PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Encai Hao	05/21/2012
Kurt C. Melancon	07/18/2012
Audrey A. Sherman	05/30/2012
William Blake Kolb	06/01/2012
Robert F. Kamrath	05/30/2012
Maureen A. Kavanagh	05/30/2012
Chris J. Tanley	06/02/2012
Jeffrey A. Peterson	05/30/2012

RECEIVING PARTY DATA

Name:	3M INNOVATIVE PROPERTIES COMPANY
Street Address:	P.O. BOX 33427
City:	SAINT PAUL
State/Country:	MINNESOTA
Postal Code:	55133-3427

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	13512984	

CORRESPONDENCE DATA

 Fax Number:
 6517363833

 Phone:
 651-733-1500

 Email:
 amzontelli@mmm.com

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

via US Mail.

Correspondent Name: 3M INNOVATIVE PROPERTIES COMPANY

Address Line 1: PO BOX 33427

Address Line 4: ST. PAUL, MINNESOTA 55133-3427

PATENT

REEL: 028630 FRAME: 0167

502000698

ATTORNEY DOCKET NUMBER:	67372US002
NAME OF SUBMITTER:	Angela M. Zontelli
Total Attachments: 12 source=AssignmentSigned_66013US005#page1.tif source=AssignmentSigned_66013US005#page2.tif source=AssignmentSigned_66013US005#page3.tif source=AssignmentSigned_66013US005#page4.tif source=AssignmentSigned_66013US005#page5.tif source=AssignmentSigned_66013US005#page6.tif source=AssignmentSigned_66013US005#page7.tif source=AssignmentSigned_66013US005#page8.tif source=AssignmentSigned_66013US005#page9.tif source=AssignmentSigned_66013US005#page9.tif source=AssignmentSigned_66013US005#page10.tif source=AssignmentSigned_66013US005#page11.tif source=AssignmentSigned_66013US005#page12.tif	

PATENT REEL: 028630 FRAME: 0168

Case No.: 66013US005

ASSIGNMENT OF APPLICATION

Whereas I/we, the below named inventor(s), with residence and citizenship as indicated below, have made an invention in			
	NANO-POROUS ADHESIVE TIE LAYER		
	for which an application for a United States Patent is being filed contemporaneously herewith; for which an application for a United States Patent identified as U.S. Patent Application No., was filed on;		
\boxtimes	which application is identified as PCT International Patent Application No. PCT/US2010/058195; filed November 29, 2010:		

Now, therefore, for good and valuable consideration, receipt of which is acknowledged, I/we have agreed to assign and transfer and do hereby assign and transfer unto the 3M INNOVATIVE PROPERTIES COMPANY, a wholly-owned subsidiary of 3M COMPANY, and a corporation of Delaware, having its principal office at Saint Paul, Minnesota, its successors and assigns, the entire right, title, and interest in and to the said invention and application, and in and to any division or continuation (in whole or in part) of said application, and in and to any and all improvements in the said invention made by me or made jointly with others (provided any such improvement is made during, or within one year after the termination of, my employment with 3M COMPANY and any of its existing or future subsidiaries), and in and to any and all Letters Patent, reexaminations, reissues, or extensions thereof, of the United States of America and countries foreign thereto (including the right to apply for Letters Patent, Utility Models, or Inventors' Certificates in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), which have been or may be granted thereon or on any divisional, continuation (in whole or in part), renewal, reexamination, reissue, or other or further application based in whole or in part upon the said invention or improvements thereon, to be held and enjoyed as fully and exclusively as they would have been by me/us had this assignment and transfer not been made;

I/We do further agree for myself/ourselves and for my/our heirs, executors, and administrators, to execute and deliver without further consideration any further applications, assignments, and documents, and to perform such other acts as I/we lawfully may, that may be deemed necessary by said Company, its successors, assigns, and nominees, fully to secure its right, title, and interest as aforesaid and to obtain or maintain Letters Patent, Utility Models, or Inventors' Certificates in any and all countries; and

I/We do hereby authorize and request the Commissioner of Patents to issue any and all Letters Patent which may be granted upon any of the said applications, to said 3M Innovative Properties Company, as the assignee of the entire right, title, and interest therein.

