

6128104  
Customer No. 00270

06-30-2004



Form PTO-1595  
(Rev. 10/02)

RECORDATIC  
PATENT

102780838

DEPARTMENT OF COMMERCE  
Patent and Trademark Office

OMB No. 0651-0027 (exp. 6/30/2005)

Tab settings

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Akihiro Aiba, et al.  
Takeo Okabe  
Junnosuke Sekiguchi

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

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

Execution Date: 1-30-2004

2. Name and address of receiving party(ies)

Name: Nikko Materials Company, Limited

Internal Address:

Street Address: 10-1 Toranomom 2-chome

City: Minato-ku Tokyo State: Zip: 105-0001

Additional name(s) & address(es) attached? ☐ Yes ☒ No

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

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

A. Patent Application No.(s) 10/486,078

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

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

Name: William Bak

Internal Address:

Street Address: Spring House Corporate Ctr.

321 Norristown Rd., Box 457

City: Spring House State: PA Zip: 19477

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41).....\$ 40.00

☒ Enclosed

☐ Authorized to be charged to deposit account

8. Deposit account number:

DO NOT USE THIS SPACE

9. Signature.

William Bak

Name of Person Signing

Signature

June 24, 2004

Date

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

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents & Trademarks, Box Assignments  
Washington, D.C. 20231

06/29/2004 LNWELLER 00000025 10486078

01 FC:0021

40.00 CP

PATENT  
REEL: 015502 FRAME: 0784

## ASSIGNMENT

WHEREAS, Akihiro Aiba, Takeo Okabe and Junnosuke Sekiguchi, hereinafter referred to as ASSIGNORS, have invented and are the owners of an invention entitled **COPPER ELECTROPLATING METHOD, PURE COPPER ANODE FOR COPPER ELECTROPLATING, AND SEMICONDUCTOR WAFER PLATED THEREBY WITH LITTLE PARTICLE ADHESION**, said invention being fully set forth and described in the application for Letters Patent of the United States which has been prepared in connection with said invention, and which has been signed by ASSIGNORS; and

WHEREAS, **NIKKO MATERIALS COMPANY, LIMITED**, a Japanese corporation engaged in business at 10-1, Toranomom 2-chome, Minato-ku, Tokyo, 105-8407 Japan, hereinafter referred to as ASSIGNEE, is desirous of acquiring the said invention and any and all applications for Letters Patent and any and all Letters Patent of the United States and foreign countries which may be issued therefor;

NOW THEREFORE, THIS IS TO WITNESS, that in consideration of the sum of One Dollar (\$1.00) paid to ASSIGNORS by ASSIGNEE, the receipt of which is hereby acknowledged, and for other good and valuable consideration, ASSIGNORS have sold, assigned and set over, and hereby does sell, assign and set over, unto ASSIGNEE, its successors and assigns, the entire right, title and interest for, to and within the United States and all foreign countries, in and to the aforesaid invention and in and to any and all application for Letters Patent and Letters Patent which may be issued therefor in the United States and in any and all foreign countries.

And ASSIGNORS hereby authorize and request the Commissioner of Patent and Trademarks to issue any and all Letters patent of the United States to ASSIGNEE, its successors and assigns, as the owner of all right, title and interest therein.

And for said consideration, it is hereby covenanted and agreed that at the request and expense of ASSIGNEE, its successors and assigns, ASSIGNORS will execute any further papers and do such other acts and things as may be necessary and proper to procure Letters Patent for said invention in the United States and in such foreign countries as ASSIGNEE, its successors and assigns may elect, and vest the full title thereto in ASSIGNEE, its successors and assigns.

And ASSIGNORS hereby authorize and direct its attorneys to insert, in the space provided below, the serial number and filing date of the aforesaid application for Letters Patent of the United States when the same shall have been made known to them by the United States Patent and Trademark Office.

IN WITNESS WHEREOF, this Assignment has been executed by us on the dates accompanying our signatures.

Akihiro Aiba 30 Jan. 2004  
Akihiro Aiba (Date)

Takeo Okabe 30 Jan. 2004  
Takeo Okabe (Date)

Junnosuke Sekiguchi 30 Jan. 2004  
Junnosuke Sekiguchi (Date)

Application for United States Letters patent Serial Number 10/486,078  
filed February 6, 2004

Howson & Howson  
HOWSON AND HOWSON

**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

Application Number	10/486,078
Filing Date	February 6, 2004
First Named Inventor	Akihiro Aiba, et al.
Art Unit	1762
Examiner Name	
Attorney Docket Number	OGOSHI4USA

Total Number of Pages in This Submission


5

**ENCLOSURES**

(Check all that apply)

