PATENT ASSIGNMENT

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------|----------------|
| Junichi NAKAGAWA | 12/08/2010 |
| Tadayuki ITO | 12/08/2010 |
| Tetsuo NISHIYAMA | 12/08/2010 |
| Masahiro DOKI | 12/14/2010 |
| Kozo SAITO | 01/03/2011 |
| Belal GHARAIBEH | 01/11/2011 |
| Keng Hoo CHUAH | 01/21/2011 |
| Ahmad SALAIMEH | 01/03/2011 |
| Masahiro YAMAMOTO | 04/20/2011 |
| Tomoya TAKEUCHI | 03/01/2011 |
| Kazufumi ITO | 03/01/2011 |
| Huaxiong HUANG | 04/08/2011 |
| Sean C. BOHUN | 04/08/2011 |

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PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13060658 |

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PATENT REEL: 026297 FRAME: 0426 CH \$40,00 13060

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Total Attachments: 3

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PATENT REEL: 026297 FRAME: 0427

BIRCH, STEWART, KOLASCH & BIRCH, LLP

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ASSIGNMENT

| Application 1 | Vo. | 13/060,658 | Filed | February 24, 2011 | |
|---|--|---|---|---|--|
| Insert Name(s) of Inventor(s) | | ***(Given Name FAMIL) | Y NAME (ALL CAPS)) | ** | |
| • | SAIT Tomo | O, Belal GHARAIBEH, Keng | g Hoo CHUAH, D, Huaxiong HUA | Tetsuo NISHIYAMA, Masahiro DOKI, Kozo Ahmad SALAIMEH, Masahiro YAMAMOTO, NG, Sean C. BOHUN (hereinafter designated as seful improvements in: | |
| Insert Title of Invention | MET | HOD FOR DETECTING DEFE | CT IN MATERIA | L AND SYSTEM FOR THE METHOD | |
| for which undersigne | | rhich an application for Letters rsigned (except in the case of a p | Patent of the Uni | ted States of America has been executed by the tion) | |
| Insert Date of Signing of December 8, 2010; December 14, 2010; December 15, 2010; January 3, 2011; January 11 Application | | | | | |
| | On _J | January 21, 2011; March 1, 201 | 1; April 8, 2011 a | nd April 20, 2011 ; and | |
| Insert Name of Assignee | WHE | REAS, NIPPON STEEL COR | PORATION | | |
| Insert Address of Assignee | of 6-1, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8071 JAPAN | | | | |
| CHECK BOX IF APPROPRIATE | of acc | irs, successors, legal representat quiring the entire right, title and hay be granted therefor in the Ur n any foreign countries. | interest in and to | nereinafter designated as the Assignee) is desirous said invention and in and to any Letters Patent(s) erica and | |
| | transf right and th in the design | erred, and by these presents doe to the said invention in the Uni- ne entire right, title and interest in United States of America, its mated, in any and all foreign | s sell, assign and t ted States of Ame n and to any and a territories, depend countries; and to | ion, the undersigned has (have) sold, assigned and ransfer unto said Assignees the full and exclusive rica, its territories, dependencies and possessions II Letters Patent(s) which may be granted therefor dencies and possessions, and if the box above is any and all divisions, reissues, continuations, erms for which the same may be granted. | |

Page 1 of 3

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

| Date _ | Dec. 8, 2010 | Name of Inventor | Junichi Nakagoua (signature) Junichi NAKAGAWA |
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| Date _ | Dec. 8, 20/0 | Name of Inventor | Tadayki Ito (signature) Tadayuki ITO |
| Date _ | Dec.8, 2010, | Name of Inventor | Tetsud Mishiyama (signature) Tetsuo NISHIYAMA |
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| Date _ | Jan 03, 2011. | | |

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| Date _ | 04/0,8/2011 | Name of Inventor | |
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Page 3 of 3

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