### 505511854 06/06/2019

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5558659

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
JAIME A. MARTINEZ	05/17/2019
JING ZHANG	05/20/2019
GEOFFREY I. WILSON	05/16/2019
STACY A. SOMMER	05/08/2019
LOUIS S. MOREN	05/02/2019

#### 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:	16467156

#### **CORRESPONDENCE DATA**

**Fax Number:** (651)736-3833

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 **Email:** pjbick@mmm.com

Correspondent Name: 3M INNOVATIVE PROPERTIES COMPANY

Address Line 1: PO BOX 33427

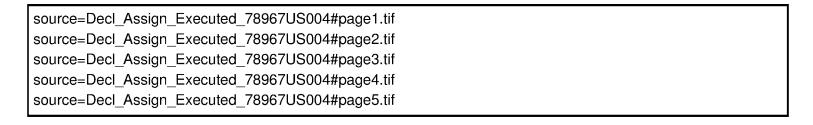
Address Line 4: ST. PAUL, MINNESOTA 55133-3427

ATTORNEY DOCKET NUMBER:	78967US004
NAME OF SUBMITTER:	PAULA J. BICK
SIGNATURE:	/Paula J. Bick/
DATE SIGNED:	06/06/2019
This document serves as an Oath/Declaration (37 CFR 1.63).	
	•

Total Attachments: 5

PATENT REEL: 049392 FRAME: 0059

505511854



Case No:

78967US004

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:

	ABRASIVE ARTICLE AN	D METHOD C	F GRINDING	
The specification of w	hich:			
is attached heret	o;			
was filed on as United States	Application No.			
is identified as Pe	CT International Application No.  December 4, 2017		PCT/US2017/064469	
The above-identified a	application was made or authorized	to be made by m	<b>e</b> .	
In addition, for good a and do hereby assign 3M COMPANY, and a assigns, the entire righ continuation (in whole by me or made jointly termination of, my emigall Letters Patent, reex thereto (including the rown name and to clair international convention continuation (in whole part upon the said invented have been by me had	of not more than 5 years, or both, and valuable consideration, receipt of and transfer unto the 3M INNOVAT corporation of Delaware, having its at, title, and interest in and to the sat or in part) of said application, and i with others (provided any such impoloyment with 3M COMPANY and a saminations, reissues, or extensioning to apply for Letters Patent, Util n any priority rights for such foreign ons, treaties, or otherwise), which have in part), renewal, reexamination, ention or improvements thereon, to this assignment and transfer not be	f which is acknown IVE PROPERTIES principal office a id invention and a nand to any and rovement is made in yof its existing a thereof, of the Unity Models, or Inventional to wave been or may be held and enjoyen made;	viedged, I have agreed to assign and to a COMPANY, a wholly-owned subsidit Saint Paul, Minnesota, its successor application, and in and to any division of all improvements in the said invention of during, or within one year after the or future subsidiaries), and in and to a united States of America and countries entors' Certificates in foreign countries hich such applications are entitled und be granted thereon or on any divisional or further application based in whole oved as fully and exclusively as they we	ransfer liary of s and or made my and foreign in its der al, or in
consideration any furth that may be deemed n	ner applications, assignments, and ecessary by said Company, its suc	documents, and to cessors, assigns,	s, to execute and deliver without furthe o perform such other acts as I lawfully and nominees, fully to secure its right odels, or Inventors' Certificates in any	may, t. title
I do hereby authorize a granted upon any of th title, and interest there	e said applications, to said 3M Inno	atents to issue an vative Properties	y and all Letters Patent which may be Company, as the assignee of the enti	re right,
Legal Name of Invent	or:	· - · · · · · · · · · · · · · · · · · ·		
Jaime A. Martine				
Inventor's Signature:	<u> </u>	Date:		_
· ·	Q. Mostus	5	17/2019	

REEL: 049392 FRAME: 0061

**PATENT** 

Case No:

78967US004

As	a below	w named	inventor,	I believe I	am an	criginal	inventor	or an	original	joint	inventor	of a	claimed	invention	in the
apı	olication	n and for	which a p	atent is so	ught or	n the inv	ention er	ititled:							

	ABRASIVE ARTICLE AI	ND METHOD	OF GRINDING
The specification of w	hich:		
☐ is attached heret	to;		
was filed on			
as United States	Application No.		
NZ salasakan	ZOT LIEU III I GOLD I CANA NA NA INCINC		TOWN I DO AN OW (A A A A A A
filed on	CT International Application No.  December 4, 2017		PCT/US2017/064469
The above-identified a	application was made or authorized	i to be made by	me.
fine or imprisonment of In addition, for good a	of not more than 5 years, or both, and valuable consideration, receipt	of which is ackr	ration is punishable under 18 U.S.C. 1001 by
3M COMPANY, and a assigns, the entire rigicontinuation (in whole by me or made jointly termination of, my em all Letters Patent, resithereto (including the own name and to clair international conventic continuation (in whole part upon the said invitate been by me had	a corporation of Delaware, having it ht, title, and interest in and to the silor in part) of said application, and with others (provided any such imployment with 3M COMPANY and xaminations, reissues, or extension right to apply for Letters Patent, Utim any priority rights for such foreign ons, treaties, or otherwise), which for in part), renewal, reexamination ention or improvements thereon, to this assignment and transfer not be	is principal office aid invention and in any aid provement is may any of its existing the sthereof, of the lifty Models, or I in applications to have been or may be held and ereen made;	TIES COMPANY, a wholly-owned subsidiary of a at Saint Paul, Minnesota, its successors and d application, and in and to any division or and all improvements in the said invention made ade during, or within one year after the ag or future subsidiaries), and in and to any and a United States of America and countries foreign eventors. Certificates in foreign countries in its which such applications are entitled under any be granted thereon or on any divisional, her or further application based in whole or in tipoyed as fully and exclusively as they would
consideration any furt that may be deemed r	her applications, assignments, and necessary by said Company, its sui	documents, an	tors, to execute and deliver without further d to perform such other acts as I lawfully may, ns, and nominees, fully to secure its right, title, Models, or Inventors' Certificates in any and all
I do hereby authorize granted upon any of ti title, and interest there	ne said applications, to said 3M Inn	Patents to issue ovative Propert	any and all Letters Patent which may be ies Company, as the assignee of the entire right
Legal Name of Inven	tor:		
Jing Zhang			
Inventor's Signature:		Date:	
1 1 1	o` ⊗	5/2	20/19

Case No:

78967US004

application and for which a patent is sought or	<u></u>
The second secon	TICLE AND METHOD OF GRINDING
The specification of which:	
Is attached hereto;	
was filed on as United States Application No.	
is identified as PCT International Application  filed on  December 4, 2017	PCT/US2017/064469
The above-identified application was made or	authorized to be made by me.
I hereby acknowledge that any willful false sta fine or imprisonment of not more than 5 years	tement made in this declaration is punishable under 18 U.S.C. 1001 by or both.
and do hereby assign and transfer unto the 3N COMPANY, and a corporation of Delaward assigns, the entire right, title, and interest in a continuation (in whole or in part) of said applic by me or made jointly with others (provided an termination of, my employment with 3M COMF all Letters Patent, reexaminations, reissues, or thereto (including the right to apply for Letters own name and to claim any priority rights for sinternational conventions, treaties, or otherwis continuation (in whole or in part), renewal, ree part upon the said invention or improvements have been by me had this assignment and trail to further agree for myself and for my heirs,	executors, and administrators, to execute and deliver without further
that may be deemed necessary by said Comp	nents, and documents, and to perform such other acts as I lawfully may, any, its successors, assigns, and nominees, fully to secure its right, title, italin Letters Patent, Utility Models, or Inventors' Certificates in any and all
I do hereby authorize and request the Commis granted upon any of the said applications, to s title, and interest therein.	sioner of Patents to issue any and all Letters Patent which may be aid 3M innovative Properties Company, as the assignee of the entire right,
Legal Name of Inventor:	
Geoffrey I. Wilson	
Inventor's Signature:	Date:
Godfry atit	5/16/2019

Case No:

78967US004

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 P	manyor with the filling	ABRASIVE ARTICLE A		OF GRINDING
The	specification of wh			
	is attached hereto			
	was filed on as United States /		·	
		T International Application No.  December 4, 2017		PCT/US2017/064469
The	: above-identified a	pplication was made or authorize	d to be made by	me.
		that any willful false statement m f not more than 5 years, or both.	ade in this decla	ration is punishable under 18 U.S.C. 1001 by
3M assicon by retermal Lither own particular	COMPANY, and a signs, the entire rightinuation (in whole me or made jointly winnering the rectors. Patent, reex reto (including the remational conventionational conventionational in whole tupon the said inverse been by me had	corporation of Delaware, having at, title, and interest in and to the sor in part) of said application, and with others (provided any such imployment with 3M COMPANY and caminations, reissues, or extension of the apply for Letters Patent, Un any priority rights for such foreigns, treaties, or otherwise), which or in part), renewal, reexamination or improvements thereon, this assignment and transfer not	its principal offices and invention and in and to any a supprovement is must be any of its existions thereof, of the lillity Models, or applications to have been or mon, reissue, or ot be held and e been made;	TIES COMPANY, a wholly-owned subsidiary of e at Saint Paul, Minnesota, its successors and ind application, and in and to any division or and all improvements in the said invention made ade during, or within one year after the ingle or future subsidiaries), and in and to any and e United States of America and countries foreign Inventors' Certificates in foreign countries in its o which such applications are entitled under any be granted thereon or on any divisional, her or further application based in whole or in injoyed as fully and exclusively as they would
con that and	isideration any furth t may be deemed n	ner applications, assignments, an necessary by said Company, its s	d documents, al uccessors, assig	ators, to execute and deliver without further and to perform such other acts as I lawfully may, gns, and nominees, fully to secure its right, title, y Models, or Inventors' Certificates in any and all
gra	o hereby authorize a inted upon any of the o, and interest there	ne said applications, to said 3M In	Patents to issumovative Proper	e any and all Letters Patent which may be ties Company, as the assignee of the entire right
Le	egal Name of Invent	tor:		
S	tacy A. Somme	er		
İn	ventor's Signature:	14 Manuel	Date:	1/6)(0)

Case No:

78967US004

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

	ABRASIVE ARTICLE AND METHOD OF GRINDING				
The	specification of which:				
	is attached hereto;	7			
Ш	was filed on as United States Application No.				
	is identified as PCT International Application No.  December 4, 2017	PCT/US2017/064469			

The above-identified application was made or authorized to be made by me.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than 5 years, or both.

In addition, for good and valuable consideration, receipt of which is acknowledged, I 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 had this assignment and transfer not been made;

I do further agree for myself and for my 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 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 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.

Legal Name of Inventor:	
Louis S. Moren	
Inventor's Signature:	Date:
Son Solar	05/02/2019

PATENT REEL: 049392 FRAME: 0065

RECORDED: 06/06/2019