## PATENT ASSIGNMENT

# Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE:      | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT     |

### **CONVEYING PARTY DATA**

| Name                | Execution Date |
|---------------------|----------------|
| Brian E. Fuchs      | 06/21/2011     |
| James L. Zunino III | 06/21/2011     |
| Daniel P. Schmidt   | 06/14/2011     |
| Daniel Stec III     | 06/14/2011     |
| Anne Marie Petrock  | 06/21/2011     |

#### **RECEIVING PARTY DATA**

| Name:             | U.S. Government as Represented by the Secretary of the Army |
|-------------------|---|
| Street Address:   | RDAR-GCL/Bldg. 3  |
| Internal Address: | U.S. ARMY RDECOM-ARDEC                                      |
| City:             | Picatinny Arsenal, Dover                                    |
| State/Country:    | NEW JERSEY  |
| Postal Code:      | 07806-5000  |

### PROPERTY NUMBERS Total: 1

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 13109344 |

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ATTORNEY DOCKET NUMBER: 2009-068

**PATENT** 

**REEL: 026490 FRAME: 0568** 

| NAME OF SUBMITTER:   | Henry S. Goldfine |
|--|-------------------|
| Total Attachments: 6 source=068recordal#page1.tif source=068recordal#page2.tif source=068recordal#page3.tif source=068recordal#page4.tif source=068recordal#page5.tif source=068recordal#page6.tif |                   |

PATENT REEL: 026490 FRAME: 0569

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| Name of conveying party(ies)   | 2. Name and address of receiving party(ies)   |  |
| The State of the S | Name: U.S. Government as Represented by the Secretary of the Army                           |  |
| Brian E. Fuchs; James L. Zunino, III; Daniel P. Schmidt; Daniel Stec, III;<br>Anne Marie Petrock   | Internal Address: U.S. Army RDECOM-ARDEC  |  |
| Additional name(s) of conveying party(ies) attached? 🔲 Yes 🔀 No  | 1   |  |
| 3. Nature of conveyance/Execution Date(s):   | Street Address: RDAR-GCL/Bldq. 3  |  |
| Execution Date(s)6/21/11;6/21/11;6/14/11;6/21/11   |   |  |
| Assignment Merger Perpectively   |   |  |
| Security Agreement Change of Name  | City: Picatinny Arsenal, Dover  |  |
| Joint Research Agreement   | State:NJ  |  |
| Government Interest Assignment   |   |  |
| Executive Order 9424, Confirmatory License   | Country: US Zip 27806-5000  |  |
| Other  | Additional name(s) & address(es) attached? Yes X No   |  |
| A. Patent Application No.(s)  13/109,344 Filing Date: 5/17/2011  Additional numbers att  | document is being filed together with a new application.  B. Patent No.(s)  tached? Yes XNo |  |
| 5. Name and address to whom correspondence concerning document should be mailed:   | 6. Total number of applications and patents   |  |
| Namelori Andrews   | involved: 1   |  |
|  | 7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00  |  |
| Internal Address: U.S. Army RDECOM-ARDEC   | 1   |  |
|  | Authorized to be charged to deposit account   |  |
| Street Address: RDAR-GCL/Bldg. 3   | Enclosed  |  |
|  | None required (government interest not affecting title)                                     |  |
| City: Picatinny Arsenal, Dover   | 8. Payment Information  |  |
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| 9. Signature: /Henry S. Goldfine/  | lung 22 2011  |  |
| Signature  | June 23, 2011 Date  |  |
| Henry S. Goldfine  | Total number of pages including cover 6   |  |
| Name of Person Signing   | sheet, attachments, and documents:  |  |

