PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WEI ZENG	07/24/2019
SHARON XIAOBIN LI	07/23/2019
LEI HAO	07/08/2019
CHANDRA NAMUDURI	07/08/2019
MICHAEL C. ZUMBAUGH	07/16/2019

RECEIVING PARTY DATA

Name:	GM GLOBAL TECHNOLOGY OPERATIONS LLC
Street Address:	P.O. BOX 300
City:	DETROIT
State/Country:	MICHIGAN
Postal Code:	48265-3000

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16520905

CORRESPONDENCE DATA

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Total Attackments O	
DATE SIGNED:	02/13/2020
SIGNATURE:	/STEVENLCRANE/
NAME OF SUBMITTER:	STEVEN L. CRANE
ATTORNEY DOCKET NUMBER:	P048640-US-NP

Total Attachments: 3

source=2019-07-24 Assignment P048640-US-NP#page1.tif source=2019-07-24 Assignment P048640-US-NP#page2.tif source=2019-07-24 Assignment P048640-US-NP#page3.tif

ASSIGNMENT

Pursuant to an agreement with my employer, I formally assign to GM GLOBAL TECHNOLOGY OPERATIONS LLC, the entire right, title and interest, in all countries and application types, in the improvements set forth in the United States patent application P048640-US-NP entitled

SYSTEM AND METHOD FOR REDUCING COLD START EMISSIONS OF A MOTOR VEHICLE

for which I executed a declaration. If the patent application has been filed, I authorize any practitioner associated with Customer No. 76438 to insert the application number and filing date

of said application h	ere in parentheses (16/520,905) fi	led (07/24/2019) when known.
	tion has been filed provisionally, the applic lication(s) assigned herein are as follows:	ation number and filing date of
Inventor's signature	·	Date
Full name : Residence :	Leî Hao Troy, MI	
Inventor's signature	<u> </u>	Date 7/24/2019
Full name : Residence :	Wei Zeng Oakland Township, MI	
Inventor's signature		Date
Full name : Residence :	Chandra Namuduri Troy, MI	
Inventor's signature		Date 7/23/2019
Full name : Residence :	Sharon Xiaobin Li Bloomfield Hills, MI	

Inventor's signature

Michael C. Zumbaugh

Troy, MI

Full name:

Residence:

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If the patent application has been filed provisionally, the application number and filing date of

said provisional application(s) assigned herein are as follows:

Inventor's signature		Date 07/08/19
Full name : Residence :	Lei Hao Troy, MI	
Inventor's signature		Date
Full name : Residence :	Wei Zeng Oakland Township, MI	
Inventor's signature	Cas Maria	Date <u>(%)</u> 017 2019
Full name : Residence ;	Chandra Namuduri Troy, MI	
Inventor's signature		Date
Full name : Residence :	Sharon Xiaobin Li Bloomfield Hills, MI	
Inventor's signature		Date
Full name : Residence :	Michael C. Zumbaugh Troy, MI	

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Full name: Residence:	Wei Zeng Oakland Township, MI	
Inventor's signature		Date
Full name : Residence :	Chandra Namuduri Troy, MI	
Inventor's signature		Date
Full name : Residence :	Sharon Xiaobin Li Bloomfield Hills, MI	
Inventor's signature	michael C. Bumbangh	Date_ <u>July 16, 2019</u>
Full name : Residence :	Michael C. Zumbaugh Troy, MI	

RECORDED: 02/13/2020