503232595 03/24/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3279213

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
QUNHUI GUO	08/22/2014
CAROL L. KNOX	10/06/2004
TRUMAN WILT	08/22/2014
PETER L. VOTRUBA-DRZAL	08/19/2014
CHARLES F. KAHLE II	08/20/2014
GREGORY J. MCCOLLUM	08/22/2014

RECEIVING PARTY DATA

Name:	PPG INDUSTRIES OHIO, INC.
Street Address:	3800 WEST 143RD STREET
City:	CLEVELAND
State/Country:	ОНЮ
Postal Code:	44111

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14193902

CORRESPONDENCE DATA

Fax Number: (412)945-5933

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: 412-471-8815

Email: assignments@webblaw.com

Correspondent Name: LESTER N. FORTNEY Address Line 1: THE WEBB LAW FIRM

Address Line 2: ONE GATEWAY CENTER, SUITE 1200 PITTSBURGH, PENNSYLVANIA 15222 Address Line 4:

ATTORNEY DOCKET NUMBER:	2576-143923
NAME OF SUBMITTER:	JAMES R. FRANKS, REG. NO. 42,552
SIGNATURE:	/James R. Franks/
DATE SIGNED:	03/24/2015

Total Attachments: 10 source=Recordation_Cover_Sheet_and_Assignment#page1.tif source=Recordation_Cover_Sheet_and_Assignment#page2.tif source=Recordation_Cover_Sheet_and_Assignment#page3.tif source=Recordation_Cover_Sheet_and_Assignment#page4.tif source=Recordation_Cover_Sheet_and_Assignment#page5.tif source=Recordation_Cover_Sheet_and_Assignment#page6.tif source=Recordation_Cover_Sheet_and_Assignment#page7.tif source=Recordation_Cover_Sheet_and_Assignment#page8.tif source=Recordation_Cover_Sheet_and_Assignment#page9.tif source=Recordation_Cover_Sheet_and_Assignment#page9.tif source=Recordation_Cover_Sheet_and_Assignment#page9.tif

RECORDATION FORM COVER SHEET PATENTS ONLY		
To the Director of the U.S. Patent and Trademark Office: Pleas	e record the attached documents or the new address(es) below.	
1. Name of conveying party(ies) 1) Qunhui Guo 4) Peter L. Votruba-Drzal 2) Carol L. Knox 5) Charles F. Kahle 3) Truman Wilt 6) Gregory J. McCollum	2. Name and address of receiving party(ies) Name: PPG INDUSTRIES OHIO, INC. Internal Address:	
Additional name(s) of conveying party(ies) attached? Yes ✓ No 3. Nature of conveyance/Execution Date(s): 1, 3, & 6) 08/22/2014; 4) 08/19/2014; 5) 08/20/2014; Execution Date(s) and 2) 10/06/2004 ✓ Assignment		
Additional numbers att	ached? Yes / No	
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1 (one)	
Name: Lester N. Fortney	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 0.00	
Internal Address: The Webb Law Firm Street Address: One Gateway Center 420 Ft. Duquesne Blvd., Ste 1200	 Authorized to be charged by credit card Authorized to be charged to deposit account Enclosed ✓ None required (government interest not affecting title) 	
City: Pittsburgh	8. Payment Information	
State: PA Zip: 15222	a. Credit Card Last 4 Numbers 1916 Expiration Date 05/2015	
Phone Number: 412-471-8815	b. Deposit Account Number <u>23-0650</u>	
Fax Number: 412-945-5933 Email Address: assignments@webblaw.com	Authorized User Name	
9. Signature: June L. Fler	March 24, 2015	
Signature	Date	
James R. Franks, Reg. No. 42,552 Name of Person Signing	Total number of pages including cover sheet, attachments, and documents:	

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

	DOMESTIC
Application No	14/193,902
Attorney Docket No.	2576-143923

ASSIGNMENT
WHEREAS, as a below named inventor, I have invented certain new and useful
improvements in
FLUID EMULSION PURIFICATION PROCESSES USING MICROPOROUS MATERIALS HAVING FILTRATION AND ADSORPTION PROPERTIES
(Invention Title)
for which a United States Provisional Patent application was filed on(mm/dd/yyyy) and bears Application Number (hereinafter "said application"). AND/OR
for which I have this day executed an application for a United States Patent (hereinafter "said application"). AND/OR
X for which an application for a United States Patent was filed on 02/28/2014 (mm/dd/yyyy) and bears Application Number 14/193,902 (hereinafter "said application"). AND/OR
for which an international patent application was filed under the Patent Cooperation Treaty on(mm/dd/yyyy), bearing Application No (hereinafter "said application").
AND, WHEREAS, PPG INDUSTRIES OHIO, INC., a corporation of Delaware, having a place of business at 3800 West 143rd Street, Cleveland, Ohio 44111, hereinafter called the "assignee", is desirous of acquiring the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed.
NOW, THEREFORE, for good and valuable consideration paid to me by said assignee, the receipt of which is hereby acknowledged, I as the inventor or as one of the inventors, hereinafter the assignor(s), do hereby assign, sell and transfer unto said assignee the full and exclusive right, title and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, continuations-in-part, renewals and/or extensions thereof. Such assignment extends to the full ends of the terms of these applications and patents as fully and entirely as the same would have been held and enjoyed by me had this Assignment not been made.
I hereby authorize and request any attorney associated with The Webb Law Firm, Customer No. 28289, to insert here in parentheses (Application No, filed) the filing date and application number of said application when known.
I covenant that I am the lawful owner(s) of said application, inventions and improvements, that the same are unencumbered, that no license has been granted to make, use or vend the said inventions or improvements or any of them, and that I have the full right to make this Assignment.

Application No	DOMESTIC 14/193,902	
Attorney Docket No	2576-143923	

And for the consideration aforesaid, I agree individually and, if applicable, jointly that I will communicate to said assignee or the representatives thereof any facts known to me respecting said inventions and improvements, and will, upon request but without expense to me, testify in any legal proceedings, sign all lawful papers, execute all divisional, reissue, continuation, continuation-in-part, renewal and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts deemed necessary or expedient by said assignee or by counsel for said assignee to assist or enable said assignee to obtain and enforce full benefits from the rights and interests herein assigned. This Assignment shall be binding upon my heirs, executors, administrators and/or assigns, and shall inure to the benefit of the heirs, executors, administrators, successors and/or assigns, as the case may be, of said assignee.

1. FULL NAME OF ASSIGNOR: Qunhui Guo	RESIDENCE: Murrysville, PA
EXECUTED this 22nd day of August,	
STATE of Pennsylvania	SIGNATURE
COUNTY of Allegheny)	
DAY MONTH	ar 2014, before me Dinse Louise Glesmann NOTARY PUBLIC NAME
a notary public, personally appeared	Qunhui Guo NAME OF DOCUMENT SIGNER ,
proved on the basis of satisfactory evidence to be and acknowledged he/she executed the same.	the person whose name is subscribed to this instrument,
I certify under Penalty of Perjury under the laws that the foregoing paragraph is true and correct.	of the State of Fornsylvania
	Witness my hand and official seal.
COMMONWEALTH OF PENNSYLVAN Notarial Seal Denise Louise Giesmann, Notary Public Monroeville Boro, Allegheny County My Commission Expires April 15, 2017 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTAL	NOTARY PUBLIC
·	OJ. MNO.
	Onise

X Checked Box indicates 3 additional page(s) for inventor signatures.

DOMESTIC Application No. _____ 14/193,902 Attorney Docket No. ___2576-143923 2. FULL NAME OF ASSIGNOR: RESIDENCE: Carol L. Knox Apollo, PA EXECUTED this day of **SIGNATURE** STATE of COUNTY of , in the year On this day of NOTARY PUBLIC NAME a notary public, personally appeared NAME OF DOCUMENT SIGNER proved on the basis of satisfactory evidence to be the person whose name is subscribed to this instrument. and acknowledged he/she executed the same. I certify under Penalty of Perjury under the laws of the State of __ that the foregoing paragraph is true and correct. Witness my hand and official seal. NOTARY PUBLIC E 3. FULL NAME OF ASSIGNOR: RESIDENCE: Truman Wilt STATE of COUNTY of On this 22hd day of August _, in the year $\frac{2014}{\text{YEAR}}$, before me a notary public, personally appeared Truman Wilt NAME OF DOCUMENT SIGNER proved on the basis of satisfactory evidence to be the person whose name is subscribed to this instrument, and acknowledged he/she executed the same. I certify under Penalty of Perjury under the laws of the State of that the foregoing paragraph is true and correct. Witness my hand and official seal. COMMONWEALTH OF PENNSYLVANIA

Page 3 of 5

Denise Louise Giesmann, Notary Public Monroeville Boro, Allegheny County

My Commission Expires April 15, 2017
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

NOTARY PUBLIC

	Application No14/193,902
	Attorney Docket No. 2576-143923
4. FULL NAME OF ASSIGNOR: Peter Votruba-Drzal	RESIDENCE: Pittsburgh, PA
EXECUTED this 19 day of August, 20	14 Pet 1. Vot. Dyel
STATE of PENNSYLVANIA	SIGNATURE
COUNTY of ALLEGHENY	
On this 19 day of August, in the year a notary public, personally appeared	2014, before me MRY ANN WOODROW YEAR Peter Votruba-Drzal
proved on the basis of satisfactory evidence to instrument, and acknowledged he/she executed the s	NAME OF DOCUMENT SIGNER be the person whose name is subscribed to this
I certify under Penalty of Perjury under the laws of that the foregoing paragraph is true and correct.	the State of PENNSYLVANIA
	Witness my hand and official seal.
COMMONWEALTH OF PENNSYL Notarial Seal Mary Ann Woodrow, Notary Pul Hampton Twp., Allegheny Coun	blic NOTARY PUBLIC
My Commission Expires June 11, 2 MEMBER, PENNSYLVANIA ASSOCIATION OF N	2 017 E
5. FULL NAME OF ASSIGNOR:	DEGINENIOE.
Charles F. Kahle II	RESIDENCE: Pittsburgh, PA
EXECUTED this <u>20</u> day of <u>August</u> , 20	Caust Kinger
STATE of Production January	SIGNATURE
STATE of <u>fennsylvania</u>) COUNTY of <u>ALLEGHENY</u>)	
On this 20 day of August, in the year MONTH	John, before me MRY ANN WOODROW,
a notary public, personally appeared	Charles F. Kahle II ,
proved on the basis of satisfactory evidence to be instrument, and acknowledged he/she executed the s	
I certify under Penalty of Perjury under the laws of that the foregoing paragraph is true and correct.	the State of PENNSY LVANIA
that the fologoning paragraph is true and correct.	Witness my hand and official seal.
COMMONWEALTH OF PENNSYL Notarial Seal	
ivolation Scal	VANIA /VOLY KIM JY O-OUM
Mary Ann Woodrow, Notary Pu Hampton Twp., Allegheny Coun My Commission Expires June 11, MEMBER, PENNSYLVANIA ASSOCIATION OF N	blic S S E 2017

DOMESTIC

	Application No.	14/193,902
	Attorney Docket No.	2576-143923
6. FULL NAME OF ASSIGNOR: Gregory J. McCollum	RESIDENCE: Gibsonia, PA	
EXECUTED this 22 day of August,	2014 Geory J.	M. Collin
STATE OF PENNSYLVANIA	Sychatur	Е
COUNTY of ALLEGHENY)		
On this 22 day of August, in the year a notary public, personally appeared	YEAR Gregory J. McCollum	NOODROW,
proved on the basis of satisfactory evidence to be the and acknowledged he/she executed the same.	•	·
I certify under Penalty of Perjury under the laws o that the foregoing paragraph is true and correct.	f the State of PENN SYLVANIA	
	Witness my hand a	nd official seal.
COMMONWEALTH OF PE Notarial Seal Mary Ann Woodrow, No Hampton Twp., Allegher	tary Public Mary Ann H	oodrow
My Commission Expires Ju MEMBER, PENNSYLVANIA ASSOCIATI	ne 11, 2017	S E

Name	\mathcal{C}	groi K.	~	
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EMPLOYEE AGREEMENT

PPG Industries, Inc.

