



05-18-2004
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To the Honorable Commissioner of Patents and Trademarks: Please Record the attached original documents or copy thereof.

1. Name of conveying party(ies):
Masaki Yanagisawa
5/12/04
Additional name of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies)
Name: Sumitomo Electric Industries, Ltd.
Internal Address: _____

3. Nature of conveyance:
 Assignment Merger
 Security Agreement Change of Name
 Other _____
Execution Date: April 22, 2004

Street Address: 5-33, Kitahama 4-chome,
Chuo-ku, Osaka-shi, Osaka 541-0041 JAPAN
City: _____ State: _____ Zip: _____
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)
10/738,114
B. Patent No.(s)

Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning this document should be mailed:
Name: Smith, Gambrell & Russell
Internal Address: _____
05/13/2004 SMINASS1 00000038 10738114
03 FC 8021 40.00 DP
Street Address: 1850 M Street, N.W.
Suite 800
City: Washington State: DC Zip: 20036

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 number:
02-4300
(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

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.
Michael A. Makuch [Signature] May 12, 2004
Name of Person Signing Signature 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

Assn 1/2

ASSIGNMENT

This assignment agreement is applicable to an invention entitled (Invention Title) _____
HETERO-JUNCTION BIPOLAR TRANSISTOR HAVING A TRANSITION LAYER BETWEEN THE BASE
AND THE COLLECTOR

The PATENT RIGHTS referred to in this agreement are:

- (check one) a patent application for this invention, executed by the ASSIGNOR(S) concurrently with this assignment.
 U.S. patent application Serial No. 10/738,114, filed December 18 2003.
 a U.S. patent application based on PCT International Application No. _____ filed on (date) _____ (U.S. patent application Serial No. _____, if known).
 U.S. patent No. _____, issued _____.

The PATENT RIGHTS also include all divisions, reissues, continuations and extensions of the patents and patent applications identified above.

The PATENT RIGHTS assigned under this agreement are:

- (check one) U.S. patent rights only.
 Worldwide patent rights. In this case, the assignee shall have the right to claim the benefit of the filing date of any U.S. or foreign patent application for this invention.

The ASSIGNOR(S) referred to in this agreement is (or are) the inventor(s) whose signatures appear on page 2 of this Assignment and any Supplemental Sheet(s).

The ASSIGNEE referred to in this agreement is:

(Name of Assignee) Sumitomo Electric Industries, Ltd.
(Address) 5-33, Kitahama 4-chome, Chuo-ku, Osaka-shi, Osaka 541-0041 Japan

The ASSIGNEE is:

- (check one) An Individual.
 A Partnership
 A Corporation of Japan (specify state or country)
 (other)

The ASSIGNOR(S), in consideration of \$10.00 paid by the ASSIGNEE, and other good and valuable consideration, receipt of which is acknowledged, hereby assign(s) the following rights to the ASSIGNEE, its successors and assigns:

- the full and exclusive right to the invention;
- the entire right, title and interest in and to the PATENT RIGHTS;
- the right to sue and recover for any past infringement; and,
- the right to claim priority under 35 USC 119, 35 USC 120, or any other applicable provisions, based on any earlier patent applications for this invention.

THIS IS PAGE 2 OF AN ASSIGNMENT FROM THE INVENTOR(S) TO

ASSIGNEE: Sumitomo Electric Industries, Ltd.

INVENTION TITLE: HETERO-JUNCTION BIPOLAR TRANSISTOR HAVING A TRANSITION LAYER BETWEEN THE BASE AND THE COLLECTOR

As to all U.S. patent applications assigned under this agreement, the ASSIGNOR(S) hereby authorize(s) and request(s) the Commissioner of Patents and Trademarks to issue all Letters Patent to the ASSIGNEE as the assignee of the entire right, title and interest, for the sole use and enjoyment of said ASSIGNEE, its successors and assigns.

Further, the ASSIGNOR(S) agree(s) to communicate to said ASSIGNEE, or its representatives, any facts known to the ASSIGNOR(S) respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause any and all Letters Patent to be issued to said ASSIGNEE, make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention.

The ASSIGNORS authorize any attorneys and agents who have a power of attorney in this application to check any appropriate boxes and to insert the Serial Number and filing date in this document after it has been executed.

Masaki YANAGISAWA
Name of sole or first inventor

Masaki Yanagisawa
Signature

April, 22, 2004
Date

Name of second inventor, if any

Signature

Date

Name of third inventor, if any

Signature

Date

Name of fourth inventor, if any

Signature

Date

Name of fifth inventor, if any

Signature

Date

Name of sixth inventor, if any

Signature

Date

Name of seventh inventor, if any

Signature

Date

Name of eighth inventor, if any

Signature

Date

Name of ninth inventor, if any

Signature

Date