

05-23-2000

-HEET

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

101327438

To the Hon. Commissioner of Patents &amp; Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Nobuyuki ISHIWATA, Keishi OHASHI  
and Hisanao TSUGEAdditional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 3. Nature of conveyance: 12-8-1999

- ☒ Assignment ☐ Merger
- ☐ Security Agreement ☐ Change of Name
- ☐ Other

Execution Date: December 3, 1999

## 2. Name and address of receiving party(ies):

Name:  
NEC CORPORATIONStreet Address:  
7-1, Shiba 5-chome  
Minato-ku  
Tokyo, Japan

JC377 U.S. PTO

09/456881



12/08/99

## 4. Application number(s) or patent (numbers):

If this document is being filed together with a new application, the execution date of the application is: December 3, 1999

A. Patent Application No(s).

B. Patent No(s).

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

YOUNG & THOMPSON  
Second Floor  
745 South 23rd Street  
Arlington, VA 22202

## 6. Total number of applications and patents involved:

1

7. Total fee (37 CFR 3.41).....\$ 40

- ☒ Enclosed
- ☐ Authorized to be charged to deposit account

## 8. Deposit Account No. 25-0120

(Attach duplicate copy of this page if paying by deposit account)

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## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Lauren Terry  
Name of Person SigningLauren Terry  
SignatureDecember 8, 1999  
Date

Total number of pages including cover sheet: 121

40E  
NOSPEC  
Fee

PATENT

REEL: 010663 FRAME: 0564

Deed of Assignment (Before Patent)

ASSIGNMENT

WHEREAS, NOBUYUKI ISHIWATA, KEISHI OHASHI and HISANAO TSUGE  
of Tokyo, Japan

have invented certain new and useful improvements in TUNNELING MAGNETORESISTANCE  
TRANSDUCER AND METHOD FOR MANUFACTURING THE SAME

for which we are about to make application for Letters  
(I/we have made—or am/are about to make)

Patent of the United States of America;

AND WHEREAS, NEC Corporation, 7-1, Shiba 3-chome,  
Minato-ku, Tokyo, Japan is

desirous of acquiring an interest therein and in the Letters Patent to be obtained therefor from the  
United States;

NOW THEREFORE, be it known by all whom it may concern, that for and in consideration of  
One Dollars (\$ 1.00)

to in hand paid, the receipt of which is hereby acknowledged the said ASSIGNEE  
have assigned, sold, and set over, and by these presents do hereby assign, sell, and set over unto the said  
ASSIGNEE, NEC Corporation

\* the full and exclusive right, title, and interest in and to the said invention,  
as fully set forth and described in the:

Deletes  
Inapplicable  
wording

(a) specification prepared and executed by us on the 3-rd day of December, 1999,

(b) application filed on the day of, 1999, Serial No. ,

preparatory to obtaining Letters Patent therefor; said invention, application and Letters Patent to be  
held and enjoyed by the said ASSIGNEE, NEC Corporation  
for their own use and behoof, and for their legal representatives, to the full end of the term  
for which said Letters Patent are granted, as fully and entirely as the same would have been held by  
us had this assignment and sale not been made.

IN TESTIMONY WHEREOF, we hereunto set our hands and affix our seals at  
Tokyo, Japan this 3-rd day of December, A.D. 1999

Nobuyuki Ishiwata (Inventor's full Signature) NOBUYUKI  
Keishi Ohashi KEISHI OHASHI  
Hisanao Tsuge HISANAO TSUGE

Witness:

Fumitake Watanabe

\* State whether the full and exclusive right, or what part of the whole interest is assigned.

PATENT

REEL: 010663 FRAME: 0565



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

MARCH 16, 2000

PTAS

YOUNG & THOMPSON  
LAUREN TERRY  
SECOND FLOOR  
745 SOUTH 23RD STREET  
ARLINGTON, VA 22202



\*101231479A\*

**UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT**

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 12/~~03~~/1999

**08**

REEL/FRAME: 010450/0823

NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

ISHIWATA, NOBUYUKI

DOC DATE: 12/03/1999

ASSIGNOR:

OHASHI, KEISHI

DOC DATE: 12/03/1999

ASSIGNOR:

TSUGE, HISANAO

DOC DATE: 12/03/1999

ASSIGNEE:

NEC CORPORATION  
7-1, SHIBA 5-CHOME  
MINATO-KU  
TOKYO, JAPAN

SERIAL NUMBER: 09456881  
PATENT NUMBER:

FILING DATE: 12/08/1999  
ISSUE DATE:

**PATENT  
REEL: 010663 FRAME: 0566**

MAURICE CARTER, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

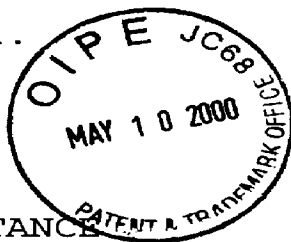
In re application of

Nobuyuki ISHIWATA et al.

Serial No. 09/456,881

Filed December 8, 1999

TUNNELING MAGNETORESISTANCE  
TRANSDUCER AND METHOD FOR  
MANUFACTURING THE SAME



BOX ASSIGNMENTS

**REQUEST FOR CORRECTION OF NOTICE OF RECORDATION  
OF ASSIGNMENT DOCUMENT**

Assistant Commissioner for Patents

Washington, D.C. 20231

Sir:

We return herewith the recorded assignment of the above-identified application for correction of the information contained in the Notice of Recordation of Assignment Document, as follows:

RECORDATION DATE: December 8, 1999

It is requested that this error be corrected and the properly recorded document be returned to us in due course.

Respectfully submitted,

YOUNG & THOMPSON

By

Robert J. Patch  
Attorney for Applicants  
Registration No. 17,355  
745 South 23rd Street  
Arlington, VA 22202  
Telephone: 521-2297

May 10, 2000