12-30-2003 RECC J.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office Docket No. 740756-2690 To the Honorable Commissioner of Pater documents or copy thereof. 102634568 and address of receiving party: 1. Name of conveying party: (1) Hideto OHNUMA Name: Semiconductor Energy Laboratory Co., Ltd. (2) Yukie NEMOTO Street Address: 398, Hase, City: Atsugi-shi _State: Kanagawa-ken Zip: Additional name(s) of conveying party(ies) attached? ☐ Yes ☐ No Country: Japan Postal Code: 243-003 3. Nature of conveyance: ■ Assignment Merger Security Agreement ☐ Change of Name ☐ Other Execution Date(s): 1st Inventor: November 28, 2003 2nd Inventor: December 12, 2003 4. Application number(s) or patent number(s); If this document is being filed together with a new application, the filing date of the application is: November 28, 2003 and December 12, 2003 Patent Application No.(s) B. Patent No.(s) Additional numbers attached?

Yes No 5. Name and address of party to whom correspondence 6. Total number of applications and patents involved: 1 concerning document should be mailed: 7. Total fee (37 CFR 3.41).....\$40.00 Attorney Name: <u>Jeffrey L. Costellia</u> ☐ Enclosed Firm Name: Nixon Peabody LLP Authorized to be charged to deposit account Internal Address: Suite 900 8. Deposit account number: Street Address: 401 Ninth Street, N.W. 19-2380 (740756-2690) City: Washington State: D.C. Zip: 20004 (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. Jeffrey L. Costellia December 19, 2003 Name of Person Signing Date

Mail documents to be recorded with required cover sheet information to: Mail Stop Assignment Recordation Services, Director of the US Patent and Trademark Office, P. O. Box 1450, Alexandria, VA 22313-1450

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

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PATENT

REEL: 014821 FRAME: 0259

NIXON PEABODY LLP

United States Patent Rights

	Audilley Docket No
ASSIGNMENT	
Serial No	Filed
WHEREAS, Hideto OHNUMA and Yukie NEMOTO	
hereinafter designated as the undersigned) has (have) invented certain new and useful	
mprovements in FIELD EMISSION DEVICE AND MANUFACTURING METHOD	
THEREOF for which an application for Letters Patent of the United States of America has been	
executed by the undersigned on	and;

WHEREAS, Semiconductor Energy Laboratory Co., Ltd. of 398, Hase, Atsugi-shi, Kanagawa-ken 243-0036 Japan and 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;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) 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 do sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America and its territories and for all foreign countries, 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 and its territories, dependencies and possessions, and in and to any and all divisions, reissues, continuations 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 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 any continuation, division or reissue thereof or Letters 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 under 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

PATENT REEL: 014821 FRAME: 0260 obtain a grant of a valid United States 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 Commissioner of Patents and Trademarks to issue any and all Letters Patents of the United States of America resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby convenants 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 Nixon Peabody 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.

In witness thereof, this Assignment has been executed by the undersigned on the date(s) opposite the undersigned name(s).

Date 1/28/2003	Name of Inventor Hiders Uhnuma (SEAL) Hideto OHNUMA	
Date 12/12/2003	Name of Inventor Yukie NEMOTO (SEAL)	
Date	, Name of Inventor————(SEAL)	
Date	, Name of Inventor (SEAL)	
(This assignment should preferably be acknowledged before a United States Consul or Notary Public. If not, then the execution by the Inventor(s) should be witnessed by at least two other persons who should sign here.)		
Witness (na	ne) (signature)	

(signature)

(signature)

(name)

(name)

RECORDED: 12/19/2003

Witness

PATENT REEL: 014821 FRAME: 0261