503816287 05/06/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3862935

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ZHIGANG Z. FANG	02/23/2016
PENG FAN	02/24/2016
SCOTT MIDDLEMAS	03/08/2016
JUN GUO	03/07/2016
YING ZHANG	02/23/2016
MICHAEL FREE	02/26/2016
AMARCHAND SATHYAPALAN	03/09/2016
YANG XIA	03/14/2016

RECEIVING PARTY DATA

Name:	UNIVERSITY OF UTAH
Street Address:	201 S. PRESIDENTS CIRCLE
City:	SALT LAKE CITY
State/Country:	UTAH
Postal Code:	84112

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14912846

CORRESPONDENCE DATA

Fax Number: (801)566-0750

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: 801-566-6633

Email:rich@tnw.com, causse@tnw.comCorrespondent Name:THORPE NORTH & WESTERN, LLP.

Address Line 1: P.O. BOX 1219

Address Line 4: SANDY, UTAH 84091-1219

ATTORNEY DOCKET NUMBER:	00846-U5356.PCT.US	
NAME OF SUBMITTER:	ERIK S. ERICKSEN	
SIGNATURE:	/ErikSEricksen/	

PATENT 503816287 REEL: 038490 FRAME: 0618

DATE SIGNED:	05/06/2016
Total Attachments: 10	
source=Assignment#page1.tif	
source=Assignment#page2.tif	
source=Assignment#page3.tif	
source=Assignment#page4.tif	
source=Assignment#page5.tif	
source=Assignment#page6.tif	
source=Assignment#page7.tif	
source=Assignment#page8.tif	
source=Assignment#page9.tif	
source=Assignment#page10.tif	

Docket No. 00846-U5356,PCT.US

WHEN RECORDED RETURN TO:
Erik S. Ericksen, M.S.
Thorpe North & Western, LLP
P.O. Box 1219
Sandy, UT 84091-1219

ASSIGNMENT

WHEREAS, we, Zhigang Z. Fang (resident of the State of Utah, whose postal mailing address is 615 Arapeen Drive, Suite 310, Salt Lake City, Utah 84108), Peng Fan (resident of the State of Utah, whose postal mailing address is 615 Arapeen Drive, Suite 310, Salt Lake City, Utah 84108), Scott Middlemas (resident of the State of Utah, whose postal mailing address is 615 Arapeen Drive, Suite 310, Salt Lake City, Utah 84108), Jun Guo (resident of the State of Utah, whose postal mailing address is 615 Arapeen Drive, Suite 310, Salt Lake City, Utah 84108), Ying Zhang (resident of the State of Utah, whose postal mailing address is 615 Arapeen Drive, Suite 310, Salt Lake City, Utah 84108), Micheal Free (resident of the State of Utah, whose postal mailing address is 615 Arapeen Drive, Suite 310, Salt Lake City, Utah 84108). Amarchand Sathyapalan (resident of the State of Utah, whose postal mailing address is 615 Arapeen Drive, Suite 310, Salt Lake City, Utah 84108), Yang Xia (resident of the State of Utah, whose postal mailing address is 615 Arapeen Drive, Suite 310, Salt Lake City, Utah 84108), (hereinafter "Assignors") have invented a certain new and useful improvement in a PRODUCING A TITANIUM PRODUCT for which an application for United States Letters Patent is being filed concurrently herewith OR which was filed on February 18, 2016 as THORPE NORTH & WESTERN, LLP Docket No. 00846-U5356.PCT.US, and given U.S. Patent Application Serial No. 14/912,846; and:

WHEREAS, University of Utah, an Institute of Higher Education, organized and existing under the laws of the State of Utah, having a business address of 201 S. Presidents Circle, Salt Lake City, Utah 84112, (hereinafter "Assignee"), is desirous of acquiring Assignor's entire right, title, and interest in the same;

