address of receiving party(ies)

Name: University of Delaware

Internal Address:

Street Address:

City: Newark

State: DE

ZIP: 19711

Country: USA

Postal Code:

Additional name(s) & address(es) attached? ☒ YES ☐ NO

## 3. Nature of conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ Other:

Date: August 15, 2000, July 19, 200 and July 24, 2000

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No(s).

09/565,455

B. Patent No.(s).

Additional numbers attached? ☐ YES ☒ NO

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: BIRCH, STEWART, KOLASCH &amp; BIRCH, LLP

Street Address: P.O. BOX 747

City: FALLS CHURCH State: VA ZIP: 22040-0747

Country: USA

## 6. Total No. of applications/patents involved: One (1)

7. Total fee (37 C.F.R. § 3.41): \$80.00

☒ Enclosed☒ Authorized to be charged to deposit account, if no fee attached.

8. Deposit account number: 02-2448

(Attach triplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

John A. Castellano, #35,094  
Name of Person Signing/Reg. No.

Signature

September 18, 2000

Date

Total number of pages including cover sheet, attachments, and document: Six (6)

09/26/2000 DNGUYEN 00000047 09465455

01 FC:581

80.00 DP

(Rev. 04/19/2000)

PATENT  
REEL: 011096 FRAME: 0463

Attachment to  
RECORDATION FORM COVER SHEET

Continuation of Box 1--Name of conveying party(ies):

**Phillip Thompson**  
**Karl Hobart**

Continuation of Box 2--Name and address of receiving party(ies):

**U.S. Government**

Continuation of Box 4--Application number(s) or patent number(s):

**09/565,455**

**BIRCH, STEWART, KOLASCH & BIRCH, LLP**UNITED STATES PATENT RIGHTS, OR  
UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS**ASSIGNMENT**Application No. 09/565,455Filed May 5, 2000**Insert Name(s)  
of Inventor(s)**WHEREAS, Paul R. BergerPhillip E. ThompsonRoger LakeKarl HobartSean L. Rommel

(hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in

**Insert Title  
of Invention**SI-BASED RESONANT INTERBAND TUNNELING DIODES AND METHOD OF MAKING INTERBAND  
TUNNELING DIODES

for which an application for Letters Patent of the United States of America has been executed by the undersigned (except in the case of a provisional application).

**Insert Date  
of Signing of  
Application**on 8/15/00, 7/19/00, 7/24/00; and**Insert Name  
of Assignee**WHEREAS, University of Delaware**Insert Address  
of Assignee**of Newark, DE 19711

its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and

**CHECK BOX  
IF APPROPRIATE**☐ in any foreign countries.

NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the undersigned has (have) sold, assigned and transferred, and by these presents does sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries;

and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree (s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

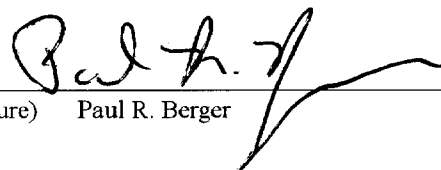
The undersigned hereby authorize(s) and request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of Birch, Stewart, Kolasch & Birch, LLP 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 U.S. Patent and Trademark Office for recordation of this document.

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date 8/15/00,

Name of Inventor   
(signature) Paul R. Berger

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature)

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature)

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature) Phillip E. Thompson

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature)

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature)

Date 7/19/00,

Name of Inventor Roger Lake  
(signature) Roger Lake

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature)

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature)

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature) Karl Hobart

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature)

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature)

Date 7/24/00,

Name of Inventor Sean L. Rommel  
(signature) Sean L. Rommel

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature)

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature)

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature)

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature)

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature)

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature)

Date \_\_\_\_\_,

Name of Inventor \_\_\_\_\_  
(signature)

## ASSIGNMENT

WHEREAS, We, Phillip Thompson and Karl Hobart, of Springfield, VA and Upper Marlboro, MD, while employed by the Government of the United States, have invented certain new and useful improvements in SI-BASED RESONANT INTERBAND TUNNELING DIODES AND METHOD OF MAKING INTERBAND TUNNELING DIODES, identified as Navy Case No. 79,496 and described in application for Letters Patent of the United States of America executed by us on May 5, 2000; and

WHEREAS, the Government of the United States, represented by the Secretary of the Navy and hereinafter referred to as the Government, is desirous of acquiring an assignment of the invention disclosed in said application and other rights and benefits herein granted; and

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 entire right, title and interest therein, including foreign rights; and

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

NOW, THEREFORE, in consideration of the premises and other good and valuable consideration the receipt of which is hereby acknowledged, We hereby assign and transfer to the Government the entire right, title and interest in and to said invention within the United States of America, its territories and possessions, and the entire right, title and interest in and to said application and any continuation, division, or substitution thereof, and such Letters Patent as may issue therefrom and any reissue or extensions thereof, said invention, application and Letters Patent to be held by the Government to the end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by us had this assignment not been made.

We do hereby also grant unto the Government, the option to take the 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 filed in foreign countries within eight months of the 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 us 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.

We 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.

IN TESTIMONY WHEREOF, We have set our hands and affixed our seals.

Date: 7-6-00

Phillip E. Thompson  
Phillip Thompson

Seal

Date: 7-6-00

Karl Hobart  
Karl Hobart

Seal