

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>Israel Stol</td><td>05/18/2005</td></tr><tr><td>John W. Cobes</td><td>05/18/2005</td></tr></tbody></table>	Name	Execution Date	Israel Stol	05/18/2005	John W. Cobes	05/18/2005	
Name	Execution Date						
Israel Stol	05/18/2005						
John W. Cobes	05/18/2005						
RECEIVING PARTY DATA							
Name:	Alcoa Inc.						
Street 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>11133083</td></tr></tbody></table>	Property Type	Number	Application Number:	11133083			
Property Type	Number						
Application Number:	11133083						
CORRESPONDENCE DATA							
Fax Number:	(724)337-5959						
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>							
Phone:	724-337-2772						
Email:	susan.cranmer@alcoa.com						
Correspondent Name:	Eckert Seamans Cherin & Mellott, LLC.						
Address Line 1:	ATC -- 100 Technical Drive						
Address Line 4:	Alcoa Center, PENNSYLVANIA 15069-0001						
NAME OF SUBMITTER:	GARY P. TOPOLOSKY						
Total Attachments: 2 source=370023-00097-02#page1.tif source=370023-00097-02#page2.tif							

OP \$40.00 11133083

ASSIGNMENT

In consideration of One Dollar (\$1.00), and other good, and valuable considerations, the receipt of which is hereby acknowledged, and intending to be legally bound hereby, we, Israel Stol of the city of Pittsburgh, county of Allegheny and John W. Cobes of the city of Lower Burrell, county of Westmoreland, both of the state of Pennsylvania; respectively

Hereby sell, assign and transfer to ALCOA INC., a corporation of the Commonwealth of Pennsylvania, having a place of business at Alcoa Corporate Center, 201 Isabella Street, Pittsburgh, Pennsylvania 15212-5858, its successors, assigns, and legal representatives, our entire right, title and interest, for all countries, in and to any and all improvements which are disclosed and claimed, and any and all improvements which are disclosed but not claimed, in the application for United States Patent, **Serial No. 11/133,083, Filed May 19, 2005, entitled "Fracture Resistant Friction Stir Welding Tools"** (Atty. Docket No. 370023-00097-02) and in and to said application and all divisional, continuing, substitute, renewal, reissue, and all other applications for Letters Patent which have been or shall be filed on any of said improvements disclosed in said application; and in and to all original and reissued patents which have been or shall be issued on said improvements;

Authorize and request my attorney to insert above the filing date and application number when they become known;

Authorize and request the Commissioner of Patents and Trademarks to issue to said Assignee, ALCOA INC., its successors, assigns and legal representatives, in accordance with this assignment, any and all United States Letters Patent on said improvements, or any of them disclosed in said application;

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 us 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.

Covenant with said Assignee, its successors, assigns and legal representatives that we have made to others no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed, and that we have full right to convey the same as herein expressed.

Israel Stol 18 MAY 2005
Israel Stol Date

John W. Cobes MAY 18, 2005
John W. Cobes Date

State of Pennsylvania)
)SS.
County of Westmoreland)

Before me this 18th day of May, 2005 personally appeared **Israel Stol**, to me personally known to be the person who is described in and who executed the above instrument, and he acknowledged to me that he executed the same of his own free will for the purposes therein set forth.

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Susan Cranmer-Jervis, Notary Public
Upper Burrell Twp., Westmoreland County
My Commission Expires Dec. 11, 2007
Member, Pennsylvania Association Of Notaries

Susan Cranmer-Jervis
Notary Public

State of Pennsylvania)
)SS.
County of Westmoreland)

Before me this 18th day of May, 2005 personally appeared **John W. Cobes**, to me personally known to be the person who is described in and who executed the above instrument, and he acknowledged to me that he executed the same of his own free will for the purposes therein set forth.

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
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