PATENTS ONLY (ref OG 7/28/92)

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

2.

Name of Party(ies) conveying an interest:

Yoshio HOMMA, Noriyuki SAKUMA Naofumi OHASHI Toshinori IMAI Name and Address of Party(ies) receiving an interest:

HITACHI, LTD. 6, Kanda Surugadai 4-chome Chiyoda-ku, Tokyo, JAPAN

3. Description of the interest conveyed:

Assignment

01-10-2002

4. Application number(s) or patent number(s).

Additional sheet attached? Yes XXX No

101938752

A. Patent Application No.(s)

B. Patent No.(s)

09/558,593

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

> John R. Mattingly Mattingly, Stanger & Malur, P.C. 1800 Diagonal Road, Suite 370 Alexandria, Virginia 22314

- 6. Number of applications and patents involved: One
- 7. Amount of fee enclosed or authorized to be charged: \$40.00
- 8. The Commissioner is hereby authorized to charge Deposit Account No. 50-1417 if no check is attached.

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40.00 DP

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- 9. Execution date of attached document: January 25, 2000
- 10. To the best of my knowledge and belief, I declare under penalty of perjury under the laws of the United States of America that the foregoing information is true and correct and that any attached copy is a true copy of the original document.

Signature

Shrinath Malur

Name of Person Signing

Total number of pages being submitted:

January 4, 2002

Date

PATENT REEL: 012429 FRAME: 0622

E5150 34

ASSIGNMENT

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by HITACHI, LTD., a corporation organized under the laws of Japan, located at 6, Kanda Surugadai 4-chome, Chiyodaku, Tokyo, Japan, receipt of which is hereby acknowledged I do hereby sell and assign to said HITACHI, LTD., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

APPARATUS AND METHOD FOR PRODUCING SUBSTRATE WITH ELECTRICAL WIRE THEREON

invented by me— (if only one is named below) or us— (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said HITACHI, LTD., its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said HITACHI, LTD.

Signed on the date(s) indicated aside signatures:

RECORDED: 01/04/2002

| | INVENTOR(S) (発明者フルネームサイン) | Date Signed (署名日) |
|------|--|----------------------|
| 1) | Goshir Homma | 2000/01/25 |
| 2) . | Yoshio HOMMA Toriggini Salcana Noriyuki SAKUMA | 2000/01/25 |
| 3) . | Noriyuki SAKUMA Naotumi Ohashi Naofumi OHASHI | 2000 / 01 /25 |
| 4) . | Toshinori Tmai | 2000/01/25 |
| 5) . | | |
| 6) | | |
| 7) | | |
| 8) | | |

PATENT REEL: 012429 FRAME: 0623