NOW, THEREFORE, in consideration of one dollar (\$1.00) and other good and valuable consideration paid to us by the Assignee, the receipt and sufficiency whereof is hereby acknowledged, we the said Assignors, hereby grant and assign unto the said Assignee, our entire right, title and interest in said invention and in all patent applications based thereon, including but not limited to the above identified United States Patent Application and in all provisionals, divisions, continuations, and continuations-in-part of said application, or reissues or extensions of Letters Patent or Patents granted thereon, and in all corresponding applications filed in countries foreign to the United States, and in all patents issuing thereon in the United States and foreign countries; the right, power and authority to file and prosecute U.S. and foreign patent applications on said invention, and to do so in its own name wherever such right may be legally exercised, and including the right to claim the priority and benefits of the International Convention for such applications; and the right to bring actions for infringement of any right in said invention in its own name, including past infringement, in any jurisdiction.

We hereby authorize and request the United States Commissioner of Patents and Trademarks, and such Patent Office officials in foreign countries as are duly authorized by their patent laws to issue patents, to issue any and all Letters Patent on said invention to the said Assignee as the owner of our entire interest, for the sole use and behoof of the said Assignee, 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 agree, without further consideration and without expense to us, to sign all lawful papers and to perform all other lawful acts which the Assignee may request of us to make this Assignment fully effective, including, by way of example but not of limitation, the following: prompt execution of all original, divisional, substitution, reissue, and other United States and foreign patent applications on said invention, and all lawful documents as requested by the Assignee to further the prosecution of any of such patent applications; and cooperation to

the best of our ability including, but not limited to, the execution of all lawful documents, the production of evidence in any actions or proceedings concerning the invention, including, but not limited to, nullification, reissue, extension, and infringement proceedings involving said invention.

This assignment and agreement shall be binding upon our heirs and legal representatives.

Executed this 23 day of February, 2016 at Salt Loles Git Uta 4 (City, State). Zhigang Z. Fang STATE OF Wah

County of Salt Lake

Before me personally appeared Zhigang Z. Fang and acknowledged the foregoing instrument to be his free act and deed this 23rd day of February, 20/6.

Notary Public Alexander State

Notary Public Alex

State of Utah

Assignment of US Patent Application Docket No: 00846-U5356.PCT.US Page 4 of 7		
Executed this <u>24</u> day of(City	Feb , 20 , State).	bat St Louis
	Peng Fan 47	
STATE OF MISSOURI		
County of SAINT LOUIS : ss		
Before me personally appeared Pen be his free act and deed this 24 day of MUJIB A. KHAN Notary Public - Notary Seal State of Missouri, St Louis County Commission # 14859070 My Commission Expires Apr 11, 2018 Executed this day of	(MJb 4. Notary Public	,20 <u>16</u> . Chan
(City		****
STATE OF)	Scott Middlemas	
‡ 8S		
County of)		
Before me personally appeared Scot	t Middlemas and acknowl	edged the foregoing
instrument to be his free act and deed this _	day of	, 20
	Notary Public	

Assignment of US Patent Applic Docket No: 00846-U5356.PCT.U Page 4 of 7		
Executed this	day of	. 20at
	(City,	State).
		Peng Fan
STATE OF)	
County of	, 22	
Before me personal	ly appeared Peng	Fan and acknowledged the foregoing instrument to
be his free act and deed this	day of	, 20
Executed this <u>0</u> th Salt Lake City, U	`day of <u>M/</u> 1Mh _(City,	
		Aut Williams Scott Middlemas
STATE OF <u>UTAH</u> County of <u>SAH LAK</u>) (SSS) (U)	
		Middlemas and acknowledged the foregoing day of MAYCh, 2016.
Note y Public Strain St		Notary Public TV TV