In witness whereof, I/we have signed my/our name(s) on the day and year set forth below.

Given Name (first and middle [if any]):	Family Name or Surname:	
Encai	Нао	
Inventor's Signature:	Date:	
F	06-5	21-2012
Residence:	Country:	
Woodbury, Minnesota	USA	Citizenship: People's Republic of
	00	China
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ablyn bre Witness	luc	
Witness	Witness	
1430 ICOO 8	Vyiness	
Given Name (first and middle [if any]):	Family Name or Surn	ame:
Kurt C.	Melancon	
Inventor's Signature:	Date:	
Residence:	Country:	Citizenship:
White Bear Lake, Minnesota	USA	United States of America
		1
Witness	Witness	
441113000	AAIII 1622	
Given Name (first and middle [if any]):	Family Name or Surn	ame:
Audrey A.	Sherman	
Inventor's Signature	Date:	
Charl Stran	5-30-	12
Residence:	Country:	Citizenship:
Saint Paul, Minnesota	USA	United States of America
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Witness	Witness ₩	

Assignment

Page 2 of 4

3M Innovative Properties Company, P. O. Box 33427, St. Paul, MN 55133-3427

Case No.: 66013US005

REEL: 028630 FRAME: 0170

Given Name (first and middle [if any]):	Family Name or Surname:	
William Blake	Kolb	
Inventor's Signature	Date:	
	6/1/12	
Residence / Page 1	10	O3:000 03:000
West Lakeland, Minnesota	Country: / / USA	Citizenship: United States of America
***est Lakeianu, iviitinesuta	_ USA	Officer States of Afficia
	get de la companya d	2.11.7.1)
Witness	Witness	
Given Name (first and middle [if any]):	Family Name or Surna	me:
Robert F.	Kamrath	
Inventor's Signature:	Date:	
and a signature	5-30-7	O D
Residence:	Country:	Citizenship:
Mahtomedi, Minnesota	USA	United States of America
97.W 1. To		anninaman.
Witness	Witness///	
Given Name (first and middle [if any]):	Family Name or Surna	me:
Maureen A.	Kavanagh	
Inventor's Signature:	Date:	
maurenakavanaga	5-30-201	<u> </u>
Residence:	Country:	Citizenship:
Stanchfield, Minnesota	USA	United States of America
Witness	Willies A DIV	4/24

Given Name (first and middle [if any]): Chris J.	Family Name or Surname: Tanley		
Inventor's Signature:	Date:		
Residence: Woodbury, Minnesota	Country: USA	Citizenship: United States of America	
Witness	Witness		
Given Name (first and middle [if any]): Jeffrey A.	Family Name of Peterson	r Surname:	
Inventor's Signature:	Date: 5/30	/12	
Residence: Lake Elmo, Minnesota	Country: USA	Citizenship: United States of America	
Mitness To The State of the Sta	Witness	# # # # # # # # # # # # # # # # # # #	

Case No.: 66013US005

ASSIGNMENT OF APPLICATION

Whereas I/we, the below named inventor(s), with residence and citizenship as indicated below, have made an invention in

	NANO-POROUS ADHESIVE TIE LAYER		
	for which an application for a United States Patent is being filed contemporaneously herewith;		
Ш	for which an application for a United States Patent identified as U.S. Patent Application No., was filed on;		
\boxtimes	which application is identified as PCT International Patent Application No. PCT/US2010/058195; filed November 29, 2010;		