In consideration of my employment and/or continued employment by PPG INDUSTRIES, INC. including any Joint Ventures and existing or future subsidiaries owned or controlled directly or indirectly by PPG INDUSTRIES, INC. (hereinafter "PPG"), in a capacity in which I may receive and/or contribute information and develop customer goodwill pertaining to the interests of PPG and in which I may make inventions, discoveries, improvements or suggestions that are related to the present or anticipated business activities of PPG, and intending to be legally bound, I acknowledge and agree as follows.

- 1. Any inventions, discoveries, improvements, suggestions, trademarks, trade names, copyrightable works and mask works, (hereinafter referred to as "INTELLECTUAL PROPERTY") related to the present or anticipated technological and business activities of PPG that are made or conceived by me, either solely or jointly with others, while in the employ of PPG, whether during working hours or not, shall be the property of PPG, whether or not patentable or registrable, and I will communicate promptly and do hereby assign to PPG all rights to such INTELLECTUAL PROPERTY.
- 2. During and after the period of my employment by PPG, I will execute all documents and will assist PPG in every proper way, without compensation other than the base salary which I received while employed by PPG, but at PPG's expense, to obtain and enforce patents, trademark registrations and copyrights for such INTELLECTUAL PROPERTY in any and all countries.
- 3. Except as listed in the Exhibit attached to this Agreement, there is no INTELLECTUAL PROPERTY which I have made or conceived prior to my employment by PPG which is to be excluded from this Agreement.
- 4. No provision in this Agreement is intended to require assignment of any of my rights to INTELLECTUAL PROPERTY for which no equipment, supplies, facilities, or confidential or trade secret information of PPG was used, and which was developed entirely on my own time, and which neither (1) relates directly to the present or anticipated business activities of PPG or to the actual or demonstrably anticipated research or development activities of PPG nor (2) results from any work performed by me for PPG.
- 5. I will not use for my personal benefit or disclose to others, except in furtherance of my PPG employment duties or with PPG's written consent, either during or subsequent to my employment, any Confidential Information whether or not owned by PPG to which I gained access or developed during my employment by PPG. Confidential Information, as used in this Agreement, means trade secrets and other information not generally known in the relevant trade or industry, about products, equipment, processes and services, including information relating to research, development, manufacturing, purchasing, accounting, human resources, engineering, marketing, and selling.
- 6. I will not improperly use in performance of the duties of my employment or disclose to PPG, or induce PPG to use, Confidential Information belonging to others.
- 7. Upon cessation of my employment with PPG I will promptly deliver to PPG all records of any nature acquired as a result of my employment by PPG related to the present or anticipated business of PPG or the actual or anticipated technological and business activities of PPG, including any developed or made by me, and my own notes and diaries, and all copies of such records.
 - 8. During the period of my employment with PPG and for a period of two (2) years thereafter:
- (a) I shall provide a copy of this Agreement to any prospective new employer, prior to accepting employment.

