

## PATENT ASSIGNMENT

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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>Leroy E. D'Astolfo Jr.</td> <td>08/29/2013</td> </tr> <tr> <td>William J. Steiner</td> <td>09/03/2013</td> </tr> <tr> <td>Eric C. Moreland</td> <td>09/03/2013</td> </tr> <tr> <td>Robert L. Kozarek</td> <td>08/29/2013</td> </tr> </tbody> </table>		Name	Execution Date	Leroy E. D'Astolfo Jr.	08/29/2013	William J. Steiner	09/03/2013	Eric C. Moreland	09/03/2013	Robert L. Kozarek	08/29/2013
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RECEIVING PARTY DATA											
Name:	Alcoa Inc.										
Street Address:	Alcoa Corporate Center										
Internal Address:	201 Isabella Street										
City:	Pittsburgh										
State/Country:	PENNSYLVANIA										
Postal Code:	15212-5858										
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>13987650</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13987650						
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Application Number:	13987650										
CORRESPONDENCE DATA											
Fax Number:	7243375959										
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>											
Phone:	724-337-4986										
Email:	kimberly.merichko@alcoa.com										
Correspondent Name:	Greenberg Traurig, LLP										
Address Line 1:	Alcoa Technical Center										
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ATTORNEY DOCKET NUMBER:	11-0443										
NAME OF SUBMITTER:	Irene L. Brookins										

Signature:	/Irene L. Brookins/
Date:	09/11/2013
Total Attachments: 2 source=13987650#page1.tif source=13987650#page2.tif	

**ASSIGNMENT**

WHEREAS, we, **Leroy E. D'Astolfo, Jr.** of 233 Fairhaven Drive, Lower Burrell, PA 15068, USA; **William J. Steiner** of 301 Acorn Drive, Acme, PA 15610, USA; **Eric C. Moreland** of 9 Lacebark Court, Pittsburgh, PA 15239, USA and **Robert L. Kozarek** of 1031 Watt Road, Apollo, PA 15613, USA, have invented a certain new and useful invention entitled "**SYSTEMS AND METHODS FOR PREVENTING THERMITE REACTIONS IN ELECTROLYTIC CELLS**", for which the following patent application has been prepared and filed:

- (i) with the U.S. Patent and Trademark Office on **August 19, 2013**, receiving **Serial No. 13/987,650**.


NOW THEREFORE, be it known that we, for and in consideration of one U.S. dollar (\$1 US) and other certain good and valuable consideration, the sufficiency and receipt of which is hereby acknowledged, at the request of the assignee do sell, assign and transfer unto said assignee, **Alcoa Inc.**, a **Pennsylvania** corporation having a place of business at **Alcoa Corporate Center, 201 Isabella Street, Pittsburgh, PA 15212-5858**, its successors, legal representatives and assigns, the aforesaid applications and all rights to claim priority directly or indirectly to the aforesaid applications and all continuation, divisional, continuation-in-part and reissue applications, all patent applications that claim priority directly or indirectly to the aforesaid applications, all patent applications in foreign countries, all applications pursuant to the Patent Cooperation Treaty and all applications for extension filed or to be filed for the invention(s), and all Letters Patent, Invention Registrations, Utility Models, Extensions or Reissues and other patent rights, obtained for the invention(s) in the United States or any other country; we also assign any right, title or interest in and to the invention(s) that has not already been transferred to the assignee; we warrant that no assignment of the invention(s), application or patent therefor has been made to a party other than **Alcoa Inc.**; we warrant that there is no obligation to make any assignment, grant, mortgage, license, or other agreement affecting the rights, and property herein conveyed, and that we have the full right to convey the same as expressed herein of the invention(s), application, or any patent therefor to any party other than **Alcoa Inc.**; and agree that, when requested, without charge to but at the expense of said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this assignment, we will, for all countries execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said improvements; execute all rightful oaths and other papers; communicate to said Assignee, its successors, assigns, and representatives, all facts known to me relating to said improvements and the history thereof; testify in all legal proceedings; and generally do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing, maintaining and enforcing proper patent protection for said improvements, and for vesting title to said improvements and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns and legal representatives.

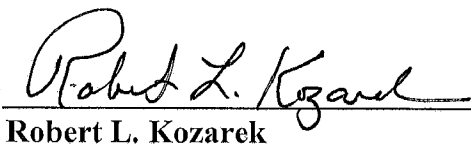
The Commissioner For Patents is hereby authorized and requested to issue the Letters Patent solely in accordance with the terms of this Assignment to **Alcoa Inc.**, its successors, legal representatives and assigns, as the assignee of the entire right, title and interest therein.

IN WITNESS WHEREOF, the parties hereto have executed this Assignment as of the date indicated hereunder.

Date: 8/29/2013 By:   
Leroy E. Astolfo, Jr.

Date: 9-3-13 By:   
William J. Steiner

Date: 9-3-13 By:   
Eric C. Moreland

Date: August 29, 2013 By:   
Robert L. Kozarek