

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Hideta Arai</td> <td>04/10/2013</td> </tr> <tr> <td>Kengo Kaminaga</td> <td>04/10/2013</td> </tr> <tr> <td>Atsushi Miki</td> <td>04/10/2013</td> </tr> <tr> <td>Ryo Fukuchi</td> <td>04/10/2013</td> </tr> </tbody> </table>		Name	Execution Date	Hideta Arai	04/10/2013	Kengo Kaminaga	04/10/2013	Atsushi Miki	04/10/2013	Ryo Fukuchi	04/10/2013
Name	Execution Date										
Hideta Arai	04/10/2013										
Kengo Kaminaga	04/10/2013										
Atsushi Miki	04/10/2013										
Ryo Fukuchi	04/10/2013										
RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>JX Nippon Mining & Metals Corporation</td> </tr> <tr> <td>Street Address:</td> <td>6-3, Otemachi 2-chome, Chiyoda-ku</td> </tr> <tr> <td>City:</td> <td>Tokyo</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> <tr> <td>Postal Code:</td> <td>100-8164</td> </tr> </table>		Name:	JX Nippon Mining & Metals Corporation	Street Address:	6-3, Otemachi 2-chome, Chiyoda-ku	City:	Tokyo	State/Country:	JAPAN	Postal Code:	100-8164
Name:	JX Nippon Mining & Metals Corporation										
Street Address:	6-3, Otemachi 2-chome, Chiyoda-ku										
City:	Tokyo										
State/Country:	JAPAN										
Postal Code:	100-8164										
PROPERTY NUMBERS Total: 1											
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13824478</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13824478						
Property Type	Number										
Application Number:	13824478										
CORRESPONDENCE DATA											
<p>Fax Number: 2159882757 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Email: karen.spina@dbr.com</p> <p>Correspondent Name: Daniel A. Monaco</p> <p>Address Line 1: One Logan Square, Ste. 2000</p> <p>Address Line 2: Drinker Biddle & Reath LLP</p> <p>Address Line 4: Philadelphia, PENNSYLVANIA 19103</p>											
ATTORNEY DOCKET NUMBER:	35706-0330-00-US										
NAME OF SUBMITTER:	Daniel A. Monaco										
Signature:	/Daniel A. Monaco/										

Date:

05/31/2013

Total Attachments: 3

source=35706_0330_00_US_Assignment#page1.tif

source=35706_0330_00_US_Assignment#page2.tif

source=35706_0330_00_US_Assignment#page3.tif

A S S I G N M E N T

WHEREAS, we,

Hideta ARAI,	a citizen of Japan, c/o Hitachi Works, JX Nippon Mining & Metals Corporation, 3-1, Shirogane-cho 3-chome, Hitachi-shi, Ibaraki 3170056, Japan
Kengo KAMINAGA,	a citizen of Japan, c/o Hitachi Works, JX Nippon Mining & Metals Corporation, 3-1, Shirogane-cho 3-chome, Hitachi-shi, Ibaraki 3170056, Japan
Atsushi MIKI,	a citizen of Japan, c/o Hitachi Works, JX Nippon Mining & Metals Corporation, 3-1, Shirogane-cho 3-chome, Hitachi-shi, Ibaraki 3170056, Japan
Ryo FUKUCHI,	a citizen of Japan, c/o Hitachi Works, JX Nippon Mining & Metals Corporation, 3-1, Shirogane-cho 3-chome, Hitachi-shi, Ibaraki 3170056, Japan

have invented certain new and useful improvements in

LIQUID CRYSTAL POLYMER COPPER-CLAD LAMINATE AND COPPER
FOIL USED FOR SAID LAMINATE

for which we have on April 10, 2013 executed an
application for United States Letters Patent under 35 U.S.C. 371 resulting
from the International Application No. PCT/JP2012/056318 filed on March 12,
2012; and

WHEREAS, JX Nippon Mining & Metals Corporation, a Japanese Corporation, located at 6-3, Otemachi 2-chome, Chiyoda-ku, Tokyo 100-8164, Japan,, (hereinafter called the "Assignee"), is desirous of acquiring the entire right, title and interest in and to said application and the inventions and improvements therein disclosed so far as the United States of America is concerned.

NOW, THEREFORE, in good and valuable consideration paid to us by said Assignee, receipt whereof is hereby acknowledged, we do hereby assign, sell, transfer and set over unto said Assignee the entire right, title and interest in and to said application and the inventions and improvements therein disclosed for the United States and any Letters Patent which may issue

therefore in the United States and all divisions, re-issues, continuations, renewals and/or extensions thereof, said Assignee to have and to hold the interests herein assigned to the full ends of the terms of said Letters Patent and any and all divisions, re-issues, continuations, renewals and/or extensions thereof, respectively, a fully and entirely as the same would have been held and enjoyed by us had this Assignment not been made.

The Commissioner of Patents and Trademarks is requested to issue such Letters Patent in accordance herewith. We covenant that we are the lawful owners of the said application, and of the right to make, use or sell the inventions and improvements disclosed therein within the United States and that we have the full right to make this Assignment.

And for the consideration aforesaid, we agree that we will communicate to said Assignee or the representatives thereof any facts known to us respecting the inventions and improvements of the said United States application and will, upon request, but without expense to us, testify in any legal proceedings, sign all lawful papers, execute all divisional, re-issue, continuation, renewal and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts deemed necessary or expedient by said Assignee or by counsel for said Assignee, to assist or enable said Assignee to obtain and enforce full benefits from the rights and interest herein assigned. This Assignment shall be binding upon our heirs, executors, administrators and/or assigns, and shall inure to the benefit of the heirs, executors, administrators, successors, and/or assigns, as the case may be, of said Assignee.

Executed at Ibaraki, Japan,

this 10th day of April, 2013

Hideta Arai
Hideta ARAI

Executed at Ibaraki, Japan,

this 10th day of April, 2013

Kengo Kaminaga
Kengo KAMINAGA

Executed at Ibaraki, Japan,

this 10th day of April, 2013

Atsushi Miki

Atsushi MIKI

Executed at Ibaraki, Japan,

this 10th day of April, 2013

Ryo Fukuchi

Ryo FUKUCHI