

**2015 DOE HYDROGEN and FUEL CELLS PROGRAM and VEHICLE TECHNOLOGIES OFFICE  
ANNUAL MERIT REVIEW and PEER EVALUATION MEETING OVERALL SCHEDULE**

<b>Monday June 8 - Crystal Gateway Marriott Hotel</b>													
1:00 PM	<b>Keynote Address (Salons III&amp;IV)</b>												
3:00 PM	<b>Break</b>												
<b>Hydrogen and Fuel Cells Program Overviews and Vehicle Technologies Office Overviews</b>													
	<table border="1"> <tr> <td>Vehicle Technologies Office</td> <td>Hydrogen and Fuel Cells Program</td> </tr> <tr> <td><b>Salon III</b></td> <td><b>Salon IV</b></td> </tr> <tr> <td>3:30 PM Vehicle &amp; Systems Simulation</td> <td>Production and Delivery Overview</td> </tr> <tr> <td>4:00 PM Vehicle Technologies Analysis</td> <td>Hydrogen Storage Overview</td> </tr> <tr> <td>4:30 PM Advanced Combustion Engines</td> <td>Fuel Cells Overview</td> </tr> <tr> <td>5:00 PM Electrochemical Storage</td> <td>Manufacturing R&amp;D Overview</td> </tr> </table>	Vehicle Technologies Office	Hydrogen and Fuel Cells Program	<b>Salon III</b>	<b>Salon IV</b>	3:30 PM Vehicle & Systems Simulation	Production and Delivery Overview	4:00 PM Vehicle Technologies Analysis	Hydrogen Storage Overview	4:30 PM Advanced Combustion Engines	Fuel Cells Overview	5:00 PM Electrochemical Storage	Manufacturing R&D Overview
Vehicle Technologies Office	Hydrogen and Fuel Cells Program												
<b>Salon III</b>	<b>Salon IV</b>												
3:30 PM Vehicle & Systems Simulation	Production and Delivery Overview												
4:00 PM Vehicle Technologies Analysis	Hydrogen Storage Overview												
4:30 PM Advanced Combustion Engines	Fuel Cells Overview												
5:00 PM Electrochemical Storage	Manufacturing R&D Overview												
5:30 PM	<b>Break</b>												
5:45 PM	<b>Reviewer Orientation (Salon IV)</b>												
6:00 PM	<b>Poster Session I: Hydrogen Fuel Cells</b>												

Schedule as of: 4-Jun-15

**Crystal Gateway Marriott Hotel**

Salon	Tuesday June 9						Wednesday June 10						Thursday June 11						Friday June 12			
	A	I&II	C	H	K&J	B	A	I&II	C	H	K&J	B	A	I&II	C	H	K&J	B	G&F	H	J	K
7:15 AM	Continental Breakfast						Continental Breakfast						Continental Breakfast									
8:00 AM	<b>I&amp;II, 8:30-10:30</b> K&J, 8:30-10:30												LM		VSS	VAN			LM			
8:30 AM	Tech. Integration Sys. Analysis						EDT	ES	VSS	ST	FC	PD	LM	ES	VSS	VAN	FC		LM			
9:00 AM	Fuel & Lub. Techs.			Safety, C&S			EDT	ES	VSS	ST	FC	PD	LM	ES	VSS	VAN	FC	PD	LM			
9:30 AM	Materials			Tech. Validation			EDT	ES	VSS	ST	FC	PD	LM	ES	VSS	VAN	FC	PD	LM			
10:00 AM	Elec. Drive Tech.			Market Trans.			EDT	ES	VSS	ST	FC	PD	LM	ES	VSS	VAN	FC	PD	LM			
10:30 AM	Break						Break						Break						Break			
11:00 AM	EDT	ES	VSS	ST	FC	SCS	EDT	ES	VSS	ST	FC	PD	LM	ES	VSS	VAN	FC	PD	LM			
11:30 AM	EDT	ES	VSS	ST	FC	SCS	EDT	ES	VSS	ST	FC	PD	LM	ES	VSS	VAN	FC	PD	LM			
12:00 PM	EDT	ES	VSS	ST	FC	SCS	EDT	ES	VSS	ST	FC	PD	LM	ES	VSS	VAN	FC	PD	LM			
12:30 PM	<b>Lunch (Salons III&amp;IV)</b>						<b>Lunch (Salons III&amp;IV)</b>						<b>Lunch (Salons III&amp;IV)</b>									
	Sarah Studer, DOE: Presentation on H-Prize						David Ollett, NETL: Presentation on Contracts & Active Proj. Mgmt.						2014 AMR Brainstorming Session Summary followed by 2015 AMR Brainstorming Session									
	Sunita Satyapal, DOE: Hydrogen and Fuel Cell Technologies Program Awards Presentations						Steve Goguen, DOE: Vehicle Technologies Program Awards Presentations															
1:45 PM	EDT	ES	VSS	ST	FC	SCS	EDT	ES	VSS	ST	FC	PD	LM	ES	VSS		MN	PD				
2:15 PM	EDT	ES	VSS	ST	FC	SCS	EDT	ES	VSS	ST	FC	PD	LM	ES	VSS		MN	PD				
2:45 PM	EDT	ES	VSS	ST	FC	SCS	EDT	ES	VSS	ST	FC	PD	LM	ES	VSS		MN	PD				
3:15 PM	EDT	ES	VSS	ST	FC	SCS	LM	ES	VSS	ST	FC		LM	ES	VSS		MN	PD				
3:45 PM	Break						Break						Break									
4:15 PM	EDT	ES	VSS	ST	FC	SCS	LM	ES	VSS	BES			LM	ES	VSS			PD				
4:45 PM	EDT	ES	VSS	ST	FC	SCS	LM	ES	VSS	BES			LM	ES	VSS			PD				
5:15 PM	EDT	ES	VSS	ST	FC		LM	ES	VSS	BES			LM	ES	VSS			PD				
5:45 PM	EDT		VSS				LM		VSS													

