

PATENT ASSIGNMENT

Electronic Version v1.1
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| SUBMISSION TYPE: | NEW ASSIGNMENT | | | | | | | | | | |
|--|---------------------------------|---------------|----------------|---------------------------|------------|----------------------|------------|---------|------------|------------|------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT | | | | | | | | | | |
| CONVEYING PARTY DATA | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Patrick Mesquita Braganca</td> <td>02/11/2013</td> </tr> <tr> <td>Jeffrey R. Childress</td> <td>02/11/2013</td> </tr> <tr> <td>Yang Li</td> <td>02/11/2013</td> </tr> <tr> <td>Neil Smith</td> <td>02/11/2013</td> </tr> </tbody> </table> | | Name | Execution Date | Patrick Mesquita Braganca | 02/11/2013 | Jeffrey R. Childress | 02/11/2013 | Yang Li | 02/11/2013 | Neil Smith | 02/11/2013 |
| Name | Execution Date | | | | | | | | | | |
| Patrick Mesquita Braganca | 02/11/2013 | | | | | | | | | | |
| Jeffrey R. Childress | 02/11/2013 | | | | | | | | | | |
| Yang Li | 02/11/2013 | | | | | | | | | | |
| Neil Smith | 02/11/2013 | | | | | | | | | | |
| RECEIVING PARTY DATA | | | | | | | | | | | |
| Name: | HGST NETHERLANDS B.V. | | | | | | | | | | |
| Street Address: | Herikerbergweg 238, Luna Arena | | | | | | | | | | |
| City: | 1101 CM AMSTERDAM | | | | | | | | | | |
| State/Country: | NETHERLANDS | | | | | | | | | | |
| PROPERTY NUMBERS Total: 1 | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13764559</td> </tr> </tbody> </table> | | Property Type | Number | Application Number: | 13764559 | | | | | | |
| Property Type | Number | | | | | | | | | | |
| Application Number: | 13764559 | | | | | | | | | | |
| CORRESPONDENCE DATA | | | | | | | | | | | |
| Fax Number: | 4087179155 | | | | | | | | | | |
| <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> | | | | | | | | | | | |
| Email: | tom.berthold@comcast.net | | | | | | | | | | |
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| ATTORNEY DOCKET NUMBER: | HSJ920120091US1 | | | | | | | | | | |
| NAME OF SUBMITTER: | Thomas R. Berthold | | | | | | | | | | |
| Total Attachments: 1 source=HSJ920120091US1_AssignmentSigned#page1.tif | | | | | | | | | | | |

CH \$40.00 13764559

ASSIGNMENT FOR PATENT APPLICATION



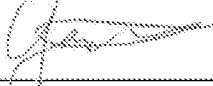
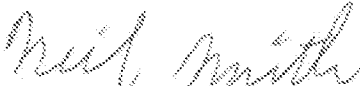
Whereas, I/we the undersigned inventor(s) have invented certain improvements as set forth in the patent application entitled:

CURRENT-PERPENDICULAR-TO-THE-PLANE (CPP) MAGNETORESISTIVE SENSOR WITH AN EXCHANGE-COUPLED REFERENCE LAYER HAVING SHAPE ANISOTROPY

Whereas, **HGST Netherlands B.V.**, having a place of business at Herikerbergweg 238, Luna Arena, 1101 CM Amsterdam, The Netherlands (hereinafter referred to as "HGST"), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefore;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, I/we, the above named, hereby sell, assign, and transfer to HGST, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the inventions set forth in said application to HGST, its successors and assigns; and we hereby agree that HGST may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by HGST.

Signed on the date(s) indicated beside my (our) signature(s).

| | |
|----------------------|--|
| 1. Full Name | Patrick Mesquita Braganca |
| Inventor's Signature |  date 2/11/13 |
| 2. Full Name | Jeffrey R. Childress |
| Inventor's Signature |  date 2/11/13 |
| 3. Full Name | Yang Li |
| Inventor's Signature |  date 2/11/13 |
| 4. Full Name | Neil Smith |
| Inventor's Signature |  date 2/11/13 |