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1. Name of conveying party(ies): Masayuki SAKAKURA, Yasuyuki ARAI and Shunpei YAMAZAKI

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

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

Name: Semiconductor Energy Laboratory Co., Ltd.

Street Address: 398, Hase, Atsugi-shi

City Kanagawa-ken State Japan ZIP 243-0036

Additional name(s) & addresses(es) attached? Yes X No

3. Name of Conveyance:

## X Assignment

## Merger

## Security Agreement

Change of Name

Other

Execution Date: March 12, 1999, February 15, 1999 and February 17, 1999

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: \_\_\_\_\_

Title: PHOTOELECTRIC CONVERSION DEVICE AND PROCESS FOR PRODUCING PHOTO ELECTRIC CONVERSION DEVICE

A: Patent Application No. 09/219,722

B. Patent No.(s)

Additional numbers attached?    Yes X No

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

Name: Sixbey, Friedman, Leedom & Ferguson, P.C.

Street Address: 8180 Greensboro Drive, Suite 800

City: McLean State: Virginia ZIP 22102

6. Total number of applications and patents involved: 1

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

X    Enclosed

Authorized to be charged to deposit account

X Authorized to charge any deficiency in the payment of the required fee(s) or credit any overpayment to Deposit Account No. 19-2380.

8. Deposit Account Number: 19-2380

(Attach duplicate copy of this page if paying by deposit account)

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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.*

Eric J. Robinson

Name of Person Signing

Signature

3-25-99

Date \_\_\_\_\_

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

**PATENT**  
**REEL: 9872 FRAME: 0375**

## ASSIGNMENT

Serial No. 09/219,722

Filed December 23, 1998

WHEREAS, Masayuki SAKAKURA,

Yasuyuki ARAI and

Insert Name(s)  
of Inventor(s)

Shunpei YAMAZAKI

Insert Title of  
Invention

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

PHOTOELECTRIC CONVERSION DEVICE AND PROCESS FOR

PRODUCING PHOTOELECTRIC CONVERSION DEVICE

Insert Date of  
Signing of  
Application

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.

Insert Name of  
Assignee

Insert Address  
of Assignee

of 398, Hase, Atsugi-shi, Kanagawa-ken 243-0036 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;

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, 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 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 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 Sixbey, Friedman, Leedom & Ferguson, P.C. 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 whereof, this Assignment has been executed by the undersigned on the date(s) opposite the undersigned name(s).

Date 03/12/1999, Name of Inventor Masayuki Sakakura (SEAL)  
Masayuki SAKAKURA (signature)  
Date 02/18/1999, Name of Inventor Yasuyuki Arai (SEAL)  
Yasuyuki ARAI (signature)  
Date 02/12/99, Name of Inventor Shunpei Yamazaki (SEAL)  
Shunpei YAMAZAKI (signature)  
Date \_\_\_\_\_, Name of Inventor \_\_\_\_\_ (SEAL)  
\_\_\_\_\_  
(signature)  
Date \_\_\_\_\_, Name of Inventor \_\_\_\_\_ (SEAL)  
\_\_\_\_\_  
(signature)

(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 \_\_\_\_\_ (name) \_\_\_\_\_ (signature)  
Witness \_\_\_\_\_ (name) \_\_\_\_\_ (signature)  
Witness \_\_\_\_\_ (name) \_\_\_\_\_ (signature)