<b>H<sub>2</sub> &amp; FC Program</b>	PD: Production & Delivery
	ST: Hydrogen Storage
	FC: Fuel Cells
	MN: Manufacturing
	TV: Technology Validation
	SCS: Safety, Codes, & Stand.
	MT: Market Transformation
SA: Systems Analysis	
H2RA: Recovery Act	

6:30 PM	<p align="center"><b>POSTER SESSION II:</b> Vehicle and Systems Simulation; Electrochemical Storage; Hydrogen Production and Delivery; Safety, Codes &amp; Standards; and Electric Drive Technologies</p>	<p align="center"><b>POSTER SESSION III:</b> Electrochemical Storage and Hydrogen Storage</p>	<p align="center"><b>POSTER SESSION IV:</b> Vehicle Technologies Analysis; Technology Validation; and Market Transformation</p>	<p><b>VT Programs</b></p> <p>ACE: Advanced Combustion ES: Energy Storage Techs. EDT: Electric Drive Techs. FT: Fuel &amp; Lubricant Techs. PM: Propulsion Materials LM: Lightweight Materials TI: Technology Integration VSS: Veh. &amp; Sys. Simulation VAN: Vehicle Analysis</p>
8:30 PM				

**Crystal City Marriott Hotel**

Salon	Tuesday June 9			Wednesday June 10			Thursday June 11			Friday June 12		
	D	E	F	D	E	F	D	E	F	D	E	F
7:15 AM	Continental Breakfast in Gateway			Continental Breakfast			Continental Breakfast			Continental Breakfast		
8:30 AM	Technical			PM	ACE	MT	FT	ACE	SCS	ACE		
9:00 AM	Overviews in the Crystal Gateway Marriott Hotel			PM	ACE	MT	FT	ACE	TV	ACE		
9:30 AM				PM	ACE	MT	FT	ACE	PD	ACE		
10:00 AM	Break in Gateway			PM	ACE	MT	FT	ACE	SCS	ACE		
10:30 AM				Break	Break	Break	Break	Break	Break	Break	Break	
11:00 AM	TI	ACE	SA	PM	ACE		FT	ACE	PD	ACE		
11:30 AM	TI	ACE	SA	PM	ACE		FT	ACE	SA	ACE		
12:00 PM	TI	ACE	SA	PM	ACE		FT	ACE	SA	ACE		
12:30 PM	Lunch*			Lunch*			Lunch*			Lunch*		
1:45 PM	TI	ACE	SA	PM	ACE	TV	FT	ACE	SA	ACE		
2:15 PM	TI	ACE	SA	PM	ACE	TV	FT	ACE	SA	ACE		
2:45 PM	TI	ACE	SA	PM	ACE	TV	FT	ACE	SA	ACE		
3:15 PM	TI	ACE	SA	PM	ACE	TV	FT	ACE	TV	ACE		
3:45 PM	Break			Break			Break			Break		
4:15 PM	TI	ACE	SA	PM	ACE	TV	FT	ACE	TV	ACE		
4:45 PM	TI	ACE	SA	PM	ACE	TV	FT	ACE	TV	ACE		
5:15 PM		ACE		PM	ACE		FT	ACE	TV	ACE		
5:45 PM												

