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To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.			
1. Name of conveying party(ies):	Name and address of receiving party(ies):		
1 Yoshihiko FUЛ 5 Min LI			
2 Hideaki FUKUZAWA 6 Michiko HARA	1) Name: KABUSHIKI KAISHA TOSHIBA		
3 Hiromi YUASA 7 Yoshinari KUROSAKI	Street Address: 1-1, Shibaura 1-chome, Minato-ku, City: Tokyo,		
4 Kunliang ZHANG	City. 10kyo,		
<u></u>	State/Country: Japan Zip: 105-8001		
Additional name/s of conveying party/ies attached?			
	2) Name TDK CORPORATION		
Assignment	Street Address: 13-1, Nihonbashi 1-chome, Chuo-ku		
☐ Security Assignment ☐ Change of Name ☐ Other	City: Tokyo State: Japan Zip: 103-8272		
	State. Japan 21p. 103-0272		
Execution Date: 1) February 26, 2008; 2) February 26, 2008; 3) February 26, 2008; 4) March 3, 2008; 5) March 3, 2008; 6) February 26, 2008; and 7) February 26, 2008.	Additional name/s & address/es attached? Yes No		
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	assignment is being filed together with a new application.		
A. Patent Application No(s).	B. Patent No(s).		
(1) To Be Assigned	(1)		
(2)	(2)		
(3) Additional numbers att	(3) ached Tyes No		
5. Name and address of party to whom correspondence	6. Total number of applications & patents involved:		
concerning document should be mailed:			
	7. Total fee (37 CFR 3.41) \$ 40.00		
Name: Michael J. Shea			
	Authorized to be charged to deposit account #14-1140		
Internal Address:			
	8. The Commissioner is hereby authorized to charge any		
Street Address: Nixon & Vanderhye P.C.	deficiency in the fee(s) filed, or asserted to be filed, or which		
901 North Glebe Road	should have been filed herewith (or with any paper thereafter filed in this application by this firm) to our Account No.		
City: Arlington State: VA Zip: 22203	14-1140.		
City. Ailligion State. VA Zip. ZZZZZ	14-1140.		
DO NOT USE THIS SPACE			
9. Statements and signature.			
To the best of my knowledge and belief, the foregoing informat	ion is true and correct and any attached copy is a true copy		
of the original document.	$\Omega_{\Lambda}\Omega$		
Michael J. Shea	March 11, 2008		
Name of Person Signing Sign	Date		
Reg. No. 34,725			
Total number of pages including original cover sheet, attachments, and document: [5]			
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Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, P.O. Box 1450, Alexandria, VA 22313-1450

03/12/2008 NNGUYEN1 00080005 12073895

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PATENT REEL: 020677 FRAME: 0962

ASSIGNMENT OF PATENT APPLICATION

(Inventors)

- 1) Yoshihiko FUJI of Kawasaki-shi, Kanagawa-ken, Japan;
- 2) Hideaki EUKUZAWA of Kawasaki-shi, Kanagawa-ken, Japan;
- 3) Hiromi YUASA of Kawasaki-shi, Kanagawa-ken, Japan;
- 4) Kunliang ZHANG of Milpitas, California, USA;
- 5) Min LI of Milpitas, California, USA;
- 6) Michiko HARA of Yokohama-shi, Kanagawa-ken, Japan; and
- 7) Yoshinari KUROSAKI of Kawasaki-shi, Kanagawa-ken, Japan * 13-1, Nihonbashi 1-chome, Chuo-ku, Tokyo

In consideration of the sum of one dollar (\$1.00) and other good and valuable considerations paid to each of the undersigned, the undersigned agree(s) to assign, and

103-8272 Japa

(Address)

hereby does assign, transfer and set over to (Assignee) 1) KABUSHIKI KAISHA TOSHIBA and 2) TDK CORPORATION

(of1) 1-1, Shibaura 1-chome, Minato-ku, Tokyo 105-8001 Japan; and 2)* (hereinafter designated as the Assignee) the undersigned's entire right, title and interest for the United States, its territories, dependencies and possessions, and for the country of

(Other Countries) (Title)

in the invention, and all application(s) for patent and any Letters Patent which may be granted therefor, known as MAGNETO-RESISTANCE EFFECT ELEMENT, AND METHOD FOR (Case No. MANUFACTURING THE SAME

filed on

for which the undersigned has (have) executed on even date herewith an application for patent in the United States of America or, if not on even date, then has executed or has already filed in

(U.S. appln. Serial No.

The undersigned acknowledges an obligation of assignment of this invention to said assignee at the time the invention was made.

The undersigned agree(s) to execute all papers and documents necessary in connection with the application or any interference which may be declared and any continuing or divisional applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient and further to perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patent of the United States resulting from said application or any division or divisions or continuing applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the firm of NIXON & VANDERHYE P.C. the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent Office for recordation of this document. It is understood and agreed that ASSIGNEE'S attorneys Nixon & Vanderhye P.C. have represented only ASSIGNEE and will continue to represent only ASSIGNEE with respect to this invention.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned signature(s).

> PATENT REEL: 020677 FRAME: 0963

Date Feb. 28, 2008	Signature of inventor	(Yoshihiko Fuji Yoshihiko Fuji
Date Feb. 26, 2008	Signature of inventor	(Dzdulizi Tokaj Hideaki FUKUZAWA
Date Self-26, 2008	Signature of inventor	(Livom Juase Hiromi YUASA)
Date	Signature of inventor	(
Date	Signature of inventor	(Min LI
Date Feb. 26. 2008	Signature of inventor	(<u>Michiko 174ara</u>
Date Feb. 26, 2008	Signature of inventor	(Yoshinari Kurosaki
Date	Signature of inventor	Yoshinari KUROSAKI
Date	Signature of inventor	(
Date	Signature of inventor	(
Date	Signature of inventor	(

Japan

ASSIGNMENT OF PATENT APPLICATION

- (Inventors) 1) Yoshihiko FUJI of Kawasaki-shi, Kanagawa-ken, Japan;
 - 2) Hideaki FUKUZAWA of Kawasaki-shi, Kanagawa-ken, Japan;
 - 3) Hiromi YUASA of Kawasaki-shi, Kanagawa-ken, Japan;
 - 4) Kunliang ZHANG of Milpitas, California, USA;
 - 5) Min LI of Milpitas, California, USA;
 - 6) Michiko HARA of Yokohama-shi, Kanagawa-ken, Japan; and
 - 7) Yoshinari KUROSAKI of Kawasaki-shi, Kanagawa-ken, Japan
 * 13-1, Nihonbashi 1-chome, Chuo-ku, Tokyo

103-8272

In consideration of the sum of one dollar (\$1.00) and other good and valuable considerations paid to each of the undersigned, the undersigned agree(s) to assign, and

(Address)

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In witness whereof, executed by the undersigned on the date(s) opposite the undersigned signature(s).

PATENT

REEL: 020677 FRAME: 0965

Date	Signature of inventor	Yoshihiko FUJI
Date	Signature of inventor	(
Date	Signature of inventor	(Hiromi YUASA
DateMarch 3, 2008	Signature of inventor	Kunliang ZHANG
Date <u>March 3, 2008</u>	Signature of inventor	Min LI
Date	Signature of inventor	(Michiko HARA
Date	Signature of inventor	Yoshinari KUROSAKI
Date	Signature of inventor	(
Date	Signature of inventor	(
Date	Signature of inventor	(
Date	Signature of inventor	