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

1. Name of conveying party(ies):
   1. Yoshio KATSURO
   2. Nasaru SHIMOYAMA
   3. Hiroshi MAEDA
   4. Shoji OISHI

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

3. Nature of Conveyance:
   ■ Assignment
   □ Security Agreement
   □ Change of Name
   □ Other

   Execution Date: October 22, 1997 and October 23, 1997

   Additional name(s) and address(es) attached? □ Yes ■ No

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)
      08/945,318

   Additional numbers attached? □ Yes ■ No

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

   OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C.
   Attorneys at Law
   Fourth Floor
   1755 Jefferson Davis Highway
   Arlington, Virginia 22202

6. Total applications and patents involved:

7. Total fee (37 CFR 3.41):
   □ Enclosed
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8. Deposit account number: 15-0030
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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.

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Assignment Of Application

WHEREAS, I (WE) 1) Yoshio Katsuro, 2) Masaru Shimoyama, 3) Hiroshi Maeda and 4) Shoji Oishi

1) and 2) of c/o Mitsubishi Chemical Corporation
Kurosaki Development Center
1-1 Kurosaki Shiroishi, Yahata Nishi-ku,
Kitakyushu-shi, Fukuoka-ken, 606 Japan

4) of c/o Mitsubishi Chemical Corporation
Kurosaki Plant
1-1 Kurosaki Shiroishi, Yahata Nishi-ku,
Kitakyushu-shi, Fukuoka-ken, 606 Japan and

3) of c/o Mitsubishi Chemical Corporation Kashima Plant
14, Sunayama Hasaki-machi, Kashima-gun, Ibaraki-ken, 314-02 Japan

have invented certain new and useful improvements in: PROCESS FOR PRODUCING A SYNTHETIC QUARTZ POWDER AND PROCESS FOR PRODUCING A SHAPED PRODUCT OF QUARTZ CLASS

for which an application for Letters Patent was executed on October 22 and 23, 1997
(Application No. 08/945,318, filed November 26, 1997), and

WHEREAS, Mitsubishi Chemical Corporation

(hereinafter referred to as "ASSIGNEE") having a place of business at: 5-2, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100 Japan

is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS ($5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.
I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behalf of said ASSIGNEE, its (his) successors and assigns, 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 held by me (us) had this Assignment and sale not been made.

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, P.C. of Fourth Floor, 1755 Jefferson Davis Highway, Arlington, Virginia 22202 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recording of this document.

| Date:       | Oct. 22, 1997                      |
| Date:       | Oct. 23, 1997                      |
| Date:       | Oct. 23, 1997                      |

(Signature of Inventor) Yoshio Katsuro
(Signature of Inventor) Masaru Shimoyama
(Signature of Inventor) Hiroshi Maeda
(Signature of Inventor) Shoji Oishi

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RECORDED: 05/18/2000
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