505549155 06/28/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5595952

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KRIS MATSON	04/06/2018
PASCAL DAY	04/12/2018
LLOYD HINNANT	04/09/2018
ALVARO ORTIZ FERNANDEZ	04/10/2018
EDUARDO BACK	04/09/2018
JONATHON BRENT SLONE	06/07/2019

RECEIVING PARTY DATA

Name:	BAYER CROPSCIENCE LP
Street Address:	2 T.W. ALEXANDER DRIVE
City:	RESEARCH TRIANGLE PARK
State/Country:	NORTH CAROLINA
Postal Code:	27709

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16454840

CORRESPONDENCE DATA

Fax Number: (301)476-4851

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: lpogue@mmwvlaw.com, cthomas@mmwvlaw.com,

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Correspondent Name: MCBEE MOORE WOODWARD & VANIK IP LLC

Address Line 1:510 SOUTH MARKET STREETAddress Line 4:FREDERICK, MARYLAND 21701

ATTORNEY DOCKET NUMBER:	2912939-264003
NAME OF SUBMITTER:	LAUREN A. POGUE
SIGNATURE:	/Lauren A. Pogue/
DATE SIGNED:	06/27/2019
	This document serves as an Oath/Declaration (37 CFR 1.63).

PATENT 505549155 REEL: 049618 FRAME: 0589

Total Attachments: 17 source=2912939-264003_assign-w-dec-executed#page1.tif source=2912939-264003 assign-w-dec-executed#page2.tif source=2912939-264003 assign-w-dec-executed#page3.tif source=2912939-264003_assign-w-dec-executed#page4.tif source=2912939-264003_assign-w-dec-executed#page5.tif source=2912939-264003_assign-w-dec-executed#page6.tif source=2912939-264003_assign-w-dec-executed#page7.tif source=2912939-264003_assign-w-dec-executed#page8.tif source=2912939-264003 assign-w-dec-executed#page9.tif source=2912939-264003_assign-w-dec-executed#page10.tif source=2912939-264003_assign-w-dec-executed#page11.tif source=2912939-264003_assign-w-dec-executed#page12.tif source=2912939-264003 assign-w-dec-executed#page13.tif source=2912939-264003_assign-w-dec-executed#page14.tif source=2912939-264003_assign-w-dec-executed#page15.tif source=2912939-264003_assign-w-dec-executed#page16.tif source=2912939-264003 assign-w-dec-executed#page17.tif

PATENT REEL: 049618 FRAME: 0590

ASSIGNMENT

Whereas, I/we, the undersigned inventor(s) hereinafter called assignor(s), have invented certain improvements described in the application identified below; and

Whereas, **Bayer CropScience LP** (assignee), whose business address is 2 T.W. Alexander Drive
Research Triangle Park, NC 27709

desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above name assignor(s), hereby sell, assign and transfer to the above named assignee, its successors, legal representatives, and assigns, my/our entire right, title and interest, if any, in the invention and the application for the United States of America, including all direct and indirect divisions, continuations, and continuations-in-part thereof, and all original, extended, reissued, reviewed, and reexamined Letters Patent of the United States, and all countries foreign thereto, that may be granted thereon, including rights of priority under the International Convention of Paris (1883) as amended, including the right to claim priority under 35 U.S.C. §119, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we hereby agree that the assignee may apply for foreign Letters Patent on the invention and I/we will without further consideration, communicate all facts known to me/us and execute without further consideration all papers deemed necessary by the assignee in connection with the United States and foreign applications when called upon to do so by the assignee, its successors, legal representatives, or assigns. I/We further represent and warrant that I/we have the full right to convey the interest assigned by this assignment, and that I/we have not granted any rights inconsistent with the rights granted herein. I/we further acknowledge an obligation of assignment of this invention to assignee at the time the invention was made.

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261.)