Now, therefore, for good and valuable consideration, receipt of which is acknowledged. I/we have agreed to assign and transfer and do hereby assign and transfer unto the 3M INNOVATIVE PROPERTIES COMPANY, a wholly-owned subsidiary of 3M COMPANY, and a corporation of Delaware, having its principal office at Saint Paul, Minnesota, its successors and assigns, the entire right, title, and interest in and to the said invention and application, and in and to any division or continuation (in whole or in part) of said application, and in and to any and all improvements in the said invention made by me or made jointly with others (provided any such improvement is made during, or within one year after the termination of, my employment with 3M COMPANY and any of its existing or future subsidiaries), and in and to any and all Letters Patent. reexaminations, reissues, or extensions thereof, of the United States of America and countries foreign thereto (including the right to apply for Letters Patent, Utility Models, or Inventors' Certificates in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), which have been or may be granted thereon or on any divisional, continuation (in whole or in part), renewal, reexamination, reissue, or other or further application based in whole or in part upon the said invention or improvements thereon, to be held and enjoyed as fully and exclusively as they would have been by me/us had this assignment and transfer not been made;

I/We do further agree for myself/ourselves and for my/our heirs, executors, and administrators. to execute and deliver without further consideration any further applications, assignments, and documents, and to perform such other acts as I/we lawfully may, that may be deemed necessary by said Company, its successors, assigns, and nominees, fully to secure its right, title, and interest as aforesaid and to obtain or maintain Letters Patent, Utility Models, or Inventors' Certificates in any and all countries; and

REEL: 028630 FRAME: 0173

I/We do hereby authorize and request the Commissioner of Patents to issue any and all Letters Patent which may be granted upon any of the said applications, to said 3M Innovative Properties Company, as the assignee of the entire right, title, and interest therein.

In witness whereof, I/we have signed my/our name(s) on the day and year set forth below.

Given Name (first and middle [if any]): Encai	Family Name or Surname: Hao	
Inventor's Signature:	Date:	
Residence: Woodbury, Minnesota	USA	Citizenship: People's Republic of China
Witness	Witness	
Given Name (first and middle [if any]): Kurt C.	Family Name or Surname: Melancon	
Inventor's Signature:	Date:	
Vint C Walance	7//8//2 Country:	
Residence: White Bear Lake, Minnesota		Citizenship: United States of America
Pal Melancon Witness	Witness	at 12/ancon
	Terror and the second and the	
Given Name (first and middle [if any]): Audrey A.	Family Name or Surname: Sherman	
Inventor's Signature:	Date:	
Residence: Saint Paul, Minnesota		Citizenship: United States of America
Witness	Witness	

Assignment

Page 2 of 4

Case No.: 66013US005

Page ∠ 0: 4
3M Innovative Properties Company, P. O. Box 33427, St. Paul, MN 55133-3427
PATENT

Given Name (first and middle [if any]): William Blake	Family Name or Surname: Kolb	
Inventor's Signature:	Date:	
Residence: West Lakeland, Minnesota	Country: USA	Citizenship: United States of America
Witness	Witness	
Given Name (first and middle [if any]): Robert F.	Family Name or Surname: Kamrath	
Inventor's Signature:	Date:	
Residence: Mahtomedi, Minnesota	Country: USA	Citizenship: United States of America
Witness	Witness	
Given Name (first and middle [if any]):	Family Name or	Surname:
Maureen A.	Kavanagh	
Inventor's Signature:	Date:	
Residence: Stanchfield, Minnesota	Country: USA	Citizenship: United States of America
Witness	Witness	

Assignment

Case No.: 66013US005

Given Name (first and middle [if any]): Chris J.	Family Name or Surname: Tanley	
Inventor's Signature:	Date:	
Residence: Woodbury, Minnesota	Country: USA	Citizenship: United States of America
Witness	Witness	
Given Name (first and middle [if any]): Jeffrey A.	Family Name or Surname: Peterson	
Inventor's Signature:	Date:	
Residence: Lake Elmo, Minnesota	Country: USA	Citizenship: United States of America
Witness	Witness	

Case No.: 66013US005

ASSIGNMENT OF APPLICATION

be	Whereas I/we, the below named inventor(s), with residence and citizenship as indicated below, have made an invention in				
	NANO-POROUS ADHESIVE TIE LAYER				
	for which an application for a United States Patent is being filed contemporaneously herewith;				
L	for which an application for a United States Patent identified as U.S. Patent Application No., was filed on ;				
\boxtimes	which application is identified as PCT International Patent Application No. PCT/US2010/058195; filed November 29, 2010;				

