11-05-2002 FORM PTO-1595 (modified) U.S. DEPARTMENT OF COMMERCE REC: (Rev 6-93) HEET Patent and Trademark Office To the Director of the United States Patent and Trademark Office: Please record the attached original documents or copies thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies): Satoshi MOTOUJI (September 13, 2002) Iichi HIRAO (September 13, 2002) Teruyuki HAYASHI (September 18, 2002) OMRON CORPORATION 801, Minamifudodo-cho, Horikawahigashiiru, Misako SAITO (September 18, 2002) Shiokoji-dori, Shimogyo-ku Kyoto-shi, Kyoto 600-8530 Japan and OCT 3 D 2002 TOKYO ELECTRON LTD 3-6, Akasaka 5-chome Minato-ku, Tokyo 107-8481 Japan Additional conveying party(ies) 3. Nature of conveyance: ASSIGNMENT Execution Date: September 13, 2002 & September 18, 2002 YES Additional name(s) & address(es) attached? 4. Application number(s) or patent number(s): If this is being filed together with a new application, the execution date of the application is: A. Patent Application Number(s): B. Patent Number(s): 10/053,880 Additional numbers attached? NO 5. Name and address of party to whom correspondence 1 6. Total number of applications/patents involved: concerning document should be mailed: \$40.00 7. Total fee (37 C.F.R. § 3.41); William T. Ellis X Check Enclosed FOLEY & LARDNER Washington Harbour Charge to deposit account 3000 K Street, N.W., Suite 500 19-0741 Washington, D.C. 20007-5143 8. Deposit account number: 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. The Commissioner is hereby authorized to charge any additional recordation fees which may be required in this matter to the above-identified deposit_accdunt.

William T. Ellis

October 29, 2002

Name of person signing

Signature

Date

Total number of pages including cover sheet, attachments, and document:

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ASSIGNMENT AND AGREEMENT

WHEREAS, Satoshi MOTOUJI c/o Omron Corporation of 801, Minamifudodo-cho, Horikawahigashiiru, Shiokoji-dori, Shimogyo-ku, Kyoto-shi, Kyoto 600-8530 JAPAN, lichi HIRAO c/o Omron Corporation of 801, Minamifudodo-cho, Horikawahigashiiru, Shiokoji-dori, Shimogyo-ku, Kyoto-shi, Kyoto 600-8530 JAPAN, Teruyuki HAYASHI c/o Tokyo Electron Limited of 650 Mitsuzuwa, Hosaka-cho, Nirasaki-shi, Yamanashi 407-0192, Japan, and Misako SAITO c/o Tokyo Electron Limited of 650 Mitsuzuwa, Hosaka-cho, Nirasaki-shi, Yamanashi 407-0192, Japan, (hereinafter referred to singly and collectively as "ASSIGNOR") have invented a certain invention entitled METHOD FOR DECIDING ON THE TIMING OF REPLACING A CHEMICAL FILTER, FILTER LIFE DETECTION SENSOR, CHEMICAL FILTER UNIT, AND SEMICONDUCTOR MANUFACTURING APPARATUS (Atty. Dkt. No. 041305-0102) for which an application for United States Letters Patent was filed on January 24, 2002 as Application No. 10/053,880; and

WHEREAS, OMRON CORPORATION a corporation having its principal place of business at 801, Minamifudodo-cho, Horikawahigashiiru, Shiokoji-dori, Shimogyo-ku, Kyoto-shi, Kyoto 600-8530 JAPAN, AND TOKYO ELECTRON LTD, a corporation having its principal place of business at 3-6, Akasaka 5-chome, Minato-ku, Tokyo 107-8481 Japan (hereinafter referred to singly and collectively as "ASSIGNEE") are desirous of acquiring the entire interest therein;

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto ASSIGNEE, its successors and assigns, the full and exclusive right, title, and interest in and to (a) the above-identified application and all other applications for Letters Patent of the United States for the above-identified invention or inventions and all improvements and modifications thereof, (b) all Letters Patent which may issue from said applications in the United States, (c) all divisions, continuations, reissues, and extensions of said applications and Letters Patent in the United States, and (d) the right to claim for any of said applications the full benefits and priority rights under the International Convention and any other international agreement to which the United States adheres; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representatives or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit

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as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY AUTHORIZES the law firm of **Foley & Lardner** to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of Foley & Lardner do not personally represent ASSIGNOR or ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

Executed this 13 day of September, 2002.

Satoshi Motouji

Satoshi Motouji

Wineshi Jekin

Witness

Date: September 13, 2002

Executed this /3 day of September, 2002.

<u>lichi Li mo</u> lichi HIRAO

> Kiyoshi Imai Witness

> Date: September 19, 2002

Executed this 18 day of September, 2002.
Teruyuki HAYASHI
Kazuhiko Sugiyama
Date: 18. September 2002
Executed this 18 day of September, 2002. Mirako Saito
Misako SAITO
Kazahileo Lugiyama
Date: 18 September, 2002

Note: *Prima facie* evidence of execution may optionally be obtained by execution of this document before a U.S. Consul or before a local officer authorized to administer oaths whose authority is proved by a certificate from a U.S. Consul.

RECORDED: 10/29/2002