

Substitute for Form PTO-1595

Recordation Form Cover Sheet **PATENTS ONLY**

Attorney's Docket No. 1021238-000609

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. **Name of conveying party(ies):**
Mohammed Samy Sayed El Shall and Sarojini Deevi
2. **Name and address of receiving party(ies):**
PHILIP MORRIS USA, 6601 West Broad Street, Richmond, VA 23230
3. **Nature of Conveyance/Execution Date(s):**
Execution Date(s): 07/14/06 and 01/13/06, respectively

- | | |
|---|--|
| <input checked="" type="checkbox"/> Assignment
<input type="checkbox"/> Security Agreement
<input type="checkbox"/> Joint Research Agreement
<input type="checkbox"/> Government Interest Agreement
<input type="checkbox"/> Other: _____ | <input type="checkbox"/> Executive Order 9424 Confirmatory License
<input type="checkbox"/> Merger
<input type="checkbox"/> Change of Name |
|---|--|

4. **Application or patent number(s):**

A. Patent Application No.(s) 11/252,773	B. Patent No.(s) [List Patent Numbers here]
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☐ This document is being filed together with a new application.

5. **Name and address to whom correspondence concerning document should be mailed:**

Name: Peter K. Skiff
 Address: Buchanan Ingersoll & Rooney pc
 Customer Number 21839
 P.O. Box 1404
 Alexandria, VA 22313-1404

6. **Total number of applications and patents involved:** ONE

7. **Total fee (37 CFR 1.21(h) & 3.41) \$ 40**

<input type="checkbox"/>	Authorized to be charged by credit card. PTO Form 2038 attached.
<input checked="" type="checkbox"/>	Authorized to be charged to deposit account 02-4800
<input type="checkbox"/>	Enclosed.
<input type="checkbox"/>	None required (gov't interest not affecting title)

8.

Signature:

Peter K. Skiff
 Signature

31917

Reg. No.

July 17, 2006

Date

Peter K. Skiff
 Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

1

PM 2140 UTIL
BURNS, DOANE, SWECKER & MATHIS, L.L.P.
Attorney Docket Nos. 021238-609

ASSIGNMENT
(JOINT)

THIS ASSIGNMENT, by 1) Mohamed Samy Sayed El-Shall and 2) Sarojini Deevi (hereinafter referred to as "the Assignors"), residing at 1) 9101 Cardiff Road, Richmond, VA 23236 and 2) 12642 Grendon Drive, Midlothian, VA 23113, respectively, witnesseth:

WHEREAS, the Assignors have made certain new and useful inventions in PALLADIUM-CONTAINING NANOSCALE CATALYSTS 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. 11/252,773, and filed on October 19, 2005; 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

7/14/2006

Name of Assignor

M. Samy El Shall
Mohamed Samy Sayed El Shall

STATE OF VIRGINIA)

: ss

CITY OF RICHMOND)

On this 14 day of July, 2006, 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:

Nov. 30, 2008

Daniel B. Durham
NOTARY PUBLIC

(Notarial Seal)

Date

Jan 13, 06 ✓

Name of Assignor

Sarojini D Devi ✓
Sarojini D Devi

STATE OF VIRGINIA)

: ss

CITY OF RICHMOND)

On this 13 day of January, 2006, 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:

Nov. 13, 2007

Daniel B. Durham
NOTARY PUBLIC

(Notarial Seal)