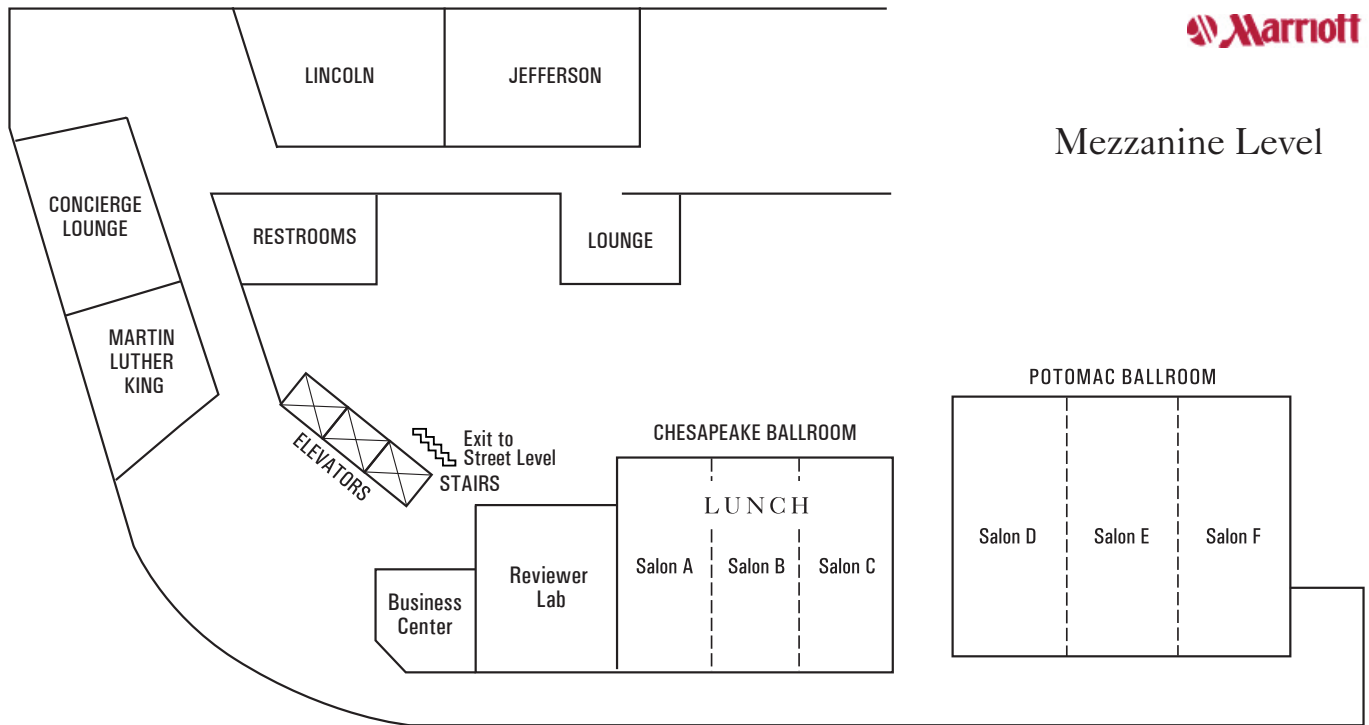
**Save the date: the 2016  
AMR will be  
June 6-10**



\*Awards ceremonies and lunch speakers will take place in the Crystal Gateway Marriott Hotel