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## ASSIGNMENT OF INVENTION

| Patent Application Title: Flexible Detonator Integrated With Directly Writte   | n Energetics  |
|--|---|
| Inventor(s): Brian E. Fuchs; James L. Zunino, III; Daniel P. Schmidt; Daniel   | el Stec, Ill; Anne Marie Petrock;   |
| Provisional Application Serial NoFilling date  |   |
| Patent Application Serial No. 13/109,344 Filing Date: 5/17/2011 Date Oa  | th executed: (1/1/16) 11/16/16/19/18  |
| Patent Application Serial No. 13/109,344 Filing Date: 5/47/2011 Date Oa  Docket No.: 2009-068 Patent Number:   | 6/21/11 respectively  |
| I (We), the undersigned inventor(s), in consideration of the States acquired by virtue of the circumstances under which hereby:  1. Assign to the Government of the United States, as the entire right, title and interest throughout the United State Rico, in and to the above-identified invention(s), provisional Patent Cooperation Treaty application(s), and all Letters Pate continuation-in-part or division of said application(s) and any 2. Agree to assign to the Government upon its reque in those foreign countries in which the Government, within eiapplication for patent, determines to cause an application to application; provided that if the Government determines not in particular foreign country or fails to make such a determination patent and in the said eight months, all right, title and indicated in the said eight months, all right, title and indicated in the said eight months and in the said eight months.  3. Agree to provide any further information within my documents necessary to the prosecution of patent application settlement of interferences and recording of title to patent application settlement of interferences and recording of title to patent application settlement of interferences and recording of title to patent application settlement of interferences and recording of title to patent application settlement of interferences and recording of title to patent application settlement of interferences and recording of title to patent application settlement of interferences and recording of title to patent application in the said eight months. | the rights of the Government of the United the above-entitled invention was made, is represented by the Secretary of the Army, is, its Territories, Possessions and Puerto application(s), application(s) for patent, and tent issuing thereon, and any continuation, reissue or extension of said Letters Patent, st, all right, title and interest in the Invention light months of the filing of the United States be filed or files a Patent Cooperation Treaty to cause an application to be filed in any on, or fails to file a Patent Cooperation Treaty terest in the invention in such foreign country le, royalty-free license to the Government in country, including the power to issue erance of the foreign policies of the |
| Signature of Inventor aren Educat And  | Date: 21 June 11  |
| Typed Name of Inventor: Brian E. Fuchs   |   |
| Address: 106 Countryside Lane, Hackettstown, NJ 07840  |   |
|  | •   |
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| Address: 2 Berton Road, Boonton Twp., NJ 07005   |   |
| Signature of Inventor  | Date:   |
| yped Name of Inventor: Daniel P. Schmidt   |   |
| derone: 40 Nov. or or or or  |   |

PATENT

REEL: 026490 FRAME: 0571

#### ASSIGNMENT OF INVENTION

| raterit Application Title. Fiexible Detonator Integrated With Directly Writte  | π Energetics   |
|--|--|
| Inventor(s): Brian E. Fuchs; James L. Zunino, III; Daniel P. Schmidt; Daniel   | el Stec, III; Anne Marie Petrock;  |
| Provisional Application Serial NoFiling date   | The state of the s |
| Patent Application Serial No. 13/109.344 Filing Date: 5/17/2011 Date Oa  Docket No.: 2009-068 Patent Number:   | th executed: 6/3///, 6/3////, 6/3///// 6/19///   |
| Docket No.: 2009-068 Patent Number:  | 6/21/11 respectively   |
| I (We), the undersigned inventor(s), in consideration of the States acquired by virtue of the circumstances under which hereby:  1. Assign to the Government of the United States, as the entire right, title and interest throughout the United States Rico, in and to the above-identified invention(s), provisional Patent Cooperation Treaty application(s), and all Letters Parcontinuation-in-part or division of said application(s) and any 2. Agree to assign to the Government upon its reques in those foreign countries in which the Government, within e application for patent, determines to cause an application to application; provided that if the Government determines not particular foreign country or fails to make such a determination application, within the said eight months, all right, title and in shall remain in me (us), subject to a nonexclusive, irrevocab any patent which may issue on the invention in such foreign sublicenses for use in behalf of the Government and/or furth Government.  3. Agree to provide any further information within my documents necessary to the prosecution of patent application settlement of interferences and recording of title to patent application settlement of interferences and recording of title to patent applications. | the above-entitled invention was made, s represented by the Secretary of the Army, es, its Territories, Possessions and Puerto application(s), application(s) for patent, and tent issuing thereon, and any continuation, or reissue or extension of said Letters Patent, est, all right, title and interest in the invention eight months of the filing of the United States be filed or files a Patent Cooperation Treaty to cause an application to be filed in any on, or fails to file a Patent Cooperation Treaty terest in the invention in such foreign country le, royalty-free license to the Government in country, including the power to issue terance of the foreign policies of the   |
| Signature of Inventor  |  |
| Typed Name of Inventor: Brian E. Fuchs   |  |
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| Signature of Inventor  Typed Name of Inventor: James L. Zurlino, III   | Date: 6/21/10  |
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PATENT REEL: 026490 FRAME: 0572