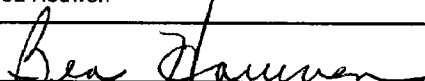
- |  |   |   |
|--|---|---|
| <input checked="" type="checkbox"/> Fee Transmittal Form                     | <input type="checkbox"/> Drawing(s)   | <input type="checkbox"/> After Allowance communication to Technology Center (TC)        |
| <input checked="" type="checkbox"/> Fee Attached                             | <input type="checkbox"/> Licensing-related Papers                                       | <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences     |
| <input type="checkbox"/> Amendment/Reply                                     | <input type="checkbox"/> Petition   | <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) |
| <input type="checkbox"/> After Final   | <input type="checkbox"/> Petition to Convert to a Provisional Application               | <input type="checkbox"/> Proprietary Information  |
| <input type="checkbox"/> Affidavits/declaration(s)                           | <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address | <input type="checkbox"/> Status Letter  |
| <input type="checkbox"/> Extension of Time Request                           | <input type="checkbox"/> Terminal Disclaimer  | <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):         |
| <input type="checkbox"/> Express Abandonment Request                         | <input type="checkbox"/> Request for Refund   | 3 pp. Assignment  |
| <input type="checkbox"/> Information Disclosure Statement                    | <input type="checkbox"/> CD, Number of CD(s) _____                                      |   |
| <input type="checkbox"/> Certified Copy of Priority Document(s)              | <input type="checkbox"/> Remarks  |   |
| <input type="checkbox"/> Response to Missing Parts/Incomplete Application    |   |   |
| <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 |   |   |

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm or Individual name	William Bak Howson and Howson
Signature	
Date	June 24, 2004

**CERTIFICATE OF TRANSMISSION/MAILING**

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Bea Houwen		
Signature		Date	June 24, 2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**FEE TRANSMITTAL**  
**for FY 2004**

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT**

(\$ 40.00)

**Complete if Known**

Application Number	10/486,078
Filing Date	February 6, 2004
First Named Inventor	Akihiro Aiba, et al.
Examiner Name	
Art Unit	1762
Attorney Docket No.	OGOSHI4USA

**METHOD OF PAYMENT (check all that apply)**☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:Deposit Account Number  
08-3040Deposit Account Name  
Howson and Howson

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 770	2001 385	Utility filing fee	
1002 340	2002 170	Design filing fee	
1003 530	2003 265	Plant filing fee	
1004 770	2004 385	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	
<b>SUBTOTAL (1)</b>			<b>(\$ 0.00)</b>

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

Total Claims		-20** =		X		=	
Independent Claims		-3** =		X		=	
Multiple Dependent						=	

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1202 18	2202 9	Claims in excess of 20	
1201 86	2201 43	Independent claims in excess of 3	
1203 290	2203 145	Multiple dependent claim, if not paid	
1204 86	2204 43	** Reissue independent claims over original patent	
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent	
<b>SUBTOTAL (2)</b>			<b>(\$ 0.00)</b>

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Large Entity Small Entity

Fee Code (\$)	Fee Code (\$)	Fee Code (\$)	Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	1052 50	2052 25	Surcharge - late filing fee or oath	
1053 130	1053 130	1812 2,520	1812 2,520	Surcharge - late provisional filing fee or cover sheet	
1804 920*	1804 920*	1805 1,840*	1805 1,840*	Non-English specification	
1251 110	2251 55	1252 420	2252 210	For filing a request for <i>ex parte</i> reexamination	
1253 950	2253 475	1254 1,480	2254 740	Requesting publication of SIR prior to Examiner action	
1255 2,010	2255 1,005	1401 330	2401 165	Requesting publication of SIR after Examiner action	
1402 330	2402 165	1403 290	2403 145	Extension for reply within first month	
1451 1,510	1451 1,510	1452 110	2452 55	Extension for reply within second month	
1453 1,330	2453 665	1501 1,330	2501 665	Extension for reply within third month	
1502 480	2502 240	1503 640	2503 320	Extension for reply within fourth month	
1460 130	1460 130	1807 50	1807 50	Extension for reply within fifth month	
1806 180	1806 180	1809 770	2809 385	Notice of Appeal	
8021 40	8021 40	1810 770	2810 385	Filing a brief in support of an appeal	
1801 770	2801 385	1802 900	1802 900	Request for oral hearing	
1809 770	2809 385			Petition to institute a public use proceeding	
				Petition to revive - unavoidable	
				Petition to revive - unintentional	
				Utility issue fee (or reissue)	
				Design issue fee	
				Plant issue fee	
				Petitions to the Commissioner	
				Processing fee under 37 CFR 1.17(q)	
				Submission of Information Disclosure Stmt	
				Recording each patent assignment per property (times number of properties)	40.00
				Filing a submission after final rejection (37 CFR 1.129(a))	
				For each additional invention to be examined (37 CFR 1.129(b))	
				Request for Continued Examination (RCE)	
				Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

**SUBTOTAL (3)** (\$ 40.00)**SUBMITTED BY**

(Complete if applicable)

Name (Print/Type)	William Bak	Registration No. (Attorney/Agent)	37,277	Telephone	215-540-9216
Signature	<i>W. Bak</i>	Date	June 24, 2004		

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.

SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.