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U.S. DEPARTMENT OF COMMERCE

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Patent and Trademark Office
Docket No. 474082002000

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

1. Name of conveying party(ies):

- 1. Takayuki KUBO
- 2. Fumio KAWAHIGASHI
- 3. Hiroshi ASANO
- 4. Naohiro TAKAOKA

- Individual(s) Association
- General Partnership Limited Partnership
- Corporation-State Other

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

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

Name: **SUMITOMO MITSUBISHI SILICON CORPORATION**
Address: 2-1 Shibaura 1-chome, Minato-ku
Tokyo, Japan 105-0023

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

MPID 10-15-02

3. Nature of conveyance:

- Assignment Merger
- Security Agreement Change of Name
- Other:

Execution Date: 1. August 26, 2002; 2. August 26, 2002; 3. August 28, 2002; 4. September 5, 2002.

4. Application number(s) or patent number(s): 10/149,223

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

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

Kevin R. Spivak
Morrison & Foerster LLP
1650 Tysons Boulevard
Suite 300
McLean, Virginia 22102

6. Total number of applications and patents involved: 1

7. Total fee (37 C.F.R. § 3.41): \$40.00

Authorized to be charged to deposit account, transmittal form is attached to this submission in duplicate or fee processing: Attorney Docket 474082002000

8. Deposit account number: 03-1952

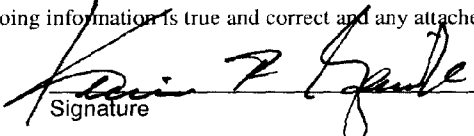
The Commissioner is hereby authorized to charge any fees under 37 C.F.R. § 1.21 that may be required by this paper, or to credit any overpayment to Deposit Account No. 03-1952.

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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.

Name: Kevin R. Spivak
Registration No: 43,148


Signature 10/15/02
Date

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

Mail documents to be recorded with required cover sheet information to:
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PATENT
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MORRISON & FOERSTER LLP

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned hereby assign(s), transfer(s) and set(s) over to:

**SUMITOMO MITSUBISHI SILICON CORPORATION
2-1, SHIBAURA 1-CHOME
MINATO-KU, TOKYO
105-0023 JAPAN**

(hereinafter designated as the "ASSIGNEE"), its successors and assigns, the entire right, title, and interest for the United States in the invention, and all applications for patent and any Letters Patent which may be granted therefor, including said application, and all United States Letters Patent which may be granted thereof, and all divisions, reissues, continuations and extensions thereof, the said interest being the entire ownership of said Letters Patent when granted to be held by said ASSIGNEE, its successors, assigns or their legal representatives, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been and enjoyed by Assignor(s) if this assignment had not been made, the application being known by the title:

APPARATUS FOR GROWING CRYSTAL

Attorney Docket No.: 474082002000

for which the undersigned has/have executed an application for patent in the United States of America on the same day herewith. Where this instrument is not filed concurrently with the application, the following identifying information may be added after execution:

Serial No.: 10/149,223

Filing Date: June 10, 2002

1. The undersigned hereby agree(s) to sign and execute any further documents and instruments which may be necessary, lawful and proper in the prosecution of said above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reexamination or reissue application or in any amendments, extension of interference proceedings, or otherwise to secure the title thereto to the ASSIGNEE.

2. The undersigned agree(s) to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property of similar agreements.

3. The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the ASSIGNEE.

4. The undersigned hereby authorize(s) and request(s) the Commissioner of Patents in the United States to issue any and all Letters Patent resulting from said application or any division or divisions or continuing applications thereof to the said ASSIGNEE.

5. The undersigned hereby grant(s) to the firm of Morrison & Foerster 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 United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREBY, executed by the undersigned on the date(s) opposite the undersigned name(s).

Aug. 26, 2002
Date

Takayuki Kubo
Typed Name: Takayuki KUBO

Aug, 26, 2002
Date

Fumio Kawahigashi
Typed Name: Fumio KAWAHIGASHI

Aug, 29, 2002
Date

Hiroshi Asano
Typed Name: Hiroshi ASANO

Sept. 5, 2002
Date

Naohiro Takaoaka
Typed Name: Naohiro TAKAOKA

This assignment may be signed before a U.S. Notary Public or before at least two witnesses who also sign here:

Sept. 10, 2002
Date

Shin, Miki
Typed Name:

Sept 10, 2002
Date

Hiroki Murakami
Typed Name: