## 505341588 02/22/2019

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5388370

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
JOHN M. SEBASTIAN	01/14/2019
CHRISTOPHER A. HURLEY	01/16/2019
KENNETH J. KREPEL	01/15/2019
PIERRE LEGARE	02/01/2019
FUMING B. LI	02/21/2019
PAUL A. MARTINSON	01/14/2019
BONG Y. YEOM	01/15/2019

#### **RECEIVING PARTY DATA**

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

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16282774

#### **CORRESPONDENCE DATA**

**Fax Number:** (651)736-7586

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 651-733-1500 mmoes@mmm.com

Correspondent Name: 3M INNOVATIVE PROPERTIES COMPANY

Address Line 1: PO BOX 33427

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

ATTORNEY DOCKET NUMBER:	78644US013
NAME OF SUBMITTER:	MONICA J. MOES
SIGNATURE:	/Monica J. Moes/
DATE SIGNED:	02/22/2019

This document serves as an Oath/Declaration (37 CFR 1.63).

#### **Total Attachments: 7**

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Case No:

78644US013

As a below named inventor, I believe I am an original inventor or an original joint inventor of a claimed invention in the application and for which a patent is sought on the invention entitled:

P	LEATED FILTE	R ELEMENT COMPRISING PL METHOD OF MA		ER MEDIA WITH EDGE DAMS, / JSING	AND
The	specification of wh	ich:	***************************************		
	is attached hereto	<u>;</u>			
	was filed on as United States /	Application No.			
	is identified as PC filed on	T International Application No. August 15, 2017		PCT/US2017/046965	
The a	above-identified a	oplication was made or authorized t	o be made by	me.	
		that any willful false statement mad not more than 5 years, or both.	e in this decla	ration is punishable under 18 U.S.C. 1	1001 by
and of assignments of the continuous of the cont	do hereby assign a IOMPANY, and a Ins, the entire righ nuation (in whole in e or made jointly with nation of, my emp Itters Patent, reexo to (including the right name and to claim national convention nuation (in whole of upon the said inve	and transfer unto the 3M INNOVATI corporation of Delaware, having its t, title, and interest in and to the sail or in part) of said application, and in with others (provided any such improvith others (provided any such improvement with 3M COMPANY and assignment with 3M COMPANY and assignment of the same aminations, reissues, or extensions ght to apply for Letters Patent, Utilitically any priority rights for such foreigness, treaties, or otherwise), which has treaties, or otherwise), which has treaties, renewal, reexamination,	VE PROPER' principal office d invention an and to any as overment is ma ny of its existin thereof, of the y Models, or I applications to ve been or ma reissue, or othe held and er	nowledged, I have agreed to assign ar TIES COMPANY, a wholly-owned subset at Saint Paul, Minnesota, its successed application, and in and to any division all improvements in the said invented during, or within one year after the gor future subsidiaries), and in and to united States of America and countroventors' Certificates in foreign countroventors' Certificates	osidiary of sors and on or don made a congrand and and and and and and and and and
consi that n and in	deration any furth nay be deemed no	er applications, assignments, and decessary by said Company, its succ	ocuments, an essors, assig	tors, to execute and deliver without fu d to perform such other acts as I lawfi ns, and nominees, fully to secure its ri Models, or Inventors' Certificates in a	ully may, ight, title,
grant		e said applications, to said 3M Inno		any and all Letters Patent which may ies Company, as the assignee of the o	
Lega	al Name of Invent	)L: 	ococaraces per arconscensors		***************************************
Joh	ın M. Sebastia	វា			annin i
inve	ntor's Signature:	1 Status	Date:	- 14 - 2019	

Case No:

78644US013

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PLEATED FILTE	R ELEMENT COMPRISING PLE METHOD OF MAK		R MEDIA WITH EDGE DAMS, AND ING
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is attached hereto	<b>)</b> ;		
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is identified as PC filed on	T International Application No. August 15, 2017		PCT/US2017/046965
The above-identified a	pplication was made or authorized to	be made by me	<b>a</b> .
I hereby acknowledge fine or imprisonment o	that any wiliful false statement made f not more than 5 years, or both.	in this declarati	on is punishable under 18 U.S.C. 1001 by
and do hereby assign and COMPANY, and a assigns, the entire righ continuation (in whole by me or made jointly termination of, my empall Letters Patent, reex thereto (including the rown name and to claim international conventio continuation (in whole part upon the said inve	and transfer unto the 3M INNOVATING corporation of Delaware, having its port, title, and interest in and to the said or in part) of said application, and inwith others (provided any such improphoyment with 3M COMPANY and any aminations, reissues, or extensions tight to apply for Letters Patent, Utility any priority rights for such foreign ans, treaties, or otherwise), which have or in part), renewal, reexamination, re	/E PROPERTIE orincipal office a invention and a and to any and a weenent is made by of its existing of the U Models, or Inverse been or may be sue, or other a held and enjoy	riedged, I have agreed to assign and transfer S COMPANY, a wholly-owned subsidiary of t Saint Paul, Minnesota, its successors and application, and in and to any division or all improvements in the said invention made during, or within one year after the or future subsidiaries), and in and to any and nited States of America and countries foreign entors' Certificates in foreign countries in its hich such applications are entitled under one granted thereon or on any divisional, or further application based in whole or in red as fully and exclusively as they would
consideration any furth that may be deemed n	er applications, assignments, and do ecessary by said Company, its succe	ocuments, and to essors, assigns,	s, to execute and deliver without further perform such other acts as I lawfully may, and nominees, fully to secure its right, title, odels, or Inventors' Certificates in any and all
	e said applications, to said 3M Innov		y and all Letters Patent which may be Company, as the assignee of the entire right,
Legal Name of Invent	ÖF.		
Christopher A. H	urley		
Inventor's Signature:		Date:	P105 2019

Case No:

78644US013

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*	PLEATED FILTE	R ELEMENT COMPRISING PLE METHOD OF MAI		:R MEDIA WITH EDGE DAMS, AND SING
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The	above-identified as	plication was made or authorized to	o be made by r	ne.
In and and 3M (assisted the second term all Little the second term own term	ddition, for good and do hereby assign a COMPANY, and a right invation (in whole of the company	and transfer unto the 3M INNOVATI corporation of Delaware, having its at title, and interest in and to the said in part) of said application, and in with others (provided any such improsorment with 3M COMPANY and argument for such foreign any priority rights for such foreign and priority rights for such foreign and part), renewal, reexamination, and corporation, and corporation and corporation.	VE PROPERT principal office of invention and and to any and overnent is made of its existing thereof, of the y Models, or In applications to be been or made held and enjection of the polication of the pelication of the pelicatio	wledged, I have agreed to assign and transfer IES COMPANY, a wholly-owned subsidiary of at Saint Paul, Minnesota, its successors and application, and in and to any division or d all improvements in the said invention made de during, or within one year after the g or future subsidiaries), and in and to any and United States of America and countries foreign ventors' Certificates in foreign countries in its which such applications are entitled under y be granted thereon or on any divisional, are or further application based in whole or in oyed as fully and exclusively as they would
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grar	hereby authorize a nted upon any of the , and interest therei	e said applications, to said 3M Inno	itents to issue a vative Propertia	any and all Letters Patent which may be as Company, as the assignee of the entire righ
Le	gal Name of Invent	O.C.		
K	enneth J. Krepe	31		
Inv	ventor's Signature:		Date:	
	Kenneth 11	Cycl	J.	nd 15, 2019

**PATENT** 

REEL: 048408 FRAME: 0490

Case No:

78644US013

As a below named inventor, I believe I am an original inventor or an original joint inventor of a claimed invention in the application and for which a patent is sought on the invention entitled:

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The specification of w	mich:	***************************************		
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I hereby acknowledge fine or imprisonment	e that any willful false statement mad of not more than 5 years, or both.	e in this declar	ation is punishable under 18 U.S.C	i. 1001 by
and do hereby assign 3M COMPANY, and a assigns, the entire rig continuation (in whole by me or made jointly termination of, my err all Letters Patent, ree thereto (including the own name and to clai international conventi continuation (in whole part upon the said inv have been by me had I do further agree for consideration any furt that may be deemed	and transfer unto the 3M INNOVATI and transfer unto the 3M INNOVATI a corporation of Delaware, having its ht, title, and interest in and to the sail or in part) of said application, and in with others (provided any such impripility of the sail application, and an examinations, reissues, or extensions right to apply for Letters Patent, Utility on any priority rights for such foreign ons, treaties, or otherwise), which has or in part), renewal, reexamination, ention or improvements thereon, to be this assignment and transfer not be myself and for my heirs, executors, a her applications, assignments, and decessary by said Company, its succession and to obtain or maintain Letters	IVE PROPERT principal office d invention and and to any an overnent is many of its existing thereof, of the applications to the been or many of the and enjury and administrations are administrations and adm	"IES COMPANY, a wholly-owned so at Saint Paul, Minnesota, its success application, and in and to any division all improvements in the said invested during, or within one year after tog or future subsidiaries), and in and united States of America and countrentors' Certificates in foreign country be granted thereon or on any divider or further application based in which such as fully and exclusively as the ors, to execute and deliver without it is, and nominees, fully to secure its	ubsidiary of essors and sion or ention made the do any and ntries foreign ntries in its do under isional, hole or in ey would further wfully may, a right, title,
	and request the Commissioner of Pa he said applications, to said 3M Inno ∍in.			
Legal Name of Inver	itor:	enenenenen er en	ummananimmanimmanimmanimminimminimminimm	
Pierre Legare				
Inventor's Signature	2	Date:	1 7 - 13	a

PATENT

**REEL: 048408 FRAME: 0491** 

Case No:

78644US013

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**************************************		LEATED FILTER MEDIA WITH EDGE DAMS, AND AKING AND USING
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☐ is attached here	eto;	
was filed on as United State	s Application No.	
is identified as I	CT International Application No. August 15, 2017	PCT/US2017/048966
The above-identified	application was made or authorized	d to be made by me.
	e that any willful faise statement mo of not more than 5 years, or both.	ade in this declaration is punishable under 18 U.S.C. 1001 by
and do hereby assig 3M COMPANY, and assigns, the entire ricontinuation (in who) by me or made joint! termination of, my eral! Letters Patent, rethereto (including the own name and to clainternational conventionation (in who) part upon the said in	n and transfer unto the 3M iNNOVA a corporation of Delaware, having it ght, title, and interest in and to the site or in part) of said application, and y with others (provided any such im apployment with 3M COMPANY and examinations, reissues, or extension or right to apply for Letters Patent, Utilish any priority rights for such foreightions, treaties, or otherwise), which e or in part), renewal, reexamination	of which is acknowledged, I have agreed to assign and transfer TIVE PROPERTIES COMPANY, a wholly-owned subsidiary of its principal office at Saint Paul, Minnesota, its successors and laid invention and application, and in and to any division or in and to any and all improvements in the said invention made provement is made during, or within one year after the any of its existing or future subsidiaries), and in and to any and inside the United States of America and countries foreign tility Models, or Inventors' Certificates in foreign countries in its in applications to which such applications are entitled under have been or may be granted thereon or on any divisional, in, reissue, or other or further application based in whole or in the beld and enjoyed as fully and exclusively as they would been made;
consideration any fulthat may be deemed	ther applications, assignments, and necessary by said Company, its su	, and administrators, to execute and deliver without further I documents, and to perform such other acts as I lawfully may, iccessors, assigns, and nominees, fully to secure its right, title, rs Patent, Utility Models, or Inventors' Certificates in any and al
I do hereby authorize granted upon any of title, and interest the	the said applications, to said 3M Inc	Patents to issue any and all Letters Patent which may be novative Properties Company, as the assignee of the entire righ
Legal Name of Inve	anominana manana ma ntor:	
Fuming B. Li		unann
Inventor's Signature	<b>3</b> :	Date:
Co.	3-J	2/21/2019

Case No:

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I do hereby authoriz granted upon any of title, and interest the	the said applications, to said 3M i	Patents to issue any and all Letters Patent vinovative Properties Company, as the assign	which may be see of the entire righ
Legal Name of Inv	entor		
Paul A. Martin			
Inventor's Signatur		Date:	
	a Maria	1-14-19	

Case No:

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	he said applications, to said 3M Innov		any and all Letters Patent which may be es Company, as the assignee of the entire righ
Legal Name of Inver	ntor:	******************************	
Bong Y. Yeom			
Inventor's Signature	•	Date:	
Day-	4-24-	1-	4-2019

**PATENT REEL: 048408 FRAME: 0494** 

RECORDED: 02/22/2019