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
Kathryne E. Paine	11/01/2011
John B. Paine	11/01/2011
Shengsheng Liu	10/14/2011

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:	13071751

CORRESPONDENCE DATA

 Fax Number:
 (703)836-2021

 Phone:
 703-836-6620

 Email:
 adipdoc1@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: 1021238-000777

NAME OF SUBMITTER: Peter K. Skiff

Total Attachments: 6

PATENT REEL: 027169 FRAME: 0690 OP \$40.00 13071751

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PATENT REEL: 027169 FRAME: 0691

PM2270 UTIL Buchanan Ingersoll & Rooney PC Attorney Docket Nos. 1021238-000777

ASSIGNMENT (JOINT)

THIS ASSIGNMENT, by 1) Munmaya K. Mishra, 2) Kathryne E. Paine, 3) John B. Paine and 4) Shengsheng Liu (hereinafter referred to as "the Assignors"), residing at 1) 1631 Sabot Creek Drive, Manakin Sabot, VA 23103, 2) 13630 Trilithon Road, Midlothian, VA 23113, 3) 13630 Trilithon Road, Midlothian, VA 23113 and 4) 11812 Coolwind Lane, Richmond, VA 23233, respectively, witnesseth:

WHEREAS, the Assignors have made certain new and useful inventions in SMOKING ARTICLES CONTAINING POLYMERS OF POLYCARBOXYLIC ACID ESTERS 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. 13/071,751, and filed on March 25, 2011; 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.

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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:	W B
Date 6 frof	Name of Assignor le kal
	Munmaya K. Mishra
STATE OF VIRGINIA)	
CITY OF RICHMOND)	
the above-named individual, and ack	, 2011, appeared before me in person mowledged the above to be his signature and that he we instrument as his voluntary act and deed, and for the NOTARY PUBLIC
Date	Name of Assignor Kathryne E. Paine
STATE OF VIRGINIA) : ss	Kaunyne B. Fanie
CITY OF RICHMOND)	
the above-named individual, and acl	, 2011, appeared before me in person cnowledged the above to be his signature and that he ve instrument as his voluntary act and deed, and for the
My Commission Expires:	NOTARY PUBLIC
(Notarial Seal)	NOIARI FUBLIC

IN TESTIMONY THEREOF, we have hereunto signed our names on the dates hereinafter indicated: Name of Assignor Munmaya K. Mishra STATE OF VIRGINIA) CITY OF RICHMOND) On this <u>A</u> day of <u>Novern be</u>, 2011, 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: Dec 31,2014 (Notarial Seal) Date Nov. 1 2011 Name of Assignor Kathryne E. Paine STATE OF VIRGINIA) CITY OF RICHMOND) On this day of November, 2011, 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: Dec 31, 2014 (Notarial Seal) MICHAEL SANDHU NOTARY PUBLIC REGISTRATION # 734411 OMMONWEALTH OF VIRGINIA MY COMMISSION EXPIRES DECEMBER 31, 2014

Date <u>NOV. 1, 2011</u>	Name of Assignor	John B. Paine III
STATE OF VIRGINIA)		
CITY OF RICHMOND ; ss		
On this day of day of the above-named individual, and ac signed, sealed and delivered the abouses and purposes therein set forth. My Commission Expires: Dec 3 Notaria Sal	knowledged the above ove instrument as his volument.	2011, appeared before me in person e to be his signature and that he voluntary act and deed, and for the CARY PUBLIC
Date	Name of Assignor	
		Shengsheng Liu
STATE OF VIRGINIA)		
: ss 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:	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ 	
(Notarial Seal)	гои	TARY PUBLIC

Date	Name of Assignor	
		John B. Paine
STATE OF VIRGINIA)		
: ss		
CITY OF RICHMOND)		
On this day of the above-named individual, and ac signed, sealed and delivered the ab uses and purposes therein set forth.	ove instrument as his y	011, appeared before me in person to be his signature and that he oluntary act and deed, and for the
My Commission Expires:	NOT	ARY PUBLIC
(Notarial Seal)		
Date o y 20 \ STATE OF VIRGINIA)	Name of Assignor	Slengthery Cin Shengsheng Liu
; SS		
CITY OF RICHMOND)		
On this day of the above-named individual, and a signed, sealed and delivered the abuses and purposes therein set forth	cknowledged the above pove 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:	TON	CARY PUBLIC
(No Seal) Danlelle Basl Durha Commonwealth of Virg Notary Public Commission No. 33730 My Commission Expires 11/30	inia 3	

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RECORDED: 11/03/2011