Now, therefore, for good and valuable consideration, receipt of which is acknowledged, I/we have agreed to assign and transfer and do hereby assign and transfer unto the 3M INNOVATIVE PROPERTIES COMPANY, a wholly-owned subsidiary of 3M COMPANY, and a corporation of Delaware, having its principal office at Saint Paul, Minnesota, its successors and assigns, the entire right, title, and interest in and to the said invention and application, and in and to any division or continuation (in whole or in part) of said application, and in and to any and all improvements in the said invention made by me or made jointly with others (provided any such improvement is made during, or within one year after the termination of, my employment with 3M COMPANY and any of its existing or future subsidiaries), and in and to any and all Letters Patent, reexaminations, reissues, or extensions thereof, of the United States of America and countries foreign thereto (including the right to apply for Letters Patent, Utility Models, or Inventors' Certificates in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), which have been or may be granted thereon or on any divisional, continuation (in whole or in part), renewal, reexamination, reissue, or other or further application based in whole or in part upon the said invention or improvements thereon, to be held and enjoyed as fully and exclusively as they would have been by me/us had this assignment and transfer not been made;

I/We do further agree for myself/ourselves and for my/our heirs, executors, and administrators, to execute and deliver without further consideration any further applications, assignments, and documents, and to perform such other acts as I/we lawfully may, that may be deemed necessary by said Company, its successors, assigns, and nominees, fully to secure its right, title, and interest as aforesaid and to obtain or maintain Letters Patent, Utility Models, or Inventors' Certificates in any and all countries; and

Case No.: 66013(IS005

I/We do hereby authorize and request the Commissioner of Patents to issue any and all Letters Patent which may be granted upon any of the said applications, to said 3M Innovative Properties Company, as the assignee of the entire right, title, and interest therein.

In witness whereof, I/we have signed my/our name(s) on the day and year set forth below.

Given Name (first and middle [if any]): Encai	Family Name or Surname: Hao	
Inventor's Sign ature :	Date:	
Residence: Woodbury, Minnesota	Country: USA	Citizenship: People's Republic of China
Witness	Witness	
Given Name (first and middle [if any]): Kurt C.	Family Name or Surname: Melancon	
Inventor's Signature:	Date:	
Residence: White Bear Lake, Minnesota	Country: USA	Citizenship: United States of America
Witness	Witness	
Given Name (first and middle [if any]): Audrey A.	Family Name or Sumame: Sherman	
Inventor's Signature:	Date:	
Residence: Saint Paul, Minnesota	Country: USA	Citizenship: United States of America
Witness	Witness	

Assignment

Page 2 of 4
3M Innovative Properties Company, P. O. Box 33427, St. Paul, MN 55133-3427

Case No.: 66013US005

Viness	Witness	
esidence: tanchfield, Minnesota	Country: USA	Citizenship: United States of America
reman a organica e,	Date:	
Siven Name (first and middle [if any]): faureen A. iventor's Signature:	Family Name or Surname: Kavanagh	
Witness	Witness	
Residence: Mahtomedi, Minnesota	Country: USA	Citizenship: United States of America
nventor's Signature:	Date:	
Given N ame (fir st and middle [if any]): Robert F.	Family Name or Surname Kamrath	
Witness	Witness	
Residence: West Lakeland, Minnesota	Country: USA	Citizenship: United States of Americ
Inventor's Signature:	Date:	
Given Name (first and middle (if any)): William Blake	Family Name Kolb	or Surname:

Given Name (first and middle (if any)): Chris J.	Family Name or Surname: Tanley		
inventors Symptone Tarley	Date:		
Residence: Woodbury, Minnesota	Country: * USA	Citizenship: United States of America	
200	Sit.	A)	
Witness	Wiress		
Given Name (first and middle [if any]): Jeffrey A.	Family Name o	a Surname.	
Inventor's Signature	Peterson Date:	Peterson Date:	
Residence: Lake Elmo, Minnesota	Country: USA	Citizenship: United States of America	
Witness	Witness		

Case No.: 660131/8005

RECORDED: 07/25/2012 REEL: 028630 FRAME: 0180