502042305 08/29/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Tapan Kumar ROUT	07/23/2012
Anil Vilas GAIKWAD	08/25/2012

RECEIVING PARTY DATA

Name:	Tata Steel Limited
Street Address:	Bistupur
City:	Jamshedpur
State/Country:	INDIA
Postal Code:	831 001

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13575413

CORRESPONDENCE DATA

 Fax Number:
 2026590105

 Phone:
 2026590100

Email: blanca.smith@novakdruce.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via

US Mail.

Correspondent Name: Novak Druce + Quigg, LLP

Address Line 1: 300 New Jersey Avenue, N.W., 5th FI

Address Line 4: Washington, DISTRICT OF COLUMBIA 20001

ATTORNEY DOCKET NUMBER:	18459.0079.US0000
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NAME OF SUBMITTER: Anthony P. Venturino

Total Attachments: 4

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> PATENT REEL: 028871 FRAME: 0844

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AND, WHEREAS <u>Tata Steel Limited</u> a corporation having a place of business located at Bistupur, Jamshedpur 831 001, India (hereinafter "ASSIGNEE"), is desirous of acquiring certain rights to the Invention including all patents and patent applications thereto;

NOW, THEREFORE, in view of good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, we do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, our entire right, title and interest in and throughout the United States of America (including its territories and dependencies) and all countries foreign thereto in and to said Invention including said United States patent application(s), any other United States patent application(s), including provisional, divisional, renewal, substitute, continuation, reexamination and reissue applications, based in whole or in part on said United States patent application or in whole or in part on said Invention, any foreign applications, including international and regional applications, based in whole or in part on any of the aforesaid United States applications or in whole or in part on said Invention, in and to any and all letters patent, including extensions thereof, of any country which have been or may be granted on any of the aforesaid applications or on said Invention or any part(s) thereof, and in and to any right to claim priority to any of the aforesaid patents and/or patent applications;

AND WE hereby authorize and request our agents, Novak, Druce & Quigg LLP, whose address is 300 New Jersey Avenue, N.W., Fifth Floor, Washington, D.C. 20001, to insert hereon any identification necessary or desirable for recordation of this document, including the filing date and application number of said application when known.

PATENT REEL: 028871 FRAME: 0845

Attorney Docket No.	U.S. Patent Application
	\$7.55. C GGN-8GG C GS/GSGN-8GGN-735.

AND WE hereby agree for ourselves and our heirs, executors and administrators to execute without further consideration any further documents and instruments which may be necessary, lawful and proper in the prosecution of said above-referenced application or in the preparation or prosecution of any continuing, substitute, divisional, renewal, reexamination or reissue application or in any amendments, extensions or interference proceedings, or other applications for patents of any region or country, that may be necessary to secure to ASSIGNEE its interest and title in and to said Invention or any part(s) thereof, and in and to said several patents or any of them;

AND WE hereby covenant for ourselves and our legal representatives, and agree with said ASSIGNEE, its successors and assigns, that we have granted no right or license to make, use, sell or offer to sell said Invention, to anyone except said ASSIGNEE, that prior to the execution of this deed, our right, title and interest in said Invention had not been otherwise encumbered, and that we have not and will not execute any instrument in conflict therewith;

AND WE do hereby authorize and request the United States Commissioner for Patents to issue any and all letters patent which may be granted upon said United States applications, or upon said Invention or any part(s) thereof when granted, to said ASSIGNEE.

IN WITNESS WHEREOF, WE have hereunto set our hands and seals.

FOR ASSIGNORS: The Named Inventors

(1)	
23-07-2012	J-JOHN
Date	Tapan Kumar ROUT
WITNESS	
Date	Print or type name
(2)	
Date	
WITNESS	
Date	Print or type name

ASSIGNMENT

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NOW, THEREFORE, in view of good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, we do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, our entire right, title and interest in and throughout the United States of America (including its territories and dependencies) and all countries foreign thereto in and to said Invention including said United States patent application(s), any other United States patent application(s), including provisional, divisional, renewal, substitute, continuation, reexamination and reissue applications, based in whole or in part on said United States patent application or in whole or in part on said Invention, any foreign applications, including international and regional applications, based in whole or in part on any of the aforesaid United States applications or in whole or in part on said Invention, in and to any and all letters patent, including extensions thereof, of any country which have been or may be granted on any of the aforesaid applications or on said Invention or any part(s) thereof, and in and to any right to claim priority to any of the aforesaid patents and/or patent applications;

AND WE hereby authorize and request our agents, Novak, Druce & Quigg LLP, whose address is 300 New Jersey Avenue, N.W., Fifth Floor, Washington, D.C. 20001, to insert hereon any identification necessary or desirable for recordation of this document, including the filing date and application number of said application when known.

PATENT REEL: 028871 FRAME: 0847 AND WE hereby agree for ourselves and our heirs, executors and administrators to execute without further consideration any further documents and instruments which may be necessary, lawful and proper in the prosecution of said above-referenced application or in the preparation or prosecution of any continuing, substitute, divisional, renewal, reexamination or reissue application or in any amendments, extensions or interference proceedings, or other applications for patents of any region or country, that may be necessary to secure to ASSIGNEE its interest and title in and to said Invention or any part(s) thereof, and in and to said several patents or any of them;

AND WE hereby covenant for ourselves and our legal representatives, and agree with said ASSIGNEE, its successors and assigns, that we have granted no right or license to make, use, sell or offer to sell said Invention, to anyone except said ASSIGNEE, that prior to the execution of this deed, our right, title and interest in said Invention had not been otherwise encumbered, and that we have not and will not execute any instrument in conflict therewith;

AND WE do hereby authorize and request the United States Commissioner for Patents to issue any and all letters patent which may be granted upon said United States applications, or upon said Invention or any part(s) thereof when granted, to said ASSIGNEE.

IN WITNESS WHEREOF, WE have hereunto set our hands and seals.

FOR ASSIGNORS: The Named Inventors

(1)	
Date	Johnson GO
WITNESS	
Date	Print or type name
(2)	
25-08-2012	Sperier
Date	Anil Vilas GAIKWAD
WITNESS	
Date	Print or type name
Date	Print or type name

2 of 2

PATENT REEL: 028871 FRAME: 0848