PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------------------|----------------|
| Tong Zhao | 06/28/2012 |
| Michael Christopher Kautzky | 06/28/2012 |
| Michael Allen Seigler | 06/22/2012 |
| Yongjun Zhao | 06/22/2012 |
| Jay Jayashankar | 06/22/2012 |
| Xiaoyue Huang | 06/22/2012 |

RECEIVING PARTY DATA

| Name: | SEAGATE TECHNOLOGY LLC | |
|-----------------|---------------------------|--|
| Street Address: | 10200 S. DeAnza Boulevard | |
| City: | Cupertino | |
| State/Country: | CALIFORNIA | |
| Postal Code: | 95014 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13537758 |

CORRESPONDENCE DATA

Fax Number: (612)305-1228 Phone: 6123051006

Email: dlagro@mrgiplaw.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

501974011

Correspondent Name: Anna M. Nelson Address Line 1: Post Office Box 581336

Address Line 4: Minneapolis, MINNESOTA 55458-1336

ATTORNEY DOCKET NUMBER: 430.16837010

PATENT

REEL: 028470 FRAME: 0607

| NAME OF SUBMITTER: | Anna M. Nelson |
|--|----------------|
| Total Attachments: 4 source=Assignment-16837#page1.tif source=Assignment-16837#page2.tif source=Assignment-16837#page3.tif source=Assignment-16837#page4.tif | |

PATENT REEL: 028470 FRAME: 0608

ASSIGNMENT

Seagate Docket No.: 430.16837010

WHEREAS, I/we Tong Zhao of 11343 Stratton Avenue, Unit 218, Eden Prairie, Minnesota 55344; Michael

WHEREAS, Seagate Technology LLC, a limited liability company organized and existing under the laws of the State of Delaware and the United States of America, and having offices at 10200 S. De Anza Blvd, Cupertino, CA 95014 USA, ("Assignee") is desirous of acquiring the entire right, title and interest in and to the invention, the applications, and any and all Letters Patent or similar foreign or domestic legal protection;

; and/or executed on even date herewith:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, I/we transfer to Assignee, its successors and assigns, my/our entire right, title and interest in and to the invention, the above-identified applications, all provisional applications from which any of the above-identified applications claim priority, corresponding domestic and foreign applications, any continuation, division, renewal, or substitute for the applications, all Letters Patent, any reissue, re-examination, or similar legal protection issuing related to the Letters Patent, and all rights and benefits under any applicable treaty or convention; and I/we authorize the Director of the United States Patent and Trademark Office or foreign equivalent to issue the Letters Patent or similar legal protection to the Assignee.

I/We authorize the Assignee, its successors and assigns, to insert in this instrument the filing date(s) and application numbers when ascertained. I/We further authorize the Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent or similar legal protection, in its own name if desired, in any and all foreign countries and appoint Assignee the common representative in the above identified international application and any international application for the invention.

I/We represent to the Assignee, its successors and assigns, that I/we have not and shall not execute any writing or do any act whatsoever conflicting with this Assignment. I/We, my/our executors or administrators, will at any time upon request, without additional consideration, but at the expense of the Assignee, its successors and assigns, execute and deliver to Assignee or its legal representatives such additional writings and do such additional acts as the Assignee, its successors and assigns, may deem desirable to perfect its enjoyment of this grant, and render all assistance in making application for and obtaining, maintaining, and enforcing the Letters Patent or similar legal protection on the invention in any and all countries, including without limitation providing testimony in any related interference, litigation or proceeding.