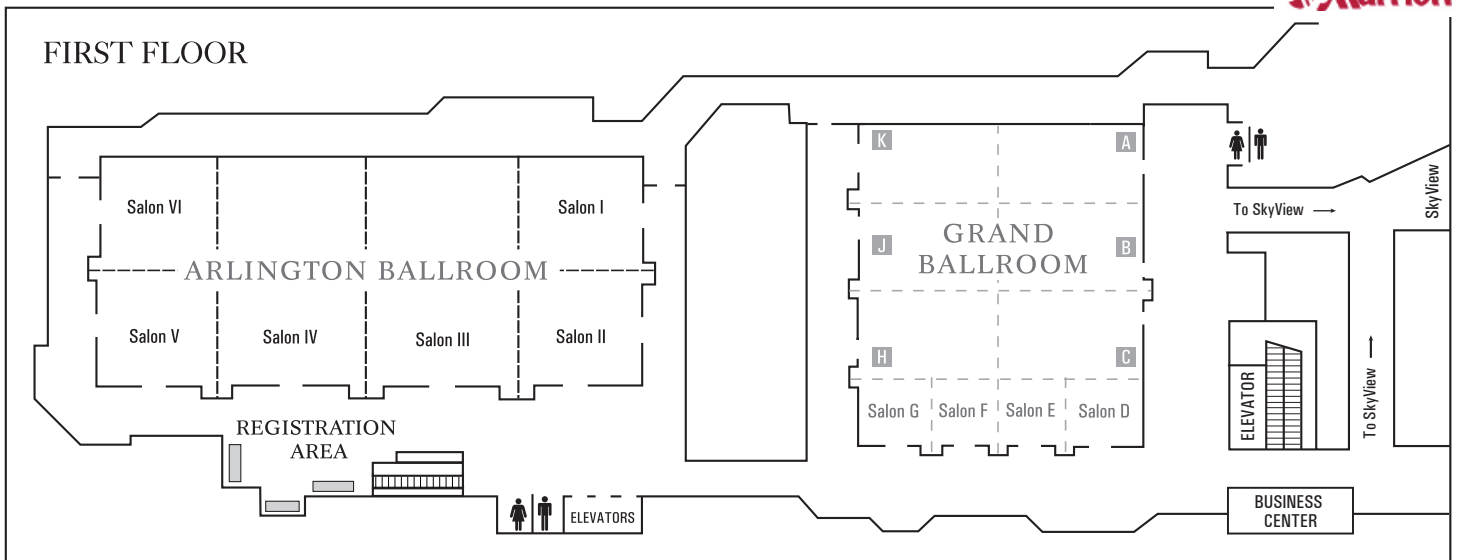
### Mezzanine Level



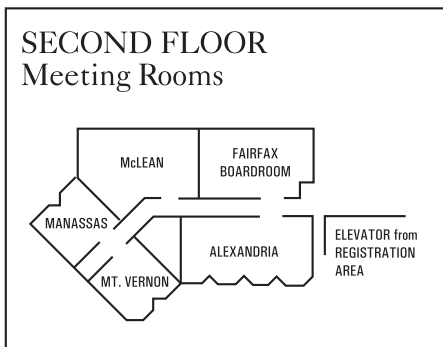
## Crystal City Marriott



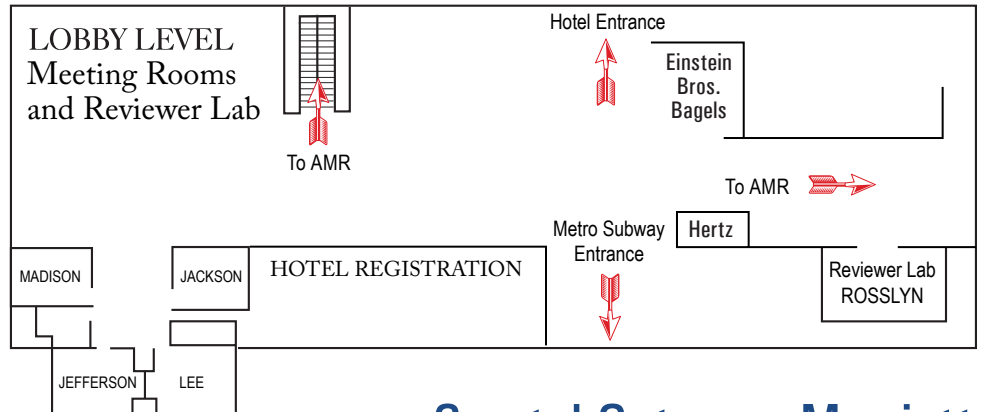
### FIRST FLOOR



### SECOND FLOOR Meeting Rooms



### LOBBY LEVEL Meeting Rooms and Reviewer Lab



## Crystal Gateway Marriott

## Monday, June 8 - Poster Presentations

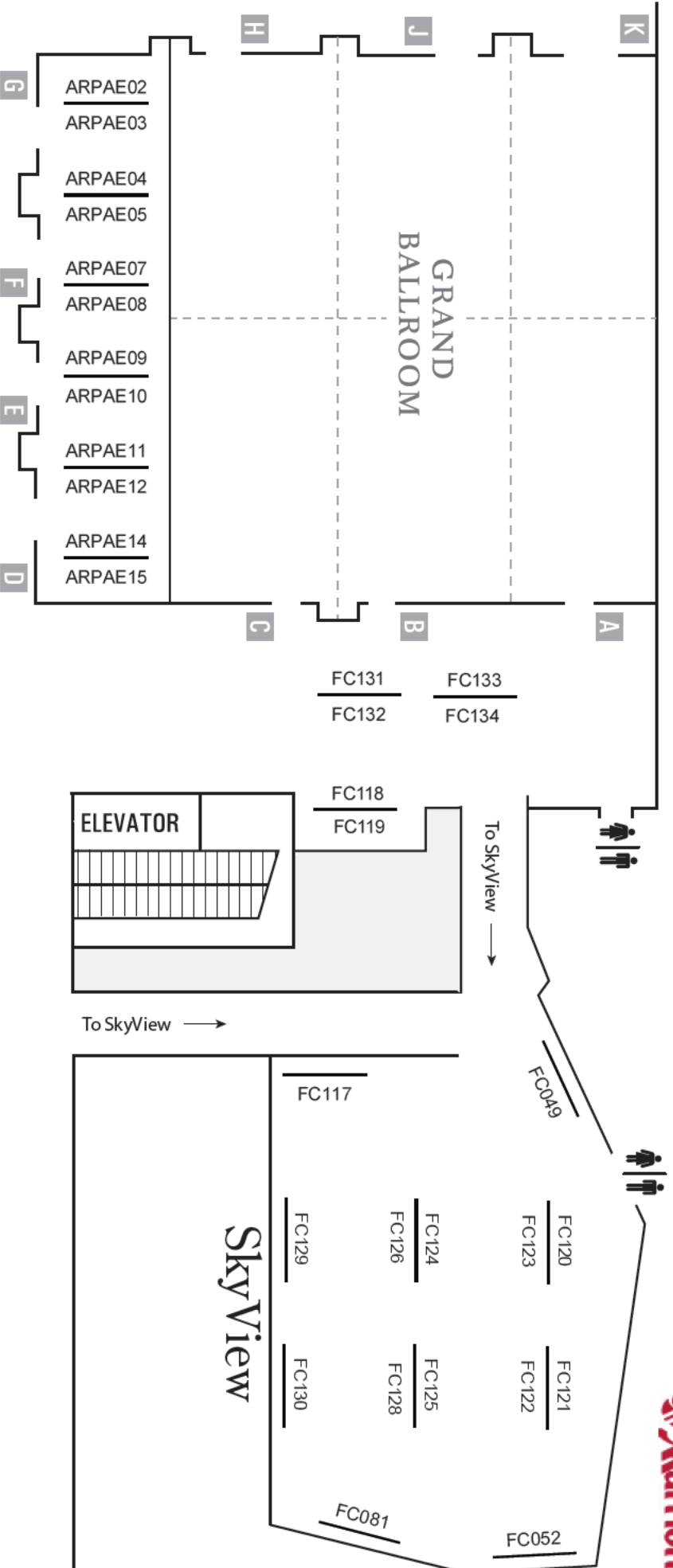
### Crystal Gateway Hotel, 6:00-8:00 PM

Hydrogen Fuel Cells
FC049; David Harvey, Ballard: Open-Source Performance and Durability Model: Consideration of Membrane Properties on Cathode Degradation
FC052; Tommy Rockward, LANL: Technical Assistance to Developers
FC081; Jennifer Kurtz, NREL: Fuel Cell Technology Status: Degradation
FC117; Hui Xu, Giner, Inc.: Ionomer Dispersion Impact on PEM Fuel Cell and Electrolyzer Durability
FC118; D.J. Liu, ANL: Novel Non-PGM Catalysts from Rationally Designed 3-D Precursors
FC119; Hector Colon-Mercado, SRNL: PGM Free Catalysts for PEMFC
FC120; Yong Wang, PNNL: High Performance and Durable Low PGM Cathode Catalysts
FC121; David Cullen, ORNL: Magnetic Annealing of Pt-Alloy Nanostructured Thin Film Catalysts for Enhanced Activity
FC122; Tom Zawodzinski, ORNL: High Conductivity Durable Anion Conducting Membranes
