

# **Emissions 2018**

Presentations

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**Emissions 2018 Conference**

May 23-24, 2018

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VisTaTech Center at Schoolcraft College

18600 Haggerty Road

Livonia, Michigan 48152-2696

Registration: 8:30am-9:00am, Main Street

**Wednesday, May 23, 2018**

AM Session	Plenary & Keynote: Clean Air & Emission Solution Pathways Session Co- Chairs: Hank Sullivan Director <i>Tenneco</i> Ted Asako Product Development Manager <i>NGK - Detroit</i>	PM Session	Emissions Product Design & Testing Session Chair: Gordon Bartley, PhD Aftertreatment Catalyst Specialist <i>Bartley Consulting</i> Ashok Kumar, PhD Technical Advisor <i>Cummins</i>
Time	Room VT 425	Time	Room VT 425
9:00 am	<b>Introduction &amp; Welcome</b> Hank Sullivan Director <i>Tenneco</i>	1:30 pm	<b>SCR Outlet NH3/NOx Sensor Measurement Performance Using CFD .....1</b> Manoj Sampath, PhD, Figen Lacin, PhD <i>Tenneco</i>
9:15 am	<b>Powertrain Evolution: The Changing Face of Transport .....N/A</b> Andy Walker, Louise Arnold, PhD <i>Johnson Matthey</i>	2:15 pm	<b>Nanofibre Catalysts Address Need for Cost-Effective Emissions Control of Small Off-Road Engines .....11</b> John Finley <i>MEMPRO</i>
9:45 am	<b>SCR Based After Treatment Architectures for Low Tailpipe N2O Emissions .....N/A</b> Krishna Kamasamudram, PhD, Ashok Kumar, PhD, Yadan Tang, PhD, Aleksey Yezerets, PhD <i>Cummins</i>	2:45 pm	<b>Semi-Volatile Organic Compounds (SVOC) Emissions from a Heavy-Duty Diesel Engine .....N/A</b> Svitlana Kroll, Robert Fanick, PhD <i>Southwest Research Institute</i>
		3:15 pm	<b>Break</b>
		3:45 pm	<b>Evaluation of SCR Performance with Different Design Parameters Using Computational Model .....22</b> Liu Yang, PhD, Balaji Sukumar, PhD <i>Johnson Matthey</i>
10:15 am	<b>0.02 and Beyond .....N/A</b> Cary Henry, PhD <i>Southwest Research Institute</i>	4:15 pm	<b>Future Advanced Diesel Emission Concepts to Meet Worldwide Ultra-Low Emission Standards for Global Applications .....33</b> Thomas Korfer, Matthias Kotter, Markus Schonen, PhD, Manoj Panda, Julien Berquez, Murat Yumak, Tamas Szailer, PhD <i>FEV</i>
10:45 am	<b>Break</b>		
11:15 am	<b>2018 Bolt EV .....N/A</b> Warren Parsons, Mike Sigelko <i>General Motors</i>		
11:45 am	<b>Enablers and Barriers to xEV Implementation</b> Ted Miller, PhD .....N/A <i>Ford</i>	5:00 pm	<b>Adjournment &amp; Leave for TRUMPF</b>  <b>TRUMPF</b> 
12:15 am	<b>Q&amp;A Panel Discussion</b>		
12:30 pm	<b>Session Adjourned &amp; Lunch</b>		



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**Thursday, May 24, 2018**

AM Session	Catalytic Reduction Session Chair: Louise Arnold, PhD Director <i>Johnson Matthey</i>	PM Session	Systems Optimization Session Chair: Krishna Kamasamudram, PhD Technical Advisor <i>Cummins</i>	
Time	Room VT 425	Time	Room VT 425	
9:00 am	<b>Keynote: Exhaust Temperature Improvement Using Cylinder Deactivation for a MD and HD Engines &amp; Aftertreatment Temperature Challenge at Low Loads .....47</b> Jim McCarthy, PhD <i>Eaton</i>	1:30 pm	<b>Development of the Cummins Single Module™ Aftertreatment System .....116</b> Changsheng Su, PhD, Joe Brault, PhD, Achuth Munnannur, Krishna Kamasamudram PhD <i>Cummins</i>	
9:45 am	<b>Reactor System with Diesel Injection Capability for DOC Evaluations .....76</b> Ashok Kumar, PhD, Renee Zokoe, PhD, Saurabh Joshi, PhD, Krishna Kamasamudram, PhD, Aleksey Yezerets, PhD <i>Cummins</i>			
10:15 am	<b>Siliceous Zeolite-Supported Palladium Catalysts for Methane Oxidation .....84</b> Jing Lu, PhD, Arthur Reining, PhD, Agnes Raj, PhD, Haiying Chen, PhD, Joseph Fedeyko, PhD <i>Johnson Matthey</i>		2:00 pm	<b>An Off-Highway’s Perspective of Future Power Systems and Impact to Aftertreatment Systems</b> Eric Hruby .....126 <i>John Deere</i>
			2:30 pm	<b>Development of Low Pressure Drop Hysteresis DPF</b> Sukhjit Sidhu .....135 <i>NGK - Detroit</i>
10:45 am	<b>Break</b>		3:00 pm	<b>Break</b>
11:15 am	<b>Simulating Exhaust Thermal Management and High Efficiency SCR for Commercial Vehicles</b> Tom Harris, PhD, Tim Gardener, PhD, Gaurav Heda, PhD .....92 <i>Tenneco</i>	3:30 pm	<b>Urea Deposit Decomposition Modeling for Aftertreatment System Optimization .....149</b> Meng-Huang Lu, PhD, Tom Harris, PhD, Figen Lacin, PhD <i>Tenneco</i>	
11:45 am	<b>Heavy Duty FTP Transient Test Results on Multi-Cylinder Opposed-Piston Engine Demonstrating Rapid Exhaust Enthalpy Rise to Achieve Ultra Low NOx &amp; CO2</b> Samrat Patil, Ahmad Ghazi, Fabien Redon, Dan Schum, John Headly <i>Achates Power</i> Christopher Sharp, PhD <i>Southwest Research Institute .....N/A</i>			
12:15 pm	<b>Session Adjourned &amp; Lunch</b>		4:00 pm	<b>dCSC Technology for Low Emission Diesel Vehicles</b> Dongxia Liu, PhD .....N/A <i>Johnson Matthey</i>
			4:30 pm	<b>Adjournment &amp; Leave for IPG</b> 