| | Tong Zhao (Inventor) 6/≥2/30/2 |
|---|--|
| | Date |
| State of Mipnesota | |
| County of Hennepin | |
| On June 28, 2012 before me. | (insert name and title of the officer) |
| whose name is subscribed to the within instrumen authorized capacity, and that by his/her signature acted, executed the instrument. |), who proved to me on the basis of satisfactory evidence to be the person t and acknowledged to me that he/she executed the same in his/her on the instrument the person, or the entity upon behalf of which the person |
| I certify under PENALTY OF PERJURY under the paragraph is true and correct. | laws of the State of Minnesofa. that the foregoing |
| | ₽∙₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽ |
| WITNESS my hand and official seal. | RUTH C. ZIEBLE Notary Public-Minnesota Wy Gammission Expires JED 21, 2018 |
| | C ENWAYWWWWWWWAAAAA |
| Signature of Notary Public | (Seal) |
| Emergina management of an electrical management of the second second second second second second second second | ing and the second of the seco |
| | |
| | Michael Champly |
| | Michael Christopher Kautzky (Inventor) |
| e d | Date Date |
| State of Minnesola | |
| County of Lense PIN | À |
| On Tuve 28,30/2 before me, | (insert name and title of the officer) |
| to be the person whose name is subscribed to the in his/her authorized capacity, and that by his/her the person acted, executed the instrument. | utzky (Inventor), who proved to me on the basis of satisfactory evidence within instrument and acknowledged to me that he/she executed the same signature on the instrument the person, or the entity upon behalf of which |
| I certify under PENALTY OF PERJURY under the paragraph is true and correct. | laws of the State of Minnesofa that the foregoing |
| WITNESS my hand and official seal. | FLITH C. ZIBBLE & Noterly Public-Minnesota & My Committee Papiros Jan 31, 2015 & My Committee Papiros |
| Signature of Notary Public | (Seal P |

-2-

U.S. Assignment - Seagate Technology LC - Confidential

PATENT REEL: 028470 FRAME: 0610

| | 6-22-2012 |
|---|---|
| | Daté |
| State of MN | |
| County of Hennepu | 10 A |
| County of Hennepin On June 22, 2012 before rise, Ma | (insert name and title of the officer) |
| personally appeared <u>Michael Allen Seigler</u> (Inv | ventor), who proved to me on the basis of satisfactory evidence to be ment and acknowledged to me that he/she executed the same in on the instrument the person, or the entity upon behalf of which the |
| WITNESS my hand and official seal. | MELISSA ANN ZARNS NOTARY PUBLIC - MINNESOTA MY COMMISSION EXPIRES 01/31/17 |
| Signature Of Notary Public (Seal) |) The second of |
| | Yongjun Zhao (Inventor) |
| State of MN County of Howner) | Date (1727/2012 |
| State of MN County of Hamepin On MNe 72,2012 before me, Mc | (insert name and title of the officer) |
| personally appeared <u>Yongiun Zhao</u> (Inventor), w | ho proved to me on the basis of satisfactory evidence to be the nt and acknowledged to me that he/she executed the same in his/her instrument the person, or the entity upon behalf of which the person |
| I certify under PENALTY OF PERJURY under the laws of paragraph is true and correct. | of the State of that the foregoing |
| WITNESS my hand and official seal. | |
| Signature of Notary Public (Seal | MELISSA ANN ZARNS NOTARY PUBLIC - MINNESOTA MY COMMISSION EXPIRES 01/31/17 |

Michael allen Sug /

| kan/cohol |
|--|
| Jav Javashankar (Inventor) |
| 6/22/12 |
| Date |
| State of VIV |
| County of HUMPIN |
| On JUNE 22, 2012 before me, MEUSSA Zarns, Notary (insert name and title of the officer) |
| (insert name and title of the officer) |
| personally appeared <u>Jay Jayashankar</u> (Inventor), who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument. |
| I certify under PENALTY OF PERJURY under the laws of the State of that the foregoing paragraph is true and correct. |
| WITNESS my hand and official seal. |
| MELISSA ANN ZARNS & |
| NOTARY PUBLIC - MINNESOTA MY COMMISSION EXPIRES 01/31/17 Signature (Seal) |
| Signature of Notary Public |
| |
| State of |
| County of Hamepin |
| On JUNE 22, 2012 before me, Mclissa Zarns, Notarn (insert name and title of the officer) |
| personally appeared Xiaoyue Huang (Inventor), who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument. |
| I certify under PENALTY OF PERJURY under the laws of the State of that the foregoing paragraph is true and correct. |
| |
| WITNESS my hand and official seal. |
| MELISSA ANN ZARNS |
| Signature MEDISSA TUVA (Seal) MELISSA ANIVESOTA NOTARY PUBLIC - MINNESOTA NOTARY PUBLIC - MINNE |
| Signature 1 1 1 Signature of Notary Public |

PATENT REEL: 028470 FRAME: 0612