Executed this 7th day o	if Mi	arch	20/h ai	Stále	colleg
PA	(City,	State).	-4-50-		7
		Jun Guo		G_	
STATE OF Anny Lead		Jun vano			
County of Color	7)				
Before me personally appear hat Ry be his free act and deed this	ed Jun (Suo and acknowle	dged the for	regoing instr	ument to
e his free act and deed this	_day of	T Vanada			
Noterial Seal School J. Sanctood, Notery Public		A Andrews	ann ag i de dianne montre l'implice met ag	Mary Company	
Pation Township, Centre County \$8y Commission Explass May 11, 2018		Notary Public			··················
Executed this day o	f		, 20 <u>a</u> t		.cccccccccqccccccc.
		Ying Zhang		<u></u>	
TATE OF	_)				
ounty of))				
Before me personally appear	ed Ying	Zhang and ackno	wledged the	foregoing in	nstrument
be his free act and deed this	day	of		20	
		Notary Public			iii

Assignment of US Patent Application Docket No: 00846-U5356.PCT.US

	nent of US Patent Applicat No: 00846-U5356.PCT.US of 7			
	Executed this	day of	, 20at	
			Jun Guo	***************************************
STATI	E OF			
County	/ of	; ss)		
	Before me personally	appeared Jun	Guo and acknowledged the foregoing instrument	t to
be his	. ,		f, 20	
			Notary Public	
	Executed this 23	day of	Fob. ,20)6 at Salt Las , State).	le .
C	ty. Utah	(City,	, State).	
	~~		Vine Share	
			Ying Zhang Ying Zhang	
	OF Wah)		
County	of Salt Lale	: ss ()		
	Before me personally	appeared Yins	g Zhang and acknowledged the foregoing instrun	nent
to be h	is free act and deed thi		of tebruary .20/6.	
	Notary Public LESLE J. SMT		Leli Bite	
	Wy Commission 895.46 Wy Commission Con March 25, 2016 States Cri Utah		Notary Public	

Page 6 of 7 Executed this 26th day of February , 2016 at Salf Lake City, Utah (City, State). STATE OF <u>Utale</u>
County of <u>Salt Lake</u> Before me personally appeared Micheal Free and acknowledged the foregoing instrument to be his free act and deed this _______, 2016. August 14, 2019 State of Utah Executed this _____ day of _____ s20__ at ____ (City, State). Amarchand Sathyapalan STATE OF _____ County of Before me personally appeared Amarchand Sathyapalan and acknowledged the foregoing instrument to be his free act and deed this ______ day of ______, 20___.

Notary Public

Assignment of US Patent Application Docket No: 00846-U5356.PCT.US

Assignment of US Patent Application Docket No: 00846-U5356.PCT.US Page 6 of 7	
Executed thisday of	_s 20at
(City	
	Micheal Free
STATE OF	
County of	
Before me personally appeared Mic	heal Free and acknowledged the foregoing instrument
to be his free act and deed this day	of
	Notary Public
Executed this day of(City.	<u>larch</u> 2016 at <u>Solt Lake</u> (it
	January .
8 6	Amarchand Sathyapalan
STATE OF USA SS	
	crchand Sathyapalan and acknowledged the foregoing
instrument to be his free act and deed this	A day of March , 20/b. Calc CMa Quien Notary Public
	Montary Public CARLA G. Mac CUEEN Constitutor #192077 Ny Constitutor Explore January Public Lineary Public States of Uten

Assignment of US Patent Application Docket No: 00846-U5356.PCT.US		
Page 7 of 7		
HOUD XIA		
Executed this 14th d	ay of <u>March</u>	,2016 at Salt lake Orty
<u>u+ah</u>	(City, State).	
	Ź	777/
	Yang Xia	
STATE OF Ulah)	
County of Salllake		
		wledged the foregoing instrument to
be his free act and deed this 14	th day of <u>March</u>	20 <u>\</u>
Notery Public MARIE PERINT Constitution RS00 My Constitution Expl State of Cital State of Cital	IS I Notary Public	

RECORDED: 05/06/2016