

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Daqing Wu	07/12/2010
RECEIVING PARTY DATA	
Name:	Philip Morris USA Inc.
Street Address:	6601 West Broad Street
City:	Richmond
State/Country:	VIRGINIA
Postal Code:	23230
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	12612881
CORRESPONDENCE DATA	
Fax Number:	(703)836-2021
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Phone:	703-836-6620
Email:	laura.blair@bipc.com
Correspondent Name:	BUCHANAN INGERSOLL & ROONEY PC
Address Line 1:	1737 KING STREET
Address Line 2:	SUITE 500
Address Line 4:	ALEXANDRIA, VIRGINIA 22314
ATTORNEY DOCKET NUMBER:	1021238-000932
NAME OF SUBMITTER:	Peter K. Skiff
Total Attachments: 4 source=ASSIGNMENT#page1.tif source=ASSIGNMENT#page2.tif source=ASSIGNMENT#page3.tif source=ASSIGNMENT#page4.tif	

OP \$40.00 12612881

PATENT

501269155

REEL: 024871 FRAME: 0389

ASSIGNMENT
(JOINT)

THIS ASSIGNMENT, by 1) Georgios D. Karles, 2) Daqing Wu and 3) Shuzhong Zhuang (hereinafter referred to as "the Assignors"), residing at 1) 11829 Summer Stream Drive, Richmond, VA 23233, 2) 920 Rockbass Road, Suwanee, GA 30024 and 3) 9504 Meadowview Road, Richmond, VA 23294, respectively, witnesseth:

WHEREAS, the Assignors have made certain new and useful inventions in METHODS AND COMPOSITIONS FOR PRODUCING HYDROGEN CAPSULES COATED FOR LOW PERMEABILITY AND PHYSICAL INTEGRITY set forth in an application for Letters Patent of the United States of America, [] having an oath or declaration executed on even date herewith; [X] bearing Serial No. 12/612,881, and filed on November 5, 2009; and

WHEREAS, PHILIP MORRIS USA INC., a corporation duly organized under and pursuant to the laws of the State of Virginia and having an office and place of business at 6601 West Broad Street, Richmond, VA 23230, is desirous of acquiring the entire right, title, and interest in and to the inventions for the United States and the application for Letters Patent of the United States, and in and to any United States Letters Patent or Patents, to be obtained therefor and thereon; and

WHEREAS, PHILIP MORRIS PRODUCTS S.A. (formerly known as Fabriques de Tabac Reunies S.A.), a corporation organized and existing under the laws of Switzerland and having an office and place of business at Quai Jeanrenaud 3, CH-2000, Neuchâtel, Switzerland, is desirous of acquiring the entire right, title, and interest in and to the inventions for countries foreign to the United States, and in and to any foreign patent applications, and in and to any foreign Letters Patent or Patents to be obtained therefor and thereon; and

NOW, THEREFORE, be it known that for and in consideration of the sum of One Dollar (\$1.00) to each of us paid and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged:

ASSIGNMENT OF
UNITED STATES PATENT RIGHTS

We do hereby sell, assign and transfer unto PHILIP MORRIS USA INC., its successors, assigns and legal representatives, all right, title, and interest in and to the inventions, for the United States, and in and to the United States patent application, including any continuations and divisions thereof, and any substitute applications therefor and any United States patents which may issue thereon and any reissues and extensions of the same; and we hereby authorize and request the Commissioner of Patents to grant and issue any and all patents on the inventions in the United States to PHILIP MORRIS USA INC. as the assignee thereof.

ASSIGNMENT OF
FOREIGN PATENT RIGHTS

Further in view of the consideration hereinabove referred to, we do hereby sell, assign, and transfer unto PHILIP MORRIS PRODUCTS S.A., its successors, assigns and legal representatives, all right, title and interest in and to the inventions for all countries foreign to the United States, including the right to claim priority under the International Convention based on the United States patent application, and in and to any foreign patent application, including renewals, revivals, continuations and divisions thereof, and any substitute applications therefor, and any foreign patents which may issue thereon, and any reissues and extensions of the same; and we hereby authorize and request competent authorities to grant and issue any and all patents on the inventions in any foreign country to PHILIP MORRIS PRODUCTS S.A. as the assignee thereof.

We further agree to execute upon request of the assignee PHILIP MORRIS USA INC. such additional documents, if any, as are necessary and proper to secure patent protection on the inventions in the United States, and to execute upon request of assignee PHILIP MORRIS PRODUCTS S.A. such additional documents, if any, as are necessary and proper to secure patent protection on the inventions in countries foreign to the United States, and to otherwise give full effect to and perfect the rights of the assignee PHILIP MORRIS USA INC. in the United States and of assignee PHILIP MORRIS PRODUCTS S.A. in countries foreign to the United States.

AND for the same consideration, the Assignors hereby covenant and agree to and with the assignees, their successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions and any and all applications for Letters Patent above-mentioned, and that the same are unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignors hereby covenant and agree to and with the assignees, their successors, legal representatives, and assigns, that the Assignors will, whenever counsel of the assignees, or counsel of their successors, legal representatives, and assigns, shall advise that any proceeding in connection with the inventions or any and all applications for Letters Patent, or any proceeding in connection with Letters Patent for the inventions in any country, including interference proceedings, is lawful and desirable, or that any division, continuation, or continuation-in-part of any application for Letters Patent, or any reissue or extension of any Letters Patent to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent for the inventions, without charge to the assignees, their successors, legal representatives, and assigns, but at the cost and expense of the assignees, their successors, legal representatives, and assigns;

IN TESTIMONY THEREOF, we have hereunto signed our names on the dates hereinafter indicated:

Date _____

Name of Assignor _____

Georgios D. Karles

STATE OF VIRGINIA)

: ss

CITY OF RICHMOND)

On this _____ day of _____, 2010, appeared before me in person the above-named individual, and acknowledged the above to be his signature and that he signed, sealed and delivered the above instrument as his voluntary act and deed, and for the uses and purposes therein set forth.

My Commission Expires: _____

NOTARY PUBLIC

(Notarial Seal)

Date 12-July-2010

Name of Assignor _____

Daqing Wu
Daqing Wu

STATE OF VIRGINIA)

: ss

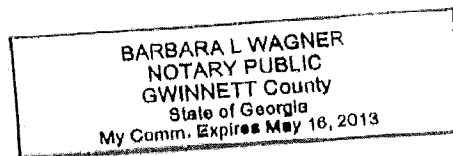
CITY OF RICHMOND)

On this 12 day of July, 2010, appeared before me in person the above-named individual, and acknowledged the above to be his signature and that he signed, sealed and delivered the above instrument as his voluntary act and deed, and for the uses and purposes therein set forth.

My Commission Expires: _____

Barbara L. Wagner
NOTARY PUBLIC

(Notarial Seal)



Date _____

Name of Assignor _____

Shuzhong Zhuang

STATE OF VIRGINIA)

: ss

CITY OF RICHMOND)

On this _____ day of _____, 2010, appeared before me in person the above-named individual, and acknowledged the above to be his signature and that he signed, sealed and delivered the above instrument as his voluntary act and deed, and for the uses and purposes therein set forth.

My Commission Expires:

NOTARY PUBLIC

(Notarial Seal)