504746116 01/25/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4792844

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
PEER KIRSCH	10/13/2017
SUSANN GUNST	01/13/2018
MICHAEL JUNGE	10/19/2017
URSULA PATWAL	10/19/2017
MILA FISCHER	10/19/2017

RECEIVING PARTY DATA

Name:	MERCK PATENT GMBH
Street Address:	FRANKFURTER STRASSE 250
City:	DARMSTADT
State/Country:	GERMANY
Postal Code:	64293

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	15742918	

CORRESPONDENCE DATA

Fax Number: (703)243-6410

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.

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Email: mail@mwzb.com

Correspondent Name: MILLEN, WHITE, ZELANO & BRANIGAN - AMB

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Address Line 2: SUITE 1400

Address Line 4: ARLINGTON, VIRGINIA 22201

ATTORNEY DOCKET NUMBER:	MERCK-4677
NAME OF SUBMITTER:	AUBREY M. BROOKS
SIGNATURE:	/Aubrey M. Brooks/
DATE SIGNED:	01/25/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

PATENT REEL: 044725 FRAME: 0652

504746116

Total Attachments: 6 source=MERCK-4677_DualDecAssignment#page1.tif source=MERCK-4677_DualDecAssignment#page2.tif source=MERCK-4677_DualDecAssignment#page3.tif source=MERCK-4677_DualDecAssignment#page4.tif source=MERCK-4677_DualDecAssignment#page5.tif source=MERCK-4677_DualDecAssignment#page6.tif

PATENT REEL: 044725 FRAME: 0653

Title of Invention	DITHIO	-ALKYL-PYRROLO-PYRROLES AND USE THEREOF AS DYES			
As the below named inventor, I hereby declare that:					
This declaration		The attached application, or			
is directed to:	図	United States Application or PCT International Application number <u>PCT/EP2016/001048</u> filed on 20.06.2016			
The above-identif	ied applica	ation was made or authorized to be made by me.			
I believe that I am	the origin	al inventor or an original joint inventor of a claimed invention in the application.			
all patent(s) listed	Find to as the labove, income	lerck Patent GmbH rankfurter Strasse 250 4293 Darmstadt / DE ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and eluding any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, alls, reissues, reexaminations and extensions thereof.			
ASSIGNOR hereight, title and integral and all Letters Parthereof, and in anto accrue with resinvention, SAID including any and which may be graright to sue for datarising from or apprenewals, reissues representatives, in	by assigns, erest in and tent which d to any an pect to the ASSIGNE! I all earlier unted there! unages occupertaining, reexamir as ample	ETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive I to said invention and patent(s), including any and all divisions and continuations thereof, and any may be granted therefor, including any and all renewals, reissues, reexaminations and extensions dall U.S. (including provisional) or foreign priority and/or convention rights or benefits accruing or filing or securing of patents in the United States and/or any countries foreign thereto concerning said its assigns and legal representatives to have, hold, exercise, and enjoy said invention and patent, priority rights (U.S. and foreign), divisions and continuations thereof, any and all Letters Patent For, including any and all renewals, reissues, reexaminations and extensions thereof, including the urring before the assignment, with all the rights, powers, privileges and advantages in anywise thereto, for and during the term or terms of any and all such Letters Patent, including any and all lations and extensions thereof, for the use and benefit of ASSIGNEE and its assigns and legal and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and grament had not been made.			
and foreign count	ries for sai	hereby agrees to execute all papers that may be necessary to file applications in the United States d invention and to assign the same to said ASSIGNEE, its assigns and legal representatives and to it may be needed in connection with securing Letters Patents thereon.			
AND A any and all division	SSIGNOR	authorizes and requests the Commissioner of Patents and Trademarks to issue a Letters Patent on intinuations thereof, to ASSIGNEE, its assigns and legal representatives, in accordance herewith.			
The uncassignment information properly record the	nation whi	nereby grant(s) the law firm of Millen, White, Zelano & Branigan, P.C. the power to insert on this ch may be necessary or desirable in order for the United States Patent and Trademark Office to nt.			
	1	N TESTIMONY WHEREOF this assignment is executed by ASSIGNOR			
I hereby	y acknowle nent of not	edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by more than five (5) years, or both.			
LEGAL NAME (
Inventor: I	Peer KIRSO				
Signature:					

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.
ATTORNEYS AT LAW
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TELEPHONE: 703.243.6333 | FAX: 703.243.6410
EMAIL: MAIL@MWZB.COM

Effective, September 16, 2012

PATENT REEL: 044725 FRAME: 0654

Title of	DITHIO-ALKYL-PYRROLO-PYRROLES AND USE THEREOF AS DYES				
Invention					
As the below nan	ned invento	or, I hereby declare that;			
This declaration		The attached application, or			
is directed to:	Ø	United States Application or PCT International Application number <u>PCT/EP2016/001048</u> filed on <u>20.06.2016</u>			
The above-identif	fied applica	ation was made or authorized to be made by me.			
I believe that I an	the origin	al inventor or an original joint inventor of a claimed invention in the application.			
AND WHEREAS					
	F	Ierck Patent GmbH rankfurter Strasse 250 4293 Darmstadt / DE			
all patent(s) listed	l above, inc	ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and cluding any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, als, reissues, reexaminations and extensions thereof.			
ASSIGNOR here right, title and into and all Letters Parthereof, and in an to accrue with resinvention, SAID a including any and which may be graright to sue for da arising from or aprenewals, reissues representatives, in	by assigns, erest in and tent which do any an appect to the ASSIGNEI all earlier anted therein ages occupertainings, reexamin as ample	ETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive it to said invention and patent(s), including any and all divisions and continuations thereof, and any may be granted therefor, including any and all renewals, reissues, reexaminations and extensions id all U.S. (including provisional) or foreign priority and/or convention rights or benefits accruing or filing or securing of patents in the United States and/or any countries foreign thereto concerning said its assigns and legal representatives to have, hold, exercise, and enjoy said invention and patent, priority rights (U.S. and foreign), divisions and continuations thereof, any and all Letters Patent for, including any and all renewals, reissues, reexaminations and extensions thereof, including the urring before the assignment, with all the rights, powers, privileges and advantages in anywise thereto, for and during the term or terms of any and all such Letters Patent, including any and all lations and extensions thereof, for the use and benefit of ASSIGNEE and its assigns and legal and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and grament had not been made.			
and foreign count	ries for sai	hereby agrees to execute all papers that may be necessary to file applications in the United States d invention and to assign the same to said ASSIGNEE, its assigns and legal representatives and to t may be needed in connection with securing Letters Patents thereon.			
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The uncassignment inform properly record the	nation whi	nereby grant(s) the law firm of Millen, White, Zelano & Branigan, P.C. the power to insert on this ch may be necessary or desirable in order for the United States Patent and Trademark Office to nt.			
	1	N TESTIMONY WHEREOF this assignment is executed by ASSIGNOR			
		dge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by more than five (5) years, or both.			
LEGAL NAME (A 7 200 K X			
Inventor: S	Susann GU				
Signature:	(Zu St			

Millen, White, Zelano & Branigan, P.C.
Attorneys at Law
Arlington Courthouse Plaza
2200 Clarendon Boulevard | Suite 1400 | Arlington VA 22201
Telephone: 703.243.6333 | Fax: 703.243.6410
Email: mail@mwzb.com

Effective, September 16, 2012

PATENT REEL: 044725 FRAME: 0655

Title of Invention	DITHIC	-ALKYL-PYRROLO-PYRROLES AND USE THEREOF AS DYES			
As the below named inventor, I hereby declare that:					
This declaration		The attached application, or			
is directed to:	8	United States Application or PCT International Application number PCT/EP2016/001048 filed on 20.06.2016			
The above-identif	fied applica	ation was made or authorized to be made by me.			
I believe that I am	n the origin	al inventor or an original joint inventor of a claimed invention in the application.			
all patent(s) listed including any and	M F 6 ed to as the I above, including the second I all renews	lerck Patent GmbH rankfurter Strasse 250 4293 Darmstadt / DE ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and cluding any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, als, reissues, reexaminations and extensions thereof.			
ASSIGNOR here right, title and int and all Letters Pa thereof, and in an to accrue with res invention, SAID including any and which may be graright to sue for dearising from or agrenewals, reissue.	by assigns erest in and tent which do any ar spect to the ASSIGNE dealler earlier anted there amages occupertainings, reexaming as ample	ETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive does aid invention and patent(s), including any and all divisions and continuations thereof, and any may be granted therefor, including any and all renewals, reissues, reexaminations and extensions and all U.S. (including provisional) or foreign priority and/or convention rights or benefits accruing or filing or securing of patents in the United States and/or any countries foreign thereto concerning said E, its assigns and legal representatives to have, hold, exercise, and enjoy said invention and patent, priority rights (U.S. and foreign), divisions and continuations thereof, any and all Letters Patent for, including any and all renewals, reissues, reexaminations and extensions thereof, including the patent of the assignment, with all the rights, powers, privileges and advantages in anywise, thereto, for and during the term or terms of any and all such Letters Patent, including any and all nations and extensions thereof, for the use and benefit of ASSIGNEE and its assigns and legal and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and ignment had not been made.			
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The un assignment inform properly record the	mation wh	hereby grant(s) the law firm of Millen, White, Zelano & Branigan, P.C. the power to insert on this ich may be necessary or desirable in order for the United States Patent and Trademark Office to ent.			
		IN TESTIMONY WHEREOF this assignment is executed by ASSIGNOR			
I hereb fine or imprisonn	y acknowle ment of not	edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by more than five (5) years, or both.			
LEGAL NAME	OF INVEN	TOR NOTE: A Date: A DATE:			
Inventor:	Michael N	incey Bate, 2			
Signature:		Control of the State of the Sta			

Millen, White, Zelano & Branigan, P.C. Attorneys at Law Arlington Courthouse Plaza 2200 Clarendon Boulevard | Suite 1400 | Arlington VA 22201 Telephone: 703.243.6333 | Fax: 703.243.6410

EMAIL: MAIL@MWZB.COM

Effective, September 16, 2012

Title of Invention	DITHIC	O-ALKYL-PYRROLO-PYRROLES AND USE THEREOF AS DYES
As the below nam	red invento	or, I hereby declare that:
This declaration	. 🗆	The attached application, or
is directed to:	X	United States Application or PCT International Application number PCT/EP2016/001048 filed on 20.06.2016
The above-identif	ied applic	ation was made or authorized to be made by me.
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all patent(s) listed including any and	F 6 6 6 1 above, in I all renew	Merck Patent GmbH Frankfurter Strasse 250 4293 Darmstadt / DE ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and cluding any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, als, reissues, reexaminations and extensions thereof.
ASSIGNOR here right, title and int and all Letters Pa thereof, and in an to accrue with res invention, SAID including any and which may be graright to sue for darising from or agreenewals, reissues representatives, in	by assigns erest in an tent which do any as spect to the ASSIGNE all earlier anted there amages occupertainings, reexaminas ample	ETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive does aid invention and patent(s), including any and all divisions and continuations thereof, and any may be granted therefor, including any and all renewals, reissues, reexaminations and extensions and all U.S. (including provisional) or foreign priority and/or convention rights or benefits accruing or effling or securing of patents in the United States and/or any countries foreign thereto concerning said E, its assigns and legal representatives to have, hold, exercise, and enjoy said invention and patent, priority rights (U.S. and foreign), divisions and continuations thereof, any and all Letters Patent for, including any and all renewals, reissues, reexaminations and extensions thereof, including the curring before the assignment, with all the rights, powers, privileges and advantages in anywise thereto, for and during the term or terms of any and all such Letters Patent, including any and all nations and extensions thereof, for the use and benefit of ASSIGNEE and its assigns and legal and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and ignment had not been made.
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I hereb	y acknowl nent of no	edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by more than five (5) years, or both.
LEGAL NAME		
Inventor:	Ursula PA	1 WAL
Signature:		Isula 4004/al

Millen, White, Zelano & Branigan, P.C.
Attorneys at Law
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Effective, September 16, 2012

Title of Invention	DITHIO	-ALKYL-PYRROLO-PYRROLES	S AND USE THER	EOF AS DYES
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is directed to:	Ø	United States Application or PCT Inte 20.06.2016	rnational Application	number PCT/EP2016/001048 filed on
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I believe that I an	n the origin	al inventor or an original joint inventor	of a claimed invention	on in the application.
all patent(s) listed including any and	M F 6 ed to as the l above, inc i all renewa	ferck Patent GmbH rankfurter Strasse 250 4293 Darmstadt / DE ASSIGNEE, is desirous of acquiring teluding any and all earlier priority right als, reissues, reexaminations and extense ETH that for good and valuable consid	s (U.S. and foreign), sions thereof.	
ASSIGNOR here right, title and int and all Letters Pathereof, and in an to accrue with resinvention, SAID including any and which may be graight to sue for darising from or a grenewals, reissue representatives, i	by assigns, erest in anotent which do any ar spect to the ASSIGNE dall earlier annages occuppertaining s, reexamin as ample	s, solls, and transfers to ASSIGNEE, its d to said invention and patent(s), including be granted therefor, including any and all U.S. (including provisional) or for filing or securing of patents in the Unite, its assigns and legal representatives priority rights (U.S. and foreign), division, including any and all renewals, reingular to the term of the apations and extensions thereof, for the instantians and extensions thereof. for the instantians and extensions thereof.	assigns and legal repring any and all division and all renewals, religing priority and/or of the States and/or any to have, hold, exercise ions and continuation seues, reexaminations, he rights, powers, prins of any and all such use and benefit of ASS	resentatives, the entire and exclusive ons and continuations thereof, and any ssues, reexaminations and extensions convention rights or benefits accruing or countries foreign thereto concerning said e, and enjoy said invention and patent, s thereof, any and all Letters Patent and extensions thereof, including the vileges and advantages in anywise a Letters Patent, including any and all
and foreign coun execute any other	tries for sa r papers the	R hereby agrees to execute all papers the id invention and to assign the same to sat may be needed in connection with se	aid ASSIGNEE, its at curing Letters Patents	ssigns and legal representatives and to thereon.
AND / any and all divisi	ASSIGNOI ons and co	R authorizes and requests the Commiss intinuations thereof, to ASSIGNEE, its	oner of Patents and T assigns and legal repr	rademarks to issue a Letters Patent on resentatives, in accordance herewith.
The un assignment infor properly record t	mation wh	hereby grant(s) the law firm of Millen, ich may be necessary or desirable in or ent.	White, Zelano & Bradder for the United Sta	nigan, P.C. the power to insert on this tes Patent and Trademark Office to
		IN TESTIMONY WHEREOF this ass	gnment is executed b	y ASSIGNOR
I hereb	y acknowl ment of not	edge that any willful false statement m more than five (5) years, or both.	ade in this declaration	is punishable under 18 U.S.C. 1001 by
LEGAL NAME Inventor:	OF INVEN Mila FISC	HER	Date:	19.10.2017
Signature:	/	il Asolis		

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.
ATTORNEYS AT LAW
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TELEPHONE: 703.243.6333 | FAX: 703.243.6410

EMAIL: MAIL@MWZB.COM

Effective, September 16, 2012

Declaration

I, Susann Gunst, here my former name is Su	with declare that I married on sann Beck.	 and
Date: Ob. 12. 16		
Susann Gunst (forme	r Beck)	

PATENT REEL: 044725 FRAME: 0659

RECORDED: 01/25/2018