

3/10/06

03-23-2006

10/571507

Client Code: WAKAB97.001APC



10/571507
10 MAR 2006

To the Director, U.S. Patent and T

103203829

shed original documents or copy thereof.

<p>1. Name of conveying party(ies): (List using letters or numbers for multiple parties)</p> <p>1. Daisuke ITOH 2. Akihito IZUMITANI 3. Noriaki HATA 4. Yorishige MATSUBA 5. Kazuhiro MURATA 6. Hiroshi YOKOYAMA</p> <p>Additional name(s) of conveying party(ies) attached? () Yes (X) No</p>	<p>2. Name and address of receiving party(ies):</p> <p>Name: (1) NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY Address: (1) 3-1, Kasumigaseki 1-chome, Chiyoda-ku, Tokyo 100-8921 Japan</p> <p>Name: (2) HARIMA CHEMICALS, INC. Address: (2) 671-4, Mizuashi, Noguchicho, Kakogwa-shi, Hyogo 657-0019 Japan</p> <p>Additional name(s) of receiving party(ies) attached? () Yes (X) No</p>
<p>3. Nature of conveyance:</p> <p>(X) Assignment () Security Agreement () Merger () Change of Name () Other:</p> <p>Execution Date: (List as in section 1 if multiple signatures)</p> <p>1. 3/02/06 2. 3/02/06 3. 3/02/06 4. 3/02/06 5. 3/17/06 6. 3/22/06</p>	<p>4. US or PCT Application number(s) or US Patent number(s):</p> <p>(X) Application filed herewith</p> <p>Additional numbers attached? () Yes (X) No</p>
<p>5. Party to whom correspondence concerning document should be mailed:</p> <p>Customer No. 20,995 Address: Knobbe, Martens, Olson & Bear, LLP 2040 Main Street, 14th Floor Irvine, CA 92614 Return Fax: (949) 760-9502 Attorney's Docket No.: WAKAB97.001APC</p>	<p>6. Total number of applications and patents involved: 1</p> <p>10/571507</p>
<p>7. Total fee (37 CFR 1.21(h)): \$40.00</p> <p>(X) Enclosed</p>	<p>8. Deposit account number: 11-1410</p> <p>Please charge this account for any additional fees which may be required, or credit any overpayment to this account.</p>
<p>9. Statement and signature.</p> <p>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.</p> <p><u>Katsuhiro Arai</u> Name of Person Signing</p> <p><u>43,315</u> Registration No.</p> <p><u>[Signature]</u> Signature</p> <p><u>March 10, 2006</u> Date</p> <p>Total number of pages including cover sheet, attachments and document: 3</p>	

Documents transmitted via Mail to be recorded with required cover sheet information to:

Mail Stop Assignment Recordation Services

Director, U.S. Patent and Trademark Office

P.O. Box 1450

Alexandria, VA 22313-1450

03/17/2006 GFREY1 00000039 10571507

04 FC:8021

40.00 DP

2427014
030806

PATENT
REEL: 017698 FRAME: 0003

ASSIGNMENT

WHEREAS, I/WE (1) Daisuke ITOH,

a Japanese citizen, residing at c/o Tsukuba Research Laboratory, Harima Chemicals, Inc., 9-3, Tokodai 5-chome, Tsukuba-shi, Ibaraki 300-2635 Japan

(2) Akihito IZUMITANI,

a Japanese citizen, residing at c/o Tsukuba Research Laboratory, Harima Chemicals, Inc., 9-3, Tokodai 5-chome, Tsukuba-shi, Ibaraki 300-2635 Japan

(3) Noriaki HATA,

a Japanese citizen, residing at c/o Tsukuba Research Laboratory, Harima Chemicals, Inc., 9-3, Tokodai 5-chome, Tsukuba-shi, Ibaraki 300-2635 Japan

(4) Yorishige MATSUBA,

a Japanese citizen, residing at c/o Tsukuba Research Laboratory, Harima Chemicals, Inc., 9-3, Tokodai 5-chome, Tsukuba-shi, Ibaraki 300-2635 Japan

(5) Kazuhiro MURATA,

a Japanese citizen, residing at c/o National Institute of Advanced Industrial Science and Technology, Tsukuba Central 5, 1-1, Higashi 1-chome, Tsukuba-shi, Ibaraki 305-8565 Japan,

(6) Hiroshi YOKOYAMA,

a Japanese citizen, residing at c/o National Institute of Advanced Industrial Science and Technology, Tsukuba Central 2, 1-1, Umezono 1-chome, Tsukuba-shi, Ibaraki 305-8568 Japan,

hereinafter referred to as Assignor (collectively if more than one inventor is listed above), have invented certain new and useful improvements in METAL NANOPARTICLE DISPERSION USABLE FOR EJECTION IN THE FORM OF FINE DROPLETS TO BE APPLIED IN THE LAYERED SHAPE

the specification of which:

(a) ☐ is attached hereto; or

(b) ☐ was filed on _____ as
Application No. _____ or Express Mail No., as
Application No. not yet known _____
and was amended on _____ (if applicable); or

(c) ☒ was described and claimed in PCT International Application No.

PCT/JP2004/013229 filed on September 10, 2004

and as amended under PCT Article 19 on _____

(if any) and/or under PCT Article 34 on _____ (if any).

AND WHEREAS, NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND

TECHNOLOGY with its principal place of business at 3-1, Kasumigaseki 1-chome, Chiyoda-ku,
Tokyo 100-8921 Japan, and HARIMA CHEMICALS, INC., with its principal place of business at
671-4, Mizuashi, Noguchicho, Kakogawa-shi, Hyogo 657-0019 Japan

(hereinafter referred to as Assignees) desire to acquire the entire right, title, and interest in and to the said improvements with respect to the United States of America, its territories and possessions.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor hereby acknowledges that it has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title, and interest in the United States of America, and its territories and possessions in, to and under said improvements, and any Patent Applications in the United States of America and all divisions, renewals and continuations thereof, and all Patents of the United States of America which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions; and Assignor hereby authorizes and requests the Commissioner of Patents of the United States of America to issue all Patents for said improvements to Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND ASSIGNOR HEREBY covenants and agrees that it will communicate to Assignee, its successors, legal representatives and assigns, any facts known to it respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said improvements in the United States of America.

IN TESTIMONY WHEREOF, Assignor intending to be legally bound has hereunto affixed its signature.

This 2nd day of March, 2006 Daisuke Itoh
Signature of Daisuke ITOH

This 2nd day of March, 2006 Akihito Izumitani
Signature of Akihito IZUMITANI

This 2nd day of March, 2006 Noriaki Hata
Signature of Noriaki HATA

This 2nd day of March, 2006 Yorishige Matsuba
Signature of Yorishige MATSUBA

This 17 day of March, 2005 Kazuhiro Murata
Signature of Kazuhiro MURATA

This 22 day of March, 2005 Hiroshi Yokoyama
Signature of Hiroshi YOKOYAMA

This _____ day of _____, 2005 _____
Signature of _____

PF-58