## ASSIGNMENT OF INVENTION

Patent Application Title: Flexible Detonator Integrated With Directly Written Energetics

| Inventor(s): Brian E. Fuchs; James L. Zunino, III; Daniel P. Schmidt; Daniel  | Stec, III; A   | Anne Marie Petrock;  |   |
|---|--|--|---|
| Provisional Application Serial NoFiling date  |  | • .  | , i   |
| Provisional Application Serial NoFiling date  | h executed:  | 16/21/11/6/21  | 111: 6/14/1; 6  |
| Docket No.: 2009-068 Patent Number;   |  | 6/s.   | I) m respect  |
| I (We), the undersigned inventor(s), in consideration of the States acquired by virtue of the circumstances under which is hereby:  1. Assign to the Government of the United States, as the entire right, title and interest throughout the United States Rico, in and to the above-identified invention(s), provisional a Patent Cooperation Treaty application(s), and all Letters Pate continuation-in-part or division of said application(s) and any 2. Agree to assign to the Government upon its reques in those foreign countries in which the Government, within eighplication for patent, determines to cause an application to application; provided that if the Government determines not to particular foreign country or fails to make such a determination application, within the said eight months, all right, title and interest that it is make such a determination application, within the said eight months, all right, title and interest that it is the context of the patent which may issue on the invention in such foreign caps. | e rights on the above represents, its Terrapplication reissue cest, all right month be filed on cause a port, or falls rest in the royalty country, in | of the Government entitled invention ted by the Secreptiones, Possession (s), application (s) thereon, and any extension of sant, title and interests of the filing of its files a Patent Community of the invention in sufficiency to the invention in sufficiency to the invention in sufficiency the power invention in sufficiency the power invention in sufficiency the power invention in sufficiency in the power invention in sufficiency in the power invention in sufficiency in the power invention in the po | t of the United in was made, tary of the Army, ons and Puerto is) for patent, and ny continuation, id Letters Patent in the invention the United States coperation Treaty be filed in any Cooperation Treaty in the Government in the Government in the Issue |
| sublicenses for use in behalf of the Government and/or furthe<br>Government.  3. Agree to provide any further information within my documents necessary to the prosecution of patent application settlement of interferences and recording of title to patent applications.   | erance of<br>(our) know<br>as on the   | the foreign policion whether and to ex-<br>invention(s), the   | es of the<br>ecute any further<br>prosecution and   |
| Signature of Inventor   | Date:_   |  | <b>-</b>  |
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| Address: 106 Countryside Lane, Hackettstown, NJ 07840   |  |  |   |
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| Signature of Inventor                                  | Date:            |
|--|------------------|
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| Signature of Inventor Mr. R. D.                        | Date: 21 June () |
| Typed Name of Inventor: Anne Marie Petrock             |                  |
| Address: 460 West Hanover Avenue, Morristown, NJ 07906 | - 62.23.7        |

Page 2 of 2 Pages

**PATENT** 

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**RECORDED: 06/23/2011**