PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date | |
|----------------------|----------------|--|
| Takeshi Matsuda | 03/07/2013 | |
| Akira Matsuzaki | 03/26/2013 | |
| Katsutoshi Takashima | 03/28/2013 | |

RECEIVING PARTY DATA

| Name: | JFE Steel Corporation |
|-------------------|-----------------------------|
| Street Address: | 2-3, Uchisaiwai-cho 2-chome |
| Internal Address: | Chiyoda-ku |
| City: | Tokyo |
| State/Country: | JAPAN |
| Postal Code: | 100-0011 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13822748 |

CORRESPONDENCE DATA

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| ATTORNEY DOCKET NUMBER: | JFE-169US | |
|-------------------------|-------------------|--|
| NAME OF SUBMITTER: | Joshua L. Cohen | |
| Signature: | /Joshua L. Cohen/ | |

502353700 REEL: 030449 FRAME: 0132

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| Date: | 05/20/2013 |
|--|------------|
| Total Attachments: 2 source=JFE-169assign#page1.tif source=JFE-169assign#page2.tif | |

PATENT REEL: 030449 FRAME: 0133

| ASSIGN | JENT | - Patent Application | Docket Number: JFE-169 | |
|---|-------------|---|------------------------|--|
| Whereas, the Ass | ignor, cor | mprising the following named inve | ntors: | |
| | 1. Tak | Takeshi MATSUDA 2. Akira MATSUZAKI | | |
| ASSIGNOR(s)/ INVENTOR(s) | 3. Kats | sutoshi TAKASHIMA | 4. | |
| v | 5. | | 6. | |
| | 7. | | 8. | |
| made an inventior | n entitled: | ZINC-BASED METAL COATE |) STEEL SHEET | |
| for which an applic | | Letters Patent of the United State | 95 : | |
| is executed was filed in | concurrer | ntly herewith Patent and Trademark Office on _ ation Serial No.: 13/822,748 | <u>March 13, 2013</u> | |
| JFE Steel Corporation 2-3, Uchisaiwai-cho 2-chome (Full Name and Address) Chiyoda-ku Tokyo 100-0011 JAPAN | | | | |

is desirous of acquiring the entire interest in and to said invention and the Letters Patent to be obtained therefor,

Now, therefore, in consideration of the payment by Assignee to Assignor of a sum corresponding to One, Dollar (\$1.00), and for other good and valuable consideration, the receipt of which is hereby acknowledged, Assignor, intending to be legally bound, hereby sells, assigns and transfers to Assignee, its successors and assigns, the full and exclusive right, title and interest in and to said invention, all applications for Letters Patent for said invention, including all divisions, continuations, and continuations-in-part thereof, all rights to claim priority based thereon, and all Letters Patent, including reissues, to be obtained therefor, including any and all foreign patent rights in this invention corresponding thereto.

Assignor hereby warrants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Assignment.

Assignor agrees it shall be legally bound, upon request of the Assignee or its successors or assigns or a legal representative thereof, to supply all information and evidence of which the Assignor has knowledge or possession, relating to the making and practice of said invention, to testify in any legal proceeding relating thereto, to execute all instruments proper to patent the invention in the United States of America and foreign countries in the name of the Assignee, and to execute all instruments proper to carry out the intent of this instrument.

If the invention requires a biological deposit, Assignor also grants to Assignee such control over any deposit made by Assignor as may be necessary to the validity of the patent rights assigned herein.

ASSIGNMENT - Patent Application

Docket Number: JFE-169

Assignor authorizes Assignor's attorney to insert at the end hereof, the serial number and filing date of the aforesaid application for United States Letters Patent and/or the Attorney Docket or file designation for this application if not identified above.

If the Assignor includes more than one individual, these obligations shall apply to these individuals both individually and collectively.

In witness whereof, this Assignment is executed on the day indicated below.

| | Typed or Printed Name | Signature | Date |
|-------------------|--|--------------------------|---------------------------------------|
| | Takeshi MATSUDA | Wasulo | March 7 , 2013 |
| SIGNATURE | | * Witness to Assignor #1 | |
| | 2. Akira MATSUZAKI | ahira matsuzarhi | March 26,2013 |
| | | * Witness to Assignor #2 | |
| | 3. Katsutoshi TAKASHIMA | Matseetoshi Fakashin | March 28 , 2013 |
| | | * Witness to Assignor #3 | |
| | 4. | | · · · · · · · · · · · · · · · · · · · |
| | | * Witness to Assignor #4 | |
| | 5. | | |
| | | * Witness to Assignor #5 | |
| | 6. | | |
| | | * Witness to Assignor #6 | |
| Application for U | Jnited States Letters Patent: | | |
| Serial No.: 13 | /822748 | | |
| Filed: March | 13, 2013 | | |
| Attorney Docket | • | | |
| Total Number o | otal Number of Assignment Pages 2 * Witness signature recommended, mandatory for some coun | | |

RATE NOT

REEL: 030449 FRAME: 0135

RECORDED: 05/20/2013