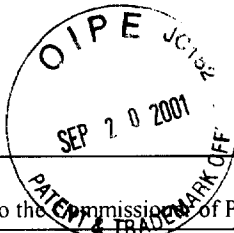


09-26-2001

U.S. DEPARTMENT OF COMMERCE



101854632

SHEET

Patent and Trademark Office  
Docket No. 474082001200

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

1. Name of conveying party(ies):  
1. Masahiko MIZUTA 2. Tokuji MAEDA 3. Masato TABUCHI

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

09/20/01

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

SUMITOMO METAL INDUSTRIES, INC.  
5-33, Kitahama 4-chome, Chuo-ku, Osaka-shi  
Osaka 541-0041 Japan

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

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

3. Nature of conveyance:

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

Execution Date: July 26, 2001, July 30,2001, July 26,2001

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)  
09/864,936

B. Patent No.(s)

Additional numbers attached?  Yes  No

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

Kevin R. Spivak  
Morrison & Foerster LLP  
2000 Pennsylvania Avenue, N.W.  
Washington, D.C. 20006-1888

6. Total number of applications and patents involved: 1

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

Enclosed

Authorized to be charged to deposit account. Transmittal form is attached to this submission in duplicate (for fee processing).

8. Deposit account number: 03-1952 (Ref. 474082001200)

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.

**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.

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

September 20, 2001  
Date

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

09/25/2001 DBYRME 00000092 031952 09864936

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dc-280103

**PATENT**  
**REEL: 012185 FRAME: 0633**

**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 METAL INDUSTRIES, LTD.  
5-33, KITAHAMA 4-CHOME  
CHUO-KU, OSAKA-SHI  
OSAKA 541-0041 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:

**METHOD FOR PRODUCING SINGLE CRYSTAL**

Attorney Docket No.: 474082001200

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.: 09/864,936

Filing Date: May 25, 2001

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).

July 26, 2001  
Date

Masahiko Mizuta  
Typed Name: Masahiko MIZUTA

July 30, 2001  
Date

Tokuji Maeda  
Typed Name: Tokuji MAEDA

July 26, 2001  
Date

Masato Tabuchi  
Typed Name: Masato TABUCHI

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

July 30, 2001  
Date

Katsunori Nakashima  
Typed Name: KATSUNORI NAKASHIMA

July - 30, 2001  
Date

Koji Kato  
Typed Name: KOJI KATO