504387029 05/26/2017

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
NASSIM KHALED	01/06/2017
MICHAEL HAAS	01/06/2017
YINGHUAN LEI	01/06/2017
RICHARD J. ANCIMER	02/09/2017

RECEIVING PARTY DATA

Name:	CUMMINS EMISSION SOLUTIONS INC.		
Street Address:	500 JACKSON STREET		
City:	COLUMBUS		
State/Country:	INDIANA		
Postal Code:	47201		

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	15433339	

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	106389-4401
NAME OF SUBMITTER:	JEFFREY J. MIKRUT
SIGNATURE:	/Jeffrey J. Mikrut/
DATE SIGNED:	05/26/2017

Total Attachments: 6

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PATENT REEL: 042519 FRAME: 0054

ASSIGNMENT - WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor (hereinafter referred to singly and collectively as "ASSIGNOR") has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto

Cummins Emission Solutions Inc. 500 Jackson Street Columbus, IN 47201 U.S.A.

(hereinafter referred to as "ASSIGNEE") its successors and assigns, the full and exclusive right, title and interest for the United States, its territories and possessions, and all foreign countries in and to this invention relating to

Systems and Methods for SCR Feedgas Diagnostics

check one	[] executed concurrently herewith,
	[] executed on,
	[X] Serial No. 15/433,339 Filed on February 15, 2017

as set forth in this United States Patent Application

as well as in and to (a) all improvements and modifications of the above-identified invention or inventions, (b) the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto for above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States and countries foreign thereto, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the Patent Cooperation Treaty, the Paris Convention and any other international agreement; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES ASSIGNEE to file patent applications in any or all countries on the above-identified invention or inventions in the name of the undersigned or in the name of ASSIGNEE or otherwise as ASSIGNEE may deem advisable under the International Convention or otherwise.

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ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representative or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, and declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of **Foley & Lardner LLP** the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of Foley & Lardner LLP do not personally represent ASSIGNOR OR ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

Executed this 6 day of January, 2017.

Nassim Khaled

State of <u>Indiana</u>)

County of Bartholomew)

On Jon 6, 2017, before me, <u>Carmelita Kay Kohl-Smith /Notary Public</u>

Here insert Name and Title of the Officer (Notary Public)

personally appeared NASSIM KHALED Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/their executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

CARMELITA KAY KOHL-BMITH

Bartholomew County My Commission Expires June 17, 2023

Place Notary Seal Above

Executed this 6th day of January, 2017.

MICHAEL HAAS

Muhael &

State of <u>Indiana</u>)

County of Bartholomew)

On Jane before me, Carmelita Kay Kohl-Smith /Notary Public

Here insert Name and Title of the Officer (Notary Public)

personally appeared MICHAEL HAAS

Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/their executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Carmelle Kay Koll Smill

Signature of Notary Public



Place Notary Seal Above

Executed this	6 day of January	, 2017.			
	J		1		
					ı
			YING	GHUAN LEL	

State of <u>Indiana</u>)

County of <u>Bartholomew</u>)

On <u>Jan. 6</u>, <u>2017</u>, before me, <u>Carmelita Kay Kohl-Smith /Notary Public</u>

Here insert Name and Title of the Officer (Notary Public)

personally appeared <u>YINGHUAN LEI</u>
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/their executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY that the foregoing paragraph is true and correct.

WITNESS my, hand and official seal.

Signature Wimelile

Signature of Notary Public



Place Notary Seal Above

Atty. Dkt. No. 106389-4401

Executed this Ph day of February, 2017.

RICHARD J. ANCIMER

NAME AND SIGNATURE OF WITNESSES

NAME: LISA JACOBS SIGNATURE:

DATE: Reb 9 2017

NAME: Jan JACOBS

SIGNATURE:

bonet infacoliDATE: Feb 9 2017

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