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Attorney's Docket No. 033413-004

To the Director of the United States Patent and Trademark Office: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies): 7.15.04 (1) Masaru TAKADA; (2) Hidemoto ARAI; (3) Youlchi SUGIYAMA; (4) Hisao YOKOYA; (5) Kenzo TAKAHASHI; (6) Junji HARADA; and (7) Masayuki TSUBAKI

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

3. Nature of conveyance: [X] Assignment [ ] Merger [ ] Security Agreement [ ] Change of Name [ ] Other Execution Date: July 5, 2004

2. Name and address of receiving party(ies): (1) MITSUBISHI DENKI KABUSHIKI KAISHA; and Name: (2) MITSUBISHI PAPER MILLS LIMITED Internal Address: Street Address: (1) 2-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8310 Japan; and (2) 4-2, Marunouchi 3-chome, Chiyoda-ku, Tokyo 100-0005 Japan City: State: Zip: Additional name(s) & addresses attached?  Yes  No

3441 U.S. PTO 10/891016 071504

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: July 5, 2004

A. Patent Application No.(s) 10891016 Additional numbers attached?  Yes  No

B. Patent No.(s)

5. Name and address of party to whom correspondence concerning document should be mailed: Name: Platon N. Mandros Address: Burns, Doane, Swecker & Mathis, L.L.P. Customer Number 2 1 8 3 9 P.O. Box 1404 Alexandria, Virginia 22313-1404

6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 3.41).....\$ 40.00 [ ] Enclosed [X] Authorized to be charged to deposit account [X] Credit card. Form PTO-2038 is attached. 8. Deposit account number: 02-4800 (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. Platon N. Mandros, Reg. No. 22,124 July 15, 2004 Name of Person Signing Signature Date Total number of pages including cover sheet, attachments, and documents: 3

Mail documents to be recorded with required cover sheet information to: Director of the United States Patent and Trademark Office / Mail Stop Assignment Recordation Services P.O. Box 1450 / Alexandria, VA 22313-1450

07/2004 ADDRESS1 00000010 10891016

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# ASSIGNMENT

(SOLE)

THIS ASSIGNMENT, by (1) Masaru TAKADA (2) Hidemoto ARAI (3) Youichi SUGIYAMA  
(4) Hisao YOKOYA (5) Kenzo TAKAHASHI, residing at c/o MITSUBISHI DENKI KABUSHIKI KAISHA,  
2-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8310 Japan  
(6) Junji HARADA (7) Masayuki TSUBAKI, residing at c/o MITSUBISHI PAPER MILLS LIMITED, 4-2,  
Marunouchi 3-chome, Chiyoda-ku, Tokyo 100-0005 Japan

(hereinafter referred to as "the Assignor"), witnesseth:

WHEREAS, the Assignor has invented certain new and useful improvements in \_\_\_\_\_

TOTAL HEAT EXCHANGING ELEMENT

set forth in an application,

- (1)  which is a provisional application to be filed herewith; or
- (2)  which is a non-provisional application
  - (a)  having an oath or declaration executed on even date herewith prior to filing of application;
  - (b)  bearing Application No. \_\_\_\_\_, and filed on \_\_\_\_\_; or
  - (c)  to be filed; and

WHEREAS, (1) MITSUBISHI DENKI KABUSHIKI KAISHA, a corporation duly organized under and pursuant to the laws of Japan, and having its principal place of business at 2-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8310 Japan (2) MITSUBISHI PAPER MILLS LIMITED, a corporation duly organized under and pursuant to the laws of Japan, and having its principal place of business at 4-2, Marunouchi 3-chome, Chiyoda-ku, Tokyo 100-0005 Japan (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignor has sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said application, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made;

AND for the same consideration, the Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignor is the sole and lawful owner of the entire right, title,

and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns that the Assignor will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignor hereby authorizes and requests the attorneys of BURNS, DOANE, SWECKER & MATHIS, L.L.P. of Alexandria, Virginia to insert in the spaces provided above the filing date, application number, and attorney docket number of said application when known.

AND the Assignor hereby requests the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee, as the Assignee of said inventions and the Letters Patent to be issued thereon for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

Date	<u>July 5, 2004</u>	Signature of Assignor	<u>Masaru Takada</u> Masaru TAKADA
Date	<u>July 5, 2004</u>	Signature of Assignor	<u>Hidemoto Arai</u> Hidemoto ARAI
Date	<u>July 5, 2004</u>	Signature of Assignor	<u>Youichi Sugiyama</u> Youichi SUGIYAMA
Date	<u>July 5, 2004</u>	Signature of Assignor	<u>Hisao Yokoya</u> Hisao YOKOYA
Date	<u>July 5, 2004</u>	Signature of Assignor	<u>Kenzo Takahashi</u> Kenzo. TAKAHASHI
Date	<u>July 5, 2004</u>	Signature of Assignor	<u>[Signature]</u> Junji HARADA
Date	<u>July 5, 2004</u>	Signature of Assignor	<u>Masayuki Tsubaki</u> Masayuki TSUBAKI