

FORM PTO-1595 (modified)

(Rev. 6-93)

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Patent and Trademark Office

To the Director of the United States Patent and Trademark Office: Please record the attached original documents or copies thereof.

1. Name of conveying party(ies):

**Hidefumi HIURA  
Tetsuya TADA  
Toshihiko KANAYAMA**

Additional conveying party(ies) attached?

**NO**

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

**NEC CORPORATION  
7-1, Shiba 5-chome  
Minato-ku, Tokyo  
JAPAN**

**National Institute of Advanced Industrial  
Science and Technology  
3-1, Kasumigaseki 1-chome,  
Chiyoda-ku, Tokyo  
Japan**

3. Nature of conveyance:

**ASSIGNMENT**

Execution Date:

**December 22, 2005**

Additional name(s) & address(es) attached?

**NO**

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

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

A. Patent Application Number(s):

**11/325,547**

B. Patent Number(s):

Additional numbers attached? **NO**

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

FAX: 202.672.5399

**David A. Blumenthal  
FOLEY & LARDNER LLP  
Washington Harbour  
3000 K Street, N.W., Suite 500  
Washington, D.C. 20007-5143**

6. Total number of applications/patents involved: **1**

7. Total fee (37 C.F.R. § 3.41): **\$40.00**

Check Enclosed

Charge to deposit account

8. Deposit account number: **19-0741**

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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. The Commissioner is hereby authorized to charge any additional recordation fees which may be required in this matter to the above-identified deposit account.*

*RN38072*

*David A. Blumenthal*

*1/24/06*

Name of person signing

Signature

Date

Total number of pages including cover sheet, attachments, and document: **3**

CH \$40.00 190741 11325547

## ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor (hereinafter referred to as "ASSIGNOR") has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto

**NEC Corporation**  
**7-1, Shiba 5-chome, Minato-ku, Tokyo, Japan**

**National Institute of Advanced Industrial Science and Technology**  
**3-1, Kasumigaseki 1-chome, Chiyoda-ku, Tokyo, Japan**

(hereinafter ASSIGNEE) its successors and assigns, the full and exclusive right, title and interest for the United States, its territories and possessions in and to this invention relating to

DOPANT MATERIAL, DOPANT MATERIAL MANUFACTURING METHOD,  
 AND SEMICONDUCTOR DEVICE USING THE SAME

as set forth in this United States Patent Application

Check  executed concurrently herewith  
 one  executed on \_\_\_\_\_  
 Serial No. 11/325,547 Filed 1/5/06  
 and

as well as in and to (a) all improvements and modifications of the above-identified invention or inventions, (b) the above-identified application and all other applications for Letters Patent of the United States for above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States and counties foreign thereto, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the International Convention and any other international agreement to which the United States adheres; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

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

ASSIGNEE, its successors and assigns, in any such proceeding in the United States; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, and declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of **Foley & Lardner LLP** the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of **Foley & Lardner LLP** do not personally represent ASSIGNOR OR ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

**NAME AND SIGNATURE OF INVENTOR(S)**

|                                 |  |                                |
|---------------------------------|--|--------------------------------|
| NAME: <u>Hidefumi HIURA</u>     | SIGNATURE: <u>Hidefumi Hiura</u>      | DATE: <u>22 December, 2005</u> |
| NAME: <u>Tetsuya TADA</u>       | SIGNATURE: <u>Tetsuya Tada</u>        | DATE: <u>22 December, 2005</u> |
| NAME: <u>Toshihiko KANAYAMA</u> | SIGNATURE: <u>Toshihiko Kanayama</u>  | DATE: <u>22 December, 2005</u> |
| NAME: _____                     | SIGNATURE: _____   | DATE: _____                    |

**NAME AND SIGNATURE OF WITNESSES**

|                              |                                   |                                |
|------------------------------|-----------------------------------|--------------------------------|
| NAME: <u>Masato KIMURA</u>   | SIGNATURE: <u>Masato Kimura</u>   | DATE: <u>22 December, 2005</u> |
| NAME: <u>Masako IGARASHI</u> | SIGNATURE: <u>Masako Igarashi</u> | DATE: <u>22 December, 2005</u> |

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