

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Yukio TAMAI	11/25/2008
Yasunari HOSOI	11/25/2008
Nobuyoshi AWAYA	11/26/2008
Shigeo OHNISHI	11/25/2008
Kazuya ISHIHARA	11/25/2008
Hisashi SHIMA	11/27/2008
Fumiyoshi TAKANO	11/27/2008
Hiroyuki AKINAGA	11/27/2008

RECEIVING PARTY DATA

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Street Address:	22-22, Nagaike-cho Abeno-ku
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State/Country:	JAPAN
Postal Code:	545-8522

Name:	National Institute of Advanced Industrial Science and Technology
Street Address:	3-1, Kasumigaseki 1-chome, Chiyoda-ku
City:	Tokyo
State/Country:	JAPAN
Postal Code:	100-8921

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12328648

CORRESPONDENCE DATA

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CH \$40.00 12328648

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NAME OF SUBMITTER:	MICHAEL R. CAMMARATA
Total Attachments: 4 source=assignment20081204#page1.tif source=assignment20081204#page2.tif source=assignment20081204#page3.tif source=assignment20081204#page4.tif	

BIRCH, STEWART, KOLASCH & BIRCH, LLP

UNITED STATES PATENT RIGHTS, OR
UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

ASSIGNMENT

Application No. 12328648

Filed 12/4/08

Insert Name(s)
of Inventor(s)

****(Given Name FAMILY NAME (ALL CAPS))****

WHEREAS,	Yukio TAMAI	;	Yasunari HOSOI
Nobuyoshi AWAYA	Shigeo OHNISHI		Kazuya ISHIHARA
_____	_____		_____
_____	_____		_____
_____	_____		_____
_____	_____		_____

Insert Title
of Invention

(hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in

VARIABLE RESISTANCE ELEMENT, METHOD FOR PRODUCING THE SAME, AND NONVOLATILE SEMICONDUCTOR STORAGE DEVICE

for which an application for Letters Patent of the United States of America has been executed by the undersigned (except in the case of a provisional application).

Insert Date
of Signing of
Application

on November 25, 2008, November 26, 2008; and

Insert Name
of Assignee

(1) SHARP KABUSHIKI KAISHA

WHEREAS, (2) National Institute of Advanced Industrial Science and Technology

Insert Address
of Assignee

(1) 22-22, Nagaïke-cho Abeno-ku Osaka-shi Osaka 545-8522 Japan

of (2) 3-1, Kasumigaseki 1-chome, Chiyoda-ku, Tokyo 100-8921 Japan

its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and

CHECK BOX
IF APPROPRIATE

in any foreign countries.

NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the undersigned has (have) sold, assigned and transferred, and by these presents does sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries;

and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree (s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the 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 of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the 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 law firm of Birch, Stewart, Kolasch & Birch, LLP 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 U.S. Patent and Trademark Office for recordation of this document.

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

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

Date <u>November 25, 2008</u>	Name of Inventor <u><i>Yukio Tamai</i></u> (signature) Yukio TAMAI
Date <u>November 25, 2008</u>	Name of Inventor <u><i>Yasunari Hosoi</i></u> (signature) Yasunari HOSOI
Date <u>November 26, 2008</u>	Name of Inventor <u><i>Nobuyoshi Awaya</i></u> (signature) Nobuyoshi AWAYA
Date <u>November 25, 2008</u>	Name of Inventor <u><i>Shigeo Ohnishi</i></u> (signature) Shigeo OHNISHI
Date <u>November 25, 2008</u>	Name of Inventor <u><i>Kazuya Ishihara</i></u> (signature) Kazuya ISHIHARA
Date _____	Name of Inventor _____ (signature)

BIRCH, STEWART, KOLASCH & BIRCH, LLP

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Insert Name(s)
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WHEREAS, Hisashi SHIMA ; Fumiyoshi TAKANO
Hiroyuki AKINAGA

Insert Title
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WHEREAS, (2) National Institute of Advanced Industrial Science and Technology

Insert Address
of Assignee

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of (2) 3-1, Kasumigasaki 1-chome, Chiyoda-ku, Tokyo 100-8921 Japan

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IF APPROPRIATE

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

Date November 27, 2008 Name of Inventor Hisashi SHIMA
(signature) Hisashi SHIMA

Date November 27, 2008 Name of Inventor Fumiyoshi Takano
(signature) Fumiyoshi TAKANO

Date November 27, 2008 Name of Inventor Hiroyuki AKINAGA
(signature) Hiroyuki AKINAGA

Date _____ Name of Inventor _____
(signature)

Date _____ Name of Inventor _____
(signature)

Date _____ Name of Inventor _____
(signature)