- (b) I shall not solicit or hire, directly or indirectly, any person who is a PPG employee or who had been employed by PPG within the prior six (6) months for employment by, or any business relationship with, a Competitor.
- (c) If I have been given access to PPG's Confidential Information during my employment, I shall not accept employment with, or otherwise engage in activities or perform services for or on behalf of, a Competitor.
- (d) "Competitor" as used in Paragraphs 8 and 9 means any person or entity that is engaged in, or that has plans to become (within twelve (12) months after termination of my employment by PPG) engaged in, business activities that are the same as or similar to any of PPG businesses for which I worked at any time during the last twentyfour (24) months of my employment by PPG. Separate and distinct divisions of a diversified Competitor corporation may be considered independently of the corporation for the purposes of this definition.
- 9. (a) If I am unable to obtain employment due to the restrictions imposed on me by Paragraph 8(c), then PPG agrees to pay to me a monthly amount equal to my final average monthly base salary plus 1/12 of my final annual targeted bonus for a period of two (2) years or until a waiver is provided in accordance with Paragraph 9(b), whichever first occurs.
- (b) PPG may, at any time and in its sole discretion, give a written waiver permitting me to engage in activities or to perform services for a Competitor that would otherwise be prohibited by Paragraph 8(c).
- 10. This Agreement is ancillary to the other terms and conditions of my employment with PPG, such as position, responsibility, salary and benefits. Consideration for my entering into this Agreement shall be my employment and/or continued employment as described in the introductory paragraph to this Agreement. Additionally, if I have been asked by PPG to sign this Agreement while employed by PPG, additional consideration, such as a lump sum payment, a promotion, or inclusion in MAP or IC, shall be given to me.
- 11. I concur with PPG that the provisions of this Agreement are at the date of this Agreement, reasonable in duration, territory and scope of activity, and that my engaging in any service or activity proscribed under Section 8 would jeopardize PPG's Confidential Information and/or customer goodwill. If any one or more of the provisions contained in this Agreement shall for any reason be held to be excessively broad as to duration, territory, or scope of activity by a court of competent jurisdiction by which this Agreement may be construed, I along with PPG hereby request such court to limit and reduce any overly broad provision, so as to make it enforceable to the extent compatible with the applicable law as it shall then appear. A holding that any one or more of the provisions contained in this Agreement cannot be limited and reduced to be made valid and that such provision is invalid, illegal or unenforceable shall not affect any other provisions of this Agreement.
- 12. Nothing contained herein shall constitute an express or implied agreement of employment for a definite length of time, but rather is intended to protect PPG's INTELLECTUAL PROPERTY and Confidential Information and customer goodwill without unduly restricting my activity to obtain gainful employment.
- 13. My obligations set forth in Paragraphs 1, 2 and 7 shall be binding upon my heirs, legal representatives and assigns. PPG shall have the right to assign this Agreement without my consent.
- 14. This Agreement and all rights hereunder shall be governed and construed in accordance with the laws of the Commonwealth of Pennsylvania, except for its conflict of laws provisions.
- 15. Any breach or violation by me of the Agreement, including but not limited to Paragraphs 5 and 8, will result in immediate and irreparable injury to PPG in amounts difficult to ascertain. Therefore, should I breach any portion of this agreement, I agree that PPG shall be entitled to proceed directly to court to obtain the remedies of specific performance and injunctive relief (including but not limited to temporary restraining orders, preliminary injunctions, and permanent injunctions) without the necessity of posting a bond or other undertaking therewith.

The parties hereto set forth their signatures below, whereupon this Agreement shall enter into full force and effect as of the date the last party signs. This Agreement as of its effective date replaces any existing agreement written or otherwise entered into by me and PPG relating to the same general subject matter; but such replacement shall not affect rights and obligations of either party arising out of any such prior Agreement which shall then continue to be in effect for that purpose.

I, the undersigned, agree to and accept this Agreement this day of
Oct, and expressly state that by my signature I intend
to be legally bound to the terms and obligations of this Agreement.
By W
Signature Lacol Knox
Print or Type Name
11x Hidden Valley RL
Address
Monroeville PA 15146
City, State and Zip Code
Agreed to and accepted this day of GCL, 20_64 on
behalf of PPG INDUSTRIES, INC.
By June Brokh
Signature
DIANA GROWHOLD
Print or Type Name Coordinato
Title

EXHIBIT EXCLUDED INTELLECTUAL PROPERTY

Do not disclose or describe anything you regard as confidential. What should be written in this space is a brief description of the product, process, etc. that constitutes the INTELLECTUAL PROPERTY plus any relevant patent and patent application numbers. Documents such as dated drawings and a written description may be attached.

(rev. 3/22/00)

PATENT REEL: 035240 FRAME: 0326

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