DECLARATION

	As a below named inventor, I hereby declare that this assignment with declaration is directed to:
\boxtimes	The attached application, OR U.S. Application Number filed on
	Title: VEGETATION DETECTION AND ALERT SYSTEM FOR A RAILWAY VEHICLE
	The above identified application was made or was authorized to be made by me.
	I believe I am the original inventor or an original joint inventor of a claimed invention in the application.
	I hereby acknowledge that any willful false statement made in this assignment with declaration is
ounist	nable under 18 U.S.C. \$1001 by fine or imprisonment of not more than five (5) years, or both.

SOLE OR FIRST INVENTOR	
Name: Kris C. MATSON	
Mailing Address:	
107 Woodfrail Lane	
Cary, NC 27/618	/ .
Signature: SECOND INVENTOR	Date: 4/4/18
Name: Pascal Day	
Mailing Address:	
c/o Bayer CropScience LP	
2 TW Alexander Drive	*
Research Triangle Park, NC 27709	•
Signature:	Date:
THIRD INVENTOR	
Name: Lloyd HINNANT	
Mailing Address:	
123 Council Gap Ct.	
Cary, NC 27513	
Signature:	Date:
FOURTH INVENTOR Name: Alvaro Ortiz FERNANDEZ	
Mailing Address:	
C/Sierra Alhamilla 160	
04007 Almeria	
Spain	
	•
Signature:	Date:
FIFTH INVENTOR	
Name: Eduardo Back	•
TOTAL LOUGING DRON	

Mailing Address:	
c/o Bayer CropScience LP	
2 TW Alexander Drive	
Research Triangle Park, NC 27709	
Signatura:	Data:

ASSIGNMENT

Whereas, I/we, the undersigned inventor(s) hereinafter called assignor(s), have invented certain improvements described in the application identified below; and

Whereas, **Bayer CropScience LP** (assignee), whose business address is 2 T.W. Alexander Drive
Research Triangle Park, NC 27709

desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor:

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above name assignor(s), hereby sell, assign and transfer to the above named assignee, its successors, legal representatives, and assigns, my/our entire right, title and interest, if any, in the invention and the application for the United States of America, including all direct and indirect divisions, continuations, and continuations-in-part thereof, and all original, extended, reissued, reviewed, and reexamined Letters Patent of the United States, and all countries foreign thereto, that may be granted thereon, including rights of priority under the International Convention of Paris (1883) as amended, including the right to claim priority under 35 U.S.C. §119, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we hereby agree that the assignee may apply for foreign Letters Patent on the invention and I/we will without further consideration, communicate all facts known to me/us and execute without further consideration all papers deemed necessary by the assignee in connection with the United States and foreign applications when called upon to do so by the assignee, its successors, legal representatives, or assigns. I/We further represent and warrant that I/we have the full right to convey the interest assigned by this assignment, and that I/we have not granted any rights inconsistent with the rights granted herein. I/we further acknowledge an obligation of assignment of this invention to assignee at the time the invention was made.

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DECLARATION

	As a below named inventor, I hereby declar	re that this assigr	nment with declaration is directed to:
	The attached application, OR		U.S. Application Number filed on
	Title: VEGETATION DETECTION A	ND ALERT SYST	EM FOR A RAILWAY VEHICLE
	The above identified application was made	or was authorize	d to be made by me.
	I believe I am the original inventor or an ori	iginal joint invento	r of a claimed invention in the application.
	I hereby acknowledge that any willful false	statement made l	n this assignment with declaration is
punish	hable under 18 U.S.C. §1001 by fine or impris	sonment of not mo	ore than five (5) years, or both.

107 Woodfrail Lane	
Cary, NC 27518	
Signature:	Date:
PERCAND INVENTAGE	
SECOND INVENTOR	
Name: Pascal Day	
Mailing Address:	
c/o Bayer CropScience LP	
2 TW Alexander Drive	
Research Triangle Park, NC 27709	
Signature:	Date: 12/04/2018
THIRD INVENTOR	
Name: Lloyd HINNANT	
Mailing Address:	
123 Council Gap Ct.	
Cary, NC 27513	
Signature:	Date:
FOURTH INVENTOR	
Name: Alvaro Ortiz FERNANDEZ	
Mailing Address:	
C/Sierra Alhamilla 160	
04007 Almeria	
Spain	
Signature:	Date:
FIFTH INVENTOR	
Name: Eduardo Back	
וימוווס. בשממוסט ממטא	

SOLE OR FIRST INVENTOR Name: Kris C. MATSON

Mailing Address:

Mailing Address:	
c/o Bayer CropScience LP	
2 TW Alexander Drive	
Research Triangle Park, NC 27709	
Signature:	Date:

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	I believe I am the original inventor or an original joint inventor of a claimed Invention In the application.
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punish	hable under 18 U.S.C. §1001 by fine or imprisonment of not more than five (5) years, or both.

Signature:	Date:
SECOND INVENTOR	
Name: Pascal Day	
Mailing Address:	
c/o Bayer CropScience LP	
2 TW Alexander Drive	
Research Triangle Park, NC 27709	
Signature:	Date:
THIRD INVENTOR	
Name: Lloyd HINNANT	
Mailing Address:	
123 Council Gap Ct.	
Cary, NC 27513	, , , , , , , , , , , , , , , , , , ,
Signature:	Date: 4/9/18
FOURTH INVENTOR	
Name: Alvaro Ortiz FERNANDEZ	
Mailing Address:	
C/Sierra Alhamilla 160	
04007 Almeria	
Spain	
Signature:	Date:
FIFTH INVENTOR	
Name: Eduardo Back	
	D 0

SOLE OR FIRST INVENTOR Name: Kris C. MATSON

> 107 Woodtrail Lane Cary, NC 27518

Mailing Address:

Mailing Address:	
c/o Bayer CropScience LP	
2 TW Alexander Drive	
Research Triangle Park, NC 27709	
Signature:	Date:

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107 Woodtrail Lane	
Cary, NC 27518	
Signature:	Date:
SECOND INVENTOR	
Name: Pascal Day	
Malling Address:	
do Bayer CropScience LP	
2 TW Alexander Drive	
Research Triangle Park, NC 27709	
•	
Signature:	Date:
	00.07
THIRD INVENTOR	
Name: Lloyd HINNANT	
Mailing Address:	
123 Council Gap Ct.	
Cary, NC 27513	
Signature:	Date:
FOURTH INVENTOR	
Name: Alvaro Ortiz FERNANDEZ	
Malling Address:	
C/Sierra Alhamilla 160	
04007 Almeria	
Spain	
Al X	2 . th
Signature:	Date: APRIL 10th, 2018
P	•

SOLE OR FIRST INVENTOR Name: Kris C. MATSON

Mailing Address:

FIFTH INVENTOR

Name: Eduardo Back

Mailing Address:	
c/o Bayer CropScience LP	
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Research Triangle Park, NC 27709	
Signature:	Date:

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Cary, NC 27518	
Signature:	Date:
SECOND INVENTOR	
Name: Pascal Day	
Mailing Address:	
c/o Bayer CropScience LP	
2 TW Alexander Drive	
Research Triangle Park, NC 27709	
Signature:	Date:
THIRD INVENTOR	
Name: Lloyd HINNANT	
Malling Address:	
123 Council Gap Ct.	
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Signature:	Date:
FOURTH INVENTOR	
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Malling Address:	
C/Sierra Alhamilla 160	
04007 Almeria	
Spain	
Signature:	Date:
FIFTH INVENTOR	
Name: Eduardo Back	

SOLE OR FIRST INVENTOR Name: Kris C. MATSON

107 Woodtrail Lane

Mailing Address:

Mailing Address:

c/o Bayer CropScience LP

2 TW Alexander Drive

Research Triangle Park, NC 27709

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DECLARATION

,	 ,
The attached application, OR	U.S. Application Number 16/166,945 filed on 22 October 2018

As a below named inventor. I hereby declare that this assignment with declaration is directed to:

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SIXTH INVENTOR

Name: Jonathon Brent SLONE

Mailing Address:

104 Parkmeadow Drive Cask NC 27519

Signature:

e Date: 47/19