FC123; Yu Seung Kim, LANL: Advanced Hydroxide Conducting Membranes
FC124; Cy Fujimoto, SNL: High Temperature and Low Humidity Membranes
FC125; Mahlon Wilson, LANL: Engineered Low-Pt Catalyst Layers
FC126; Stoyan Bliznakov, BNL: Semi-Automated MEA Fabrication with Ultra-Low Total PGM Loadings
FC128; Emory DeCastro, Advent Technologies, Inc.: Facilitated Direct Liquid Fuel Cells with High Temperature Membrane Electrode Assemblies
FC129; Hui Xu, Giner, Inc.: Advanced Catalysts and MEAs for Reversible Alkaline Membrane Fuel Cells
FC130; Alexey Serov, University of New Mexico: Development of non-PGM Catalysts for Hydrogen Oxidation Reaction in Alkaline Media
FC131; Yushan Yan, University of Delaware: Highly Stable Anion-Exchange Membranes for High-Voltage Redox-Flow Batteries
FC132; Sanjeev Mukerjee, Northeastern University: Innovative Non PGM Catalysts for CHP Relevant Proton Exchange Membrane Fuel Cells
FC133; Nemanja Danilovic, Proton Energy Systems: Non-Platinum Group Metal OER/ORR Catalysts for Alkaline Membrane Fuel Cells and Electrolyzers
FC134; Paul Matter, pH Matter, LLC: Non-Precious Metal Bi-Functional Catalysts
ARPAE02; Meilin Liu, Georgia Tech: A Novel Intermediate-Temperature Fuel Cell Tailored for Efficient Utilization of Methane
