04-29-2008



EET

4-21-08

Mail Stop Assignment - Recordation Services Director of the United States Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450

Post Office Box 7068 Pasadena, CA 91109-7068

Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof:

3. X	Name of conveying party(ies): Qingyuan Liu, Russell Steel, Scott Packer and Scott Horman Additional name(s) of conveying party(ies) attached: NO Name of conveyance: Assignment	Na Sti	ame and address of receiving party(ies): ame: Smith International, Inc. reet Address: 6740 Hardy Street, Houston, Texas 77032		
Exe	cution Date: March 31, 2008; April 4, 2008; April 9, 2008 and April 14, 2008	Ac	lditional name(s) & address(es) attached? NO		
4.	Application number(s) or patent number(s):				
	If this document is being filed together with a new application is: March 31, 2008; April 4, 2008; April 9, 2008 a	nd Ap			
		_,			
	Additional numbers attached?				
5.	Please return the recorded document and address all correspondence to:	6. To	al number of applications and patents involved		
10.	CHRISTIE, PARKER & HALE, LLP P.O. Box 7068	8. <u>X</u> Depo			
9.	Signature:				
	Date: April 21, 2008		Name: Constantine Marantidis 626/795-9900 M4/83.2888 MARA: 98988821 1214/837 81 + 1318821 Total number of pages including cover sheet, attachments, and document:		
<u>_</u>			attachments, and documents		

PATENT REEL: 020889 FRAME: 0338

ASSIGNMENT

WHEREAS, WE, Qingyuan Liu, Russell Steel, Scott Packer, and Scott Horman, residing at 57 East 400 North Apartment 3, Provo, Utah 84606; 667 South 420 East, Salem, Utah 84653; 302 Wood Drive, Alpine, Utah 84004; and 67 South 900 East, Lindon, Utah 84042; respectively, have invented certain new and useful improvements disclosed in an application for United States Letters Patent entitled TUNGSTEN RHENIUM COMPOUNDS AND COMPOSITES AND METHODS FOR FORMING THE SAME, and executed by us on even date herewith;

AND WHEREAS SMITH INTERNATIONAL, INC., a Delaware Corporation, having a place of business at 16740 Hardy Street, Houston, Texas 77032 (hereafter, together with any successors, legal representatives or assigns thereof, called "ASSIGNEE") wants to acquire the entire right, title and interest in and to said improvements and application.

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned, transferred and set over, and do hereby sell, assign, transfer and set over to ASSIGNEE the entire right, title and interest in and to said improvements, and said application and all divisions and continuations thereof, and all United States Letters Patents which may be granted thereon and all reissues, reexaminations and extensions thereof, including the right to sue or otherwise bring action and to collect and receive damages therefrom, for past infringement thereof, and all priority rights under all available International Agreements, Treaties and Conventions for the protection of intellectual property in its various forms in every participating country, and all applications for patents (including related rights such as utility-model registrations, inventor's certificates, and the like) heretofore or hereafter filed for said improvements in any foreign countries, and all patents (including all continuations, divisions, extensions, renewals, substitutes, and reissues thereof) granted for said improvements in any foreign countries; and we hereby authorize and request the United States Commissioner of Patents and Trademarks, and any officials of foreign countries whose duty it is to issue patents on applications as aforesaid, to issue all patents for said improvements to ASSIGNEE in accordance with the terms of this Assignment;

AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith;

AND WE HEREBY further covenant and agree that we will communicate to ASSIGNEE any facts known to us respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute and reissue applications, make all rightful oaths and generally do everything possible to aid ASSIGNEE to obtain and enforce proper patent protection for said improvements in all countries.

Page 1 of 4

IN TESTIMONY WHEREOF, I hereunto se $20 \ \underline{v} \ \underline{\%}$.	t my hand this $3/th$ day of March,
	Qingyuan Liu
STATE OF CALIFORNIA whah) COUNTY OF LITAH)	Z.,, a 2
evidence to be the person whose name is subse	me, Sharmae Gilg-en Liu, who proved to me on the basis of satisfactory cribed to the within instrument and acknowledged orized capacity, and that by his signature on the
instrument the person, or the entity upon binstrument.	pehalf of which the person acted, executed the
I certify under PENALTY OF PERJURY ur foregoing paragraph is true and correct.	nder the laws of the State of California that the
	WITNESS my hand and official seal.
Notary Public SHARMAE W. GILGEN 492 W. 1300 N. American Fork, UT 84003 My Commission Expires May 23, 2009	Signature of Notary (Seal)
State of Utah ****	*****
IN TESTIMONY WHEREOF, I hereunto set 20 <u>08</u> .	my hand this 4 day of April,
	Russell Steel
STATE OF CALIFORNIA Wash) COUNTY OF Wash)	
On April 4, 2008 before	me, Sharmae Gilgen
Makey Dublic norganally anneared Russell Ste	eel, who proved to me on the basis of satisfactory ribed to the within instrument and acknowledged

Page 2 of 4

PATENT REEL: 020889 FRAME: 0340 to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Notary Public SHARMAÉ W. GILGEN 492 W. 1300 N. American Fork, UT 84003 My Commission Expires May 23, 2009 State of Utah

WITNESS my hand and official seal.

Sarval W. Glgen Signature of Notary

(Seal)

IN TESTIMONY WHEREOF, I hereunto set my hand this 20 08.

Scott Packer

STATE OF CALIFORNIA PHAL COUNTY OF White

On April 9, 7008 before me, Sharmac Gilgen

Notary Public, personally appeared Scott Packer, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Notary Public SHARMAE W. GILGEN 492 W. 1300 N. American Fork, UT 84063 Commission Expires May 23, 2009 State of Utah

WITNESS my hand and official seal.

Signature of Notary

Page 3 of 4

IN TESTIMONY WHEREOF, I hereunto set my 200%.	hand this 14th day of APEL,
	Self Marin
	Scott Horman
STATE OF CALIFORNIA 4/24) COUNTY OF Wah)	
Notary Public, personally appeared Scott Horsatisfactory evidence to be the person whose name acknowledged to me that he executed the same signature on the instrument the person, or the executed the instrument.	ne is subscribed to the within instrument and in his authorized capacity, and that by his ntity upon behalf of which the person acted,
I certify under PENALTY OF PERJURY under foregoing paragraph is true and correct.	the laws of the State of California that the
	WITNESS my hand and official seal.
	Karrae W. Jilgen
	Signature of Notary (Seal)
CM/scc CMT PAS784167.1-*-03/25/08 6:14 PM	Notary Public SHARMAE W. GILGEN 492 W. 1300 N. American Fork, UT 84003 My Commission Expires May 23, 2009 May 23, 2009
	State of Utah

PATENT REEL: 020889 FRAME: 0342

RECORDED: 04/21/2008