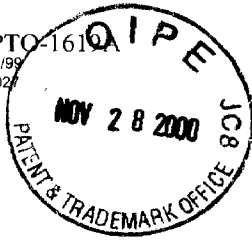


12-20-2000



101557066

FORM PTO-161A
Expires 06/30/99
OMB 0651-0027



U.S. Department of Commerce
Patent and Trademark Office
PATENT

RECORDATION FORM COVER SHEET PATENTS ONLY

TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

Submission Type 11-38-00

☒ New

☐ Resubmission (Non-Recordation)

Document ID#

☐ Correction of PTO Error

Reel # Frame #

☐ Corrective Document

Reel # Frame #

Conveyance Type

☒ Assignment ☐ Security Agreement

☐ License ☐ Change of Name

☐ Merger

☐ Other

U.S. Government

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☐ Departmental File

☐ Secret File

Conveying Party(ies)

☒ Mark if additional names of conveying parties attached

Name (line 1) Schulman, Joel

Execution Date

Month Day Year
07/26/200

Name (line 2)

Second Party

Name (line 1) Chow, David

Execution Date
Month Day Year

06/26/200

Name (line 2)

Receiving Party

☐ Mark if additional names of receiving parties attached

Name (line 1) HRL Laboratories, LLC

Name (line 2) a limited liability company of Delaware

Address (line 1) 3011 Malibu Canyon Road

Address (line 2)

Address (line 3) Malibu

California

90265-4799

City

State/Country

Zip Code

☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

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Mail documents to be recorded with required cover sheet(s) information to:
Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

PATENT
REEL: 011340 FRAME: 0743

Correspondent Name and Address

Area Code and Telephone Number (310) 589-8158

Name Cary Tope-McKay

Address (line 1) 23852 Pacific Coast Highway #311

Address (line 2) Malibu, CA 90265

Address (line 3)

Address (line 4)

Pages

Enter the total number of pages of the attached conveyance document including any attachments.

4

Application Number(s) or Patent Number(s)

☐ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

09/427196

Patent Number(s)

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

Month Day Year

Patent Cooperation Treaty (PCT)

Enter PCT application number

only if a U.S. Application Number has not been assigned.

PCT

PCT

PCT

PCT

PCT

PCT

Number of Properties

Enter the total number of properties involved.

1

Fee Amount

Fee Amount for Properties Listed (37 CFR 3.41): \$ 40.00

Method of Payment:

Enclosed ☒

Deposit Account ☐

Deposit Account

(Enter for payment by deposit account or if additional fees can be charged to the account.)

Deposit Account Number:

#

Authorization to charge additional fees:

Yes ☐

No ☐

Statement and Signature

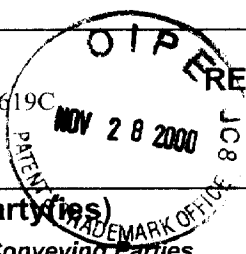
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.

Cary Tope-McKay

Name of Person Signing

Signature

Date



RECORDATION FORM COVER SHEET
CONTINUATION
PATENTS ONLY

U.S. Department of Commerce
Patent and Trademark Office
PATENT

Conveying Party(ies)

☐ Mark if additional names of conveying parties attached

Enter additional Conveying Parties

Name (line 1) Xie, Yi-Ming

Execution Date
Month Day Year

10/03/2000

Name (line 2)

Execution Date
Month Day Year

Name (line 1)

Name (line 2)

Execution Date
Month Day Year

Name (line 1)

Name (line 2)

Receiving Party(ies)

☐ Mark if additional names of receiving parties attached

Enter additional Receiving Party(ies)

Name (line 1)

☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

Name (line 1)

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Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

Application Number(s) or Patent Number(s)

☐ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

Patent Number(s)

ASSIGNMENT

WHEREAS, I, Joel N. Schulman of 1832 Lookout Road, Malibu, California 91320, United States of America (hereinafter "Assignor") have invented certain new and useful improvements in **INTEGRATED ASYMMETRIC RESONANT TUNNELING DIODE PAIR CIRCUIT** (hereinafter "Invention") for which an application for a United States Patent was filed on October 25, 1999, Application Number 09/427196 and/or for which Assignors are making or have made a foreign application for intellectual or industrial property protection under the appropriate body of law corresponding to that foreign jurisdiction.

AND

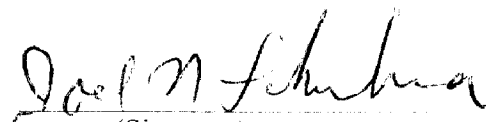
WHEREAS, HRL Laboratories, LLC, a limited liability company organized and existing under the laws of the State of Delaware, United States of America and having a place of business at 3011 Malibu Canyon Road, Malibu, California, United States of America, (hereinafter "Assignee"), is desirous of acquiring the entire right, title, and interest in the Invention within the United States of America and its territorial possessions, and in all foreign countries in which intellectual or industrial property protection may be granted therefor.

NOW, THEREFORE, for good and valuable consideration, the receipt whereof is hereby acknowledged, I, the Assignor desire to and do hereby assign, sell, and transfer unto Assignee the full and exclusive right to the Invention in the United States of America and its territorial possessions and in all foreign countries, as well as, the entire right, title and interest in and to any and all intellectual or industrial property rights including, but not limited to, Patents, designs, utility models, and inventor certificates which may be granted therefore in the United States of America and its territorial possessions and in all foreign countries, I hereby authorize and request the U.S. Patent Offices and the equivalent offices at foreign countries, to issue to the Assignee, any and all applicable intellectual or industrial property rights in the Invention, for the Assignee's sole use and benefit; and for the use and benefit of his legal representatives, to the full end of the term for which United States and foreign Patents or the like may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.

I further covenant and agree with the Assignee that I have a full and unencumbered title to the invention hereby assigned, which title I warrant unto the Assignee, and I further agree that I will, without demanding any further consideration therefore, at the request and at the expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign Patents or the like for the Invention, and for maintaining and perfecting the Assignee's right to the Invention and any and all intellectual or industrial property rights in it, particularly in cases of interference, conflict, opposition and litigation.

IN TESTIMONY WHEREOF, I have hereunto set my hand.

Executed this 26 day of July, 2000,
at Malibu, CA


(Signature)

ASSIGNMENT

WHEREAS, I, Yi-Ming Xie of 1520 A Pershing Drive, San Francisco, California 94129, United States of America (hereinafter "Assignor") have invented certain new and useful improvements in **INTEGRATED ASYMMETRIC RESONANT TUNNELING DIODE PAIR CIRCUIT** (hereinafter "Invention") for which an application for a United States Patent was filed on October 25, 1999, Application Number 09/427196 and/or for which Assignors are making or have made a foreign application for intellectual or industrial property protection under the appropriate body of law corresponding to that foreign jurisdiction.

AND

WHEREAS, HRL Laboratories, LLC, a limited liability company organized and existing under the laws of the State of Delaware, United States of America and having a place of business at 3011 Malibu Canyon Road, Malibu, California, United States of America, (hereinafter "Assignee"), is desirous of acquiring the entire right, title, and interest in the Invention within the United States of America and its territorial possessions, and in all foreign countries in which intellectual or industrial property protection may be granted therefor.

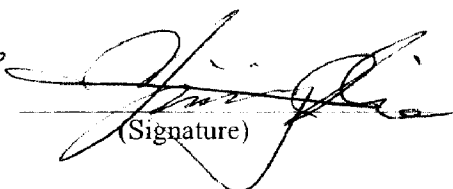
NOW, THEREFORE, for good and valuable consideration, the receipt whereof is hereby acknowledged, I, the Assignor desire to and do hereby assign, sell, and transfer unto Assignee the full and exclusive right to the Invention in the United States of America and its territorial possessions and in all foreign countries, as well as, the entire right, title and interest in and to any and all intellectual or industrial property rights including, but not limited to, Patents, designs, utility models, and inventor certificates which may be granted therefore in the United States of America and its territorial possessions and in all foreign countries, I hereby authorize and request the U.S. Patent Offices and the equivalent offices at foreign countries, to issue to the Assignee, any and all applicable intellectual or industrial property rights in the Invention, for the Assignee's sole use and benefit; and for the use and benefit of his legal representatives, to the full end of the term for which United States and foreign Patents or the like may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.

I further covenant and agree with the Assignee that I have a full and unencumbered title to the invention hereby assigned, which title I warrant unto the Assignee, and I further agree that I will, without demanding any further consideration therefore, at the request and at the expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign Patents or the like for the Invention, and for maintaining and perfecting the Assignee's right to the Invention and any and all intellectual or industrial property rights in it, particularly in cases of interference, conflict, opposition and litigation.

IN TESTIMONY WHEREOF, I have hereunto set my hand.

Executed this 3rd day of October, 2000,

at 1520 Pershing Drive #A San Francisco CA 94129


(Signature)

ASSIGNMENT

WHEREAS, I, David H. Chow of 3940 Greenwood Street, Newbury Park, California 91320, United States of America (hereinafter "Assignor") have invented certain new and useful improvements in **INTEGRATED ASYMMETRIC RESONANT TUNNELING DIODE PAIR CIRCUIT** (hereinafter "Invention") for which an application for a United States Patent was filed on October 25, 1999, Application Number 09/427196 and/or for which Assignors are making or have made a foreign application for intellectual or industrial property protection under the appropriate body of law corresponding to that foreign jurisdiction.

AND


WHEREAS, HRL Laboratories, LLC, a limited liability company organized and existing under the laws of the State of Delaware, United States of America and having a place of business at 3011 Malibu Canyon Road, Malibu, California, United States of America, (hereinafter "Assignee"), is desirous of acquiring the entire right, title, and interest in the Invention within the United States of America and its territorial possessions, and in all foreign countries in which intellectual or industrial property protection may be granted therefor.

NOW, THEREFORE, for good and valuable consideration, the receipt whereof is hereby acknowledged, I, the Assignor desire to and do hereby assign, sell, and transfer unto Assignee the full and exclusive right to the Invention in the United States of America and its territorial possessions and in all foreign countries, as well as, the entire right, title and interest in and to any and all intellectual or industrial property rights including, but not limited to, Patents, designs, utility models, and inventor certificates which may be granted therefore in the United States of America and its territorial possessions and in all foreign countries. I hereby authorize and request the U.S. Patent Offices and the equivalent offices at foreign countries, to issue to the Assignee, any and all applicable intellectual or industrial property rights in the Invention, for the Assignee's sole use and benefit; and for the use and benefit of his legal representatives, to the full end of the term for which United States and foreign Patents or the like may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.

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IN TESTIMONY WHEREOF, I have hereunto set my hand.

Executed this 26th day of June, 2000,
at HRL Laboratories


(Signature)