ARPAE03; Gabriel Iftime, PARC: Medium-Temperature Oxygen-Conducting Fuel Cell Based on a Novel Membrane Structure
ARPAE04; Alex Papandrew, ORNL: Nanocomposite Electrodes for a Solid Acid Fuel Cell Stack Operating on Reformate
ARPAE05; Bryan Blackburn, Redox Power Systems: Low Temperature Solid Oxide Fuel Cells for Transformational Energy Conversion
ARPAE07; Masaru Tsuchiya, SiEnergy: Direct Hydrocarbon Fuel Cell - Battery Hybrid Electrochemical System
ARPAE08; Yunfeng Lu, UCLA: Fuel Cells with Dynamic Response Capability Based on Energy Storage Electrodes with Catalytic Function
ARPAE09; Cuijuan Zhang, University of South Carolina: A Novel Intermediate-temperature Bifunctional Ceramic Fuel Cell Energy System
ARPAE10; Dave Tew, UTRC: Development of an Intermediate Temperature Metal Supported Proton Conducting Solid Oxide Fuel Cell Stack
ARPAE11; Ted Krause, ANL: Intermediate Temperature Hybrid Fuel Cell System for the Conversion of Natural to Electricity and Liquid Fuels
ARPAE12; Carl Willman, FuelCell Energy: Dual Mode Intermediate Temperature Fuel Cell: Liquid Fuels and Electricity
ARPAE14; Elango Elangovan, Ceramtec: Intermediate Temperature Proton Conducting Fuel Cells for Transportation Applications
ARPAE15; Chinbay Fan, GTI: Methane to Methanol Fuel: A Low Temperature Process



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# POSTER MAP

Monday, June 8

Crystal Gateway Marriott

2015 DOE ANNUAL MERIT REVIEW AND PEER EVALUATION MEETING

## Tuesday, June 9 - Oral Presentations

Hotel	Crystal Gateway	Crystal Gateway	Crystal Gateway
Salon	Salon A	Salons I&II	Salon C
11:00 AM	EDT032; Christopher Whaling, Synthesis Partners: North American Electric Traction Drive Supply Chain Analysis: Focus on Motors	ES228; Shabbir Ahmed, ANL: BatPaC Model Development	VSS143; Mike Duoba, ANL: Advanced Vehicle Test Procedure Development: Hybrid System Power Rating
11:30 AM	EDT006; Tim Burress, ORNL: Benchmarking EV and HEV Technologies	ES111; Kevin Gallagher, ANL: PHEV and EV Battery Performance and Cost Assessment	VSS096; Barney Carlson, INL: Wireless & Conductive Charging Testing to support Code & Standards
12:00 PM	EDT015; Iver Anderson, Ames: Development of Radically Enhanced alnico Magnets (DREaM) for Traction Drive Motors	ES229; Linda Gaines, ANL: Lithium-Ion Battery Production and Recycling Materials Issues	VSS144; Perry Jones, ORNL: Green Racing Protocols & Technology Applications
<b>12:30 PM LUNCH</b>	<b>Sarah Studer, DOE: Presentation on H-Prize Sunita Satyapal, DOE: Hydrogen and Fuel Cell Technologies Program Awards Presentations</b>		
1:45 PM	EDT044; Josh Ley, UQM Technologies, Inc.: Unique Lanthide-Free Motor Construction	ES108; Tien Duong, DOE: Overview and Progress of the Advanced Battery Materials Research (BMR) Program	VSS029; Jeremy Diez, Intertek: Advanced Vehicle Testing & Evaluation
2:15 PM	EDT045; Ayman El-Refae, General Electric Global: Alternative High-Performance Motors with Non-Rare Earth Materials	ES218; John Zhang, ANL: Fluorinated Electrolyte for 5-V Li-Ion Chemistry	VSS021; Matthew Shirk, INL: Idaho National Laboratory Testing of Advanced Technology Vehicles
2:45 PM	EDT065; Dan Ludois, U of Wisconsin-Madison: Brushless and Permanent Magnet Free Wound Field Synchronous Motors for EV Traction	ES217; Joe Sunstrom, Daikin America: Daikin Advanced Lithium Ion Battery Technology – High Voltage Electrolyte	VSS030; Kevin Stutenberg, ANL: Advanced Technology Vehicle Lab Benchmarking (L1&L2)
3:15 PM	EDT062; Tim Burress, ORNL: Non-Rare Earth Motor Development	ES219; Dee Strand, Wildcat Discovery: Novel Non-Carbonate Based Electrolytes for Silicon Anodes	VSS097; Matthew Jeffers, NREL: Electric Drive Vehicle Climate Control Load Reduction
3:45 PM	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
4:15 PM	EDT064; Kevin Bennion, NREL: Electric Motor Thermal Management R&D	ES182; Nancy Dudney, ORNL: Composite Electrolytes to Stabilize Metallic Lithium Anodes	VSS132; Wenhua Yu, ANL: Thermal Control of Power Electronics of Electric Vehicles with Small Channel Coolant Boiling
4:45 PM	EDT060; Dan Tan, GE Global Research: High Performance DC Bus Film Capacitor	ES230; Yi Cui, Stanford University: High Energy Lithium-Sulfur Cathodes	TI024; Imtiaz Haque, Clemson University: GATE Center of Excellence in Sustainable Vehicle Systems
5:15 PM	EDT059; Angelo Yializis, Sigma Technologies International: High Temperature DC-Bus Capacitor Cost Reduction and Performance Improvements	ES224; Nitash Balsara, LBNL: Fundamental Studies of Lithium-Sulfur Cell Chemistry	TI025; Joel Anstrom, Pennsylvania State University: Penn State DOE Graduate Automotive Technology Education (GATE) Program for In-Vehicle, High-Power Energy Storage Systems
5:45 PM	EDT061; Balu Balachandran, ANL: Cost-Effective Fabrication of High-Temperature Ceramic Capacitors for Power Inverters		TI022; Giorgio Rizzoni, The Ohio State University: GATE: Energy Efficient Vehicles for Sustainable Mobility



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## Tuesday, June 9 - Oral Presentations

Hotel Salon	Crystal Gateway Salons H	Crystal Gateway Salons J&K	Crystal Gateway Salon B
11:00 AM	ST001; Rajesh Ahluwalia, ANL: System Level Analysis of Hydrogen Storage Options	FC109; Michael Yandrasits, 3M: New Fuel Cell Membranes with Improved Durability & Performance	SCS011; Katrina Groth, SNL: Hydrogen behavior and Quantitative Risk Assessment
11:30 AM	ST100; Brian James, Strategic Analysis, Inc.: Hydrogen Storage Cost Analysis	FC110; Andrew Herring, Colorado School of Mines: Advanced Hybrid Membranes for Next Generation PEMFC Automotive Applications	SCS002; Robert Burgess, NREL: Component Standard Research & Development
12:00 PM	ST004; Don Anton, SRNL: Hydrogen Storage Engineering Center of Excellence	FC007; Bryan Pivovar, NREL: Extended, Continuous Pt Nanostructures in Thick, Dispersed Electrodes	SCS005; Brian Somerday, SNL: R&D for Safety, Codes and Standards: Materials and Components Compatibility
<b>12:30 PM LUNCH</b>	<b>Sarah Studer, DOE: Presentation on H-Prize Sunita Satyapal, DOE: Hydrogen and Fuel Cell Technologies Program Awards Presentations</b>		
1:45 PM	ST044; Bruce Hardy, SRNL: SRNL Technical Work Scope for the Hydrogen Storage Engineering Center of Excellence: Design and Testing of Adsorbent Storage	FC008; Vojislav Stamenkovic, ANL: Nanosegregated Cathode Catalysts with Ultra-Low Platinum Loading	SCS007; Tommy Rockward, LANL: Hydrogen Fuel Quality
2:15 PM	ST010; Mike Veenstra, Ford Motor: Ford/BASF-SE/UM Activities in Support of the Hydrogen Storage Engineering Center of Excellence	FC009; Radoslav Adzic, BNL: Contiguous Platinum Monolayer Oxygen Reduction Electrocatalysts on High-Stability-Low-Cost Supports	SCS021; Bill Buttner, NREL: NREL Hydrogen Sensor Testing Laboratory
2:45 PM	ST046; Kevin Drost, Oregon State U: Microscale Enhancement of Heat and Mass Transfer for Hydrogen Energy Storage	FC085; Nilesh Dale, Nissan: Synthesis and Characterization of Mixed-Conducting Corrosion Resistant Oxide Supports	SCS019; Nick Barilo, PNNL: Hydrogen Safety Panel, Safety Knowledge Tools and First Responder Training Resources
3:15 PM	ST006; Bart van Hassel, UTRC: Advancement of Systems Designs and Key Engineering Technologies for Materials Based Hydrogen Storage	FC086; Sanjeev Mukerjee, Northeastern Univ: Development of Novel Non-Pt Group Metal Electrocatalysts for Proton Exchange Membrane Fuel Cell Applications	SCS001; Carl Rivkin, NREL: National Codes and Standards Deployment and Outreach
3:45 PM	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
4:15 PM	ST005; Kriston Brooks, PNNL: Systems Engineering of Chemical Hydrogen, Pressure Vessel, and Balance of Plant for On-Board Hydrogen Storage	FC088; Branko Popov, U of South Carolina: Development of Ultra-Low Doped-Pt Cathode Catalysts for PEM Fuel Cells	SCS022; Karen Hall, Fuel Cell & Hydrogen Energy Association: Fuel Cell & Hydrogen Energy Association Codes and Standards Support
4:45 PM	ST008; Matthew Thornton, NREL: System Design, Analysis, and Modeling for Hydrogen Storage Systems	FC107; Piotr Zelenay, LANL: Non-Precious Metal Fuel Cell Cathodes: Catalyst Development & Electrode Structure Design	SCS004; Eric Brosha, LANL: Hydrogen Safety, Codes and Standards: Sensors
5:15 PM	ST113; Chris San Marchi, SNL: Innovative Development, Selection and Testing to Reduce Cost and Weight of Materials for BOP Components	FC114; Deborah Myers, ANL: High-Throughput Synthesis, ORR Activity Modeling, and Testing of non-PGM PEMFC Cathode Catalysts	



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## Tuesday, June 9 - Oral Presentations

Hotel	Crystal City	Crystal City	Crystal City
Salon	Salon D	Salon E	Salon F
11:00 AM	TI001; Dennis Smith, DOE: Clean Cities Overview	ACE001; Mark Musculus, SNL: Heavy-Duty Low-Temperature and Diesel Combustion & Heavy-Duty Combustion Modeling	SA044; Aymeric Rousseau, ANL: Impact of Fuel Cell System Peak Efficiency on Fuel Consumption and Cost
11:30 AM	TI056; Bo Saulsbury, ORNL: Fuel Economy Guide and fueconomy.gov Website	ACE002; Stephen Busch, SNL: Light-Duty Diesel Combustion	SA050; Zhenhong Lin, ORNL: GPRA Analysis: Impact of Program Targets on Vehicle Penetration and Benefits
12:00 PM	TI057; Brian West, ORNL: Fuel Economy Information Project - Research, Data Validation, and Technical Assistance Related to Collecting, Analyzing, and Disseminating Accurate Fuel Economy Information	ACE004; John Dec, SNL: Low-Temperature Gasoline Combustion (LTGC) Engine Research	SA036; Todd Ramsden, NREL: Pathway Analysis: Projected Cost, Lifecycle Energy Use and Emissions of Emerging Hydrogen Technologies
<b>12:30 PM LUNCH</b>	<b>Sarah Studer, DOE: Presentation on H-Prize</b> <b>Sunita Satyapal, DOE: Hydrogen and Fuel Cell Technologies Program Awards Presentations</b>		
1:45 PM	TI058; Andrew Hudgins, NREL: Alternative Fuel Station Locator	ACE005; Lyle Pickett, SNL: Spray Combustion Cross-Cut Engine Research	SA054; Dennis Papadias, ANL: Performance and Cost Analysis for a 300 kW Tri-generation Molten Carbonate Fuel Cell System
2:15 PM	TI059; Johanna Levene, NREL: Alternative Fuels Data Center and API	ACE006; Isaac Ekoto, SNL: Automotive Low Temperature Gasoline Combustion Engine Research	SA035; Marianne Mintz, ANL: Employment Impacts of Infrastructure Development for Hydrogen and Fuel Cell Technologies
2:45 PM	TI060; Wