504447646 07/07/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

NEW ASSIGNMENT

EPAS ID: PAT4494347

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

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------|----------------|
| JOSEPH S. FRIEDMAN | 06/19/2014 |
| ALAN V. SAHAKIAN | 06/19/2014 |

RECEIVING PARTY DATA

| Name: | NORTHWESTERN UNIVERSITY | |
|-----------------|-------------------------|--|
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| City: | EVANSTON | |
| State/Country: | ILLINOIS | |
| Postal Code: | 60208 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15643811 |

CORRESPONDENCE DATA

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| ATTORNEY DOCKET NUMBER: | NWN01-084-US-DIV | |
|-------------------------|---------------------|--|
| NAME OF SUBMITTER: | VINCENT J. GNOFFO | |
| SIGNATURE: | /Vincent J. Gnoffo/ | |
| DATE SIGNED: | 07/07/2017 | |

Total Attachments: 2

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PATENT 504447646 REEL: 042934 FRAME: 0950

<u>ASSIGNMENT</u>

WHEREAS, WE, Joseph S. Friedman and Alan V. Sahakian (hereinafter collectively referred to as "ASSIGNORS") have invented certain new and useful improvements as described and set forth in the below-identified application for United States Letters Patent:

U.S. Patent Application Title: Threshold Logic with Electrostatically Formed Nanowire Transistors

Serial No.: 61/973,684 Filing Date: April 1, 2014

WHEREAS, Northwestern University, an Illinois not-for-profit corporation, having a place of business at 633 Clark Street, Evanston, Illinois 60208, hereinafter referred to as "ASSIGNEE," is desirous of acquiring the entire right, title and interest in said invention and application and in any Letters Patent which may be granted on the same:

NOW THEREPORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, receipt of which is hereby acknowledged, ASSIGNORS have sold, assigned and transferred, and by these presents do sell, assign and transfer unto said ASSIGNEE, and ASSIGNEE's successors and assigns, all right, title and interest in and to said invention, said application for United States Letters Patent, and any Letters Patent which may hereafter be granted on the same in the United States and all countries throughout the world, including any divisions, renewals, continuations in whole or in part, substitutions, conversions, reissues, or prolongations or extensions thereof, said interest to be held and enjoyed by said ASSIGNEE as fully and exclusively as it would have been held and enjoyed by said ASSIGNORS had this assignment and transfer not been made, to the full extent and term of any Letters Patent.

ASSIGNORS further agree that ASSIGNORS will, without charge to said ASSIGNEE, but at ASSIGNEE's expense, cooperate with ASSIGNEE in the prosecution of said application and/or applications; execute, verify, acknowledge, and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof; and perform such other acts as ASSIGNEE lawfully may request, to obtain or maintain Letters Patent for said invention and improvement in any and all countries, and to vest title thereto in said ASSIGNEE, or ASSIGNEE's successors and assigns.

IN TESTIMONY WHEREOF, ASSIGNORS have hereunto signed ASSIGNORS' names to this Assignment on the date indicated below.

| Dough Fredmin | 6/19/14 |
|--|---|
| TOSEPH S. FRIEDMAN | DATE |
| State of LLVN/05 | |
| County of LOOK ss. | |
| aforesaid, appeared, to me personally known to l | , 2014, before me, a Notary Public in and for the County and State be the same person whose name is subscribed to the foregoing instrument, astrument as his or her free and voluntary act and for the uses and |
| [NOTARY SEAL] | NOTARY PUBLIC My Commission Expires: WZ3/14 |

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OFFICIAL SEAL
ANA MARIA ANDRAS
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:10/23/16

PATENT REEL: 042934 FRAME: 0951

Assignment for Execution continued from Page 1

U.S. Patent Application Title: Threshold Logic with Electrostatically Formed Nanowire Transistors

Serial No.: 61/973,684

Filing Date: April 1, 2014

6/19/2014 DATE

State of 1441015

County of COOK

On this \(\sigma \) day of \(\superscript{\text{UV}} \), 2014, before me, a Notary Public in and for the County and State aforesaid, appeared, to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he or she executed said instrument as his or her free and voluntary act and for the uses and purposes therein expressed.

[NOTARY SEAL]

NOTARY PUBLIC

My Commission Expires: 10/23/14

OFFICIAL SEAL ANA MARIA ANDRAS NOTARY PUBLIC - STATE OF ILLINOIS MY COMMISSION EXPIRES 10/23/16

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