## 505174733 11/05/2018

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5221501

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
MARION H. EMMERT	10/31/2018
REMYA P. NARAYANAN	11/05/2018

#### **RECEIVING PARTY DATA**

Name:	WORCESTER POLYTECHNIC INSTITUTE
Street Address:	100 INSTITUTE RD
City:	WORCESTER
State/Country:	MASSACHUSETTS
Postal Code:	01609

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16030041

### **CORRESPONDENCE DATA**

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

**Phone:** 9787647583

Email: docket@armisiplaw.com
Correspondent Name: CHRISTOPHER J. LUTZ

Address Line 1: P.O. BOX 1564

Address Line 4: WESTBOROUGH, MASSACHUSETTS 01581

ATTORNEY DOCKET NUMBER:	WPI17-13
NAME OF SUBMITTER:	CHRISTOPHER J. LUTZ
SIGNATURE:	/Christopher J. Lutz/
DATE SIGNED:	11/05/2018

#### **Total Attachments: 4**

source=WPI17-13\_emmert\_signed\_asg#page1.tif source=WPI17-13\_emmert\_signed\_asg#page2.tif source=WPI17-13\_remya\_signed\_asg#page1.tif source=WPI17-13\_remya\_signed\_asg#page2.tif

PATENT 505174733 REEL: 047409 FRAME: 0334

Attorney Docket No.: WPI17-13

Joint

## ASSIGNMENT

WHEREAS, we, Marion H. Emmert and Remya P. Narayanan have invented a certain improvement in BAUXITE RESIDUE RECYCLING described in an application for Letters Patent of the United States, the specification of which:

[]	is being executed on even date herewith a United States Patent Office;	ınd is about to be filed in t	he
[X]	was filed on 07-09-2018 as U.S. Application	on No. <b>16/030,041</b> ;	
[]	was patented under U.S. Patent No	on	_•

WHEREAS, Worcester Polytechnic Institute (hereinafter "ASSIGNEE"), a school organized and existing under the laws of Massachusetts and having a usual place of business at 100 Institute Road, Worcester, Massachusetts 01609 desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

**AND**, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the

Attorney Docket No.: WPI17-13
Joint

aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

**IN TESTIMONY WHEREOF**, we have hereunto set our hands and the date set forth below.

Inventor:_	06-44
	Marion H. Emmert
Dated:	10/31/2018
	T I
Inventor:_	
	Remya P. Narayanan

Dated:

Attorney Docket No.: WPI17-13

Joint

# **ASSIGNMENT**

WHEREAS, we, Marion H. Emmert and Remya P. Narayanan have invented a certain improvement in BAUXITE RESIDUE RECYCLING described in an application for Letters Patent of the United States, the specification of which:

[]	is being executed on even date herewith and is about to be filed in the United States Patent Office;
[X]	was filed on <b>07-09-2018</b> as U.S. Application No. <b>16/030,041</b> ;
[]	was patented under U.S. Patent Noon

WHEREAS, Worcester Polytechnic Institute (hereinafter "ASSIGNEE"), a school organized and existing under the laws of Massachusetts and having a usual place of business at 100 Institute Road, Worcester, Massachusetts 01609 desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the

Attorney Docket No.: WPI17-13

Joint

aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

**AND**, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

**IN TESTIMONY WHEREOF**, we have hereunto set our hands and the date set forth below.

mvemor	
	Marion H. Emmert
Dated:	
Inventor:	Renews
	Remya <del>P. Narayanan</del>
Dated:	11/5/2018

2 of 2