PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Munmaya K. Mishra	06/10/2011
Shengsheng Liu	10/14/2011
William R. Sweeney	06/10/2011
Peter J. Lipowicz	08/03/2011

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:	13072166

CORRESPONDENCE DATA

 Fax Number:
 (703)836-2021

 Phone:
 703-836-6620

 Email:
 ADIPFDD@bipc.com

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

via US Mail.

Correspondent Name: BUCHANAN, INGERSOLL & ROONEY PC

Address Line 1: POST OFFICE BOX 1404

Address Line 4: ALEXANDRIA, VIRGINIA 22313-1404

ATTORNEY DOCKET NUMBER: 1021238-000979

NAME OF SUBMITTER: Peter K. Skiff

Total Attachments: 8

PATENT REEL: 027088 FRAME: 0804 P \$40.00 1307216

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PATENT REEL: 027088 FRAME: 0805

PM2442 UTIL Buchanan Ingersoll & Rooney PC Attorney Docket Nos. 1021238-000979

ASSIGNMENT (JOINT)

THIS ASSIGNMENT, by 1) Munmaya K. Mishra, 2) Shengsheng Liu, 3) William R. Sweeney and 4) Peter J. Lipowicz (hereinafter referred to as "the Assignors"), residing at 1) 1631 Sabot Creek Drive, Manakin Sabot, VA 23103, 2) 11812 Coolwind Lane, Richmond, VA 23233, 3) 8242 Marwood Drive, Richmond, VA 23235 and 4) 6003 Sedgefield Terrace, Midlothian, VA 23112, respectively, witnesseth:

WHEREAS, the Assignors have made certain new and useful inventions in <u>BIOPOLYMER FOAMS AS FILTERS FOR SMOKING ARTICLES</u> 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. <u>13/072,166</u>, and filed on <u>March 25, 2011</u>; 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;

	ve hereunto signed our names on the dates hereinafter
indicated:	N D VI
Date 6/10-Pi	Name of Assignor
	Munmaya K. Mishra
STATE OF VIRGINIA)	
: ss CITY OF RICHMOND)	
On this 1() day of 10	1011, appeared before me in person
the above-named individual, and acl	snowledged the above to be his signature and that he
	ve instrument as his voluntary act and deed, and for the
uses and purposes therein set forth.	$() \circ (\circ \circ) \circ (\circ \circ \circ)$
My Compassion Expirele Basi Durha	m llay B. Coll
Commonwealth of Virgi	NOTARY PUBLIC
(Notantal Commission No. 33730 My Commission Expires 11/30	3/2012
Wy	
Date	Name of Assignor
	Shengsheng Liu
STATE OF VIRGINIA)	F.
: ss	
CITY OF RICHMOND)	
On thisday of	, 2011, appeared before me in person
the above-named individual, and ac	knowledged the above to be his signature and that he
signed, sealed and delivered the abouses and purposes therein set forth.	ve instrument as his voluntary act and deed, and for the
My Commission Expires:	
zy -o-minoston zingmoor	NOTARY PUBLIC
(Notarial Seal)	

Date _	6/10/11	Name of Assignor	William R. Sweeney
STATI	E OF VIRGINIA)		
the abo	OF RICHMOND) On this day of the control of t	of JUNC., and acknowledged the above d the above instrument as his	2011, appeared before me in person to be his signature and that he columntary act and deed, and for the
My Co	The Committee of the Co		ARY PUBLIC
Date .	August 3	201/ Name of Assignor	Peter J. Lipowicz
STAT	E OF VIRGINIA)		
CITY	OF RICHMOND)		
signed uses a	, sealed and delivered and purposes therein sometimes ion Expires in Commission Expires	al, and acknowledged the above of the above instrument as his set forth.	2011, appeared before me in person e to be his signature and that he voluntary act and deed, and for the TARY PUBLIC

PM2442 UTIL Buchanan Ingersoll & Rooney PC Attorney Docket Nos. 1021238-000979

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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 h indicated:	ave hereunto signed o	ur names on the dates hereinafter
Date	Name of Assignor	
Date	- · · · · · · · · · · · · · · · · · · ·	Munmaya K. Mishra
STATE OF VIRGINIA)		
CITY OF RICHMOND)		
On this day of the above-named individual, and ac signed, sealed and delivered the abo uses and purposes therein set forth.	ove instrument as his v	2011, appeared before me in person e to be his signature and that he voluntary act and deed, and for the
My Commission Expires:	NOT	CARY PUBLIC
(Notarial Seal)		
Date (0/14/2011	Name of Assignor	Shengsheng Liu
STATE OF VIRGINIA) : ss CITY OF RICHMOND)		
*	cknowledged the above instrument as his NO	2011, appeared before me in person re to be his signature and that he voluntary act and deed, and for the TARY PUBLIC

Date	Name of Assignor	
The state of the s	<u> </u>	William R. Sweeney
STATE OF VIRGINIA)		
CITY OF RICHMOND)		
On this day of the above-named individual, and ac signed, sealed and delivered the abo uses and purposes therein set forth.	knowledged the abovove instrument as his	2011, appeared before me in person e to be his signature and that he voluntary act and deed, and for the
My Commission Expires:	NO"	FARY PUBLIC
(Notarial Seal)		
Date	Name of Assignor	Peter J. Lipowicz
STATE OF VIRGINIA) : ss CITY OF RICHMOND)		•
the above-named individual, and ac	ove instrument as his	2011, appeared before me in person to be his signature and that he voluntary act and deed, and for the
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(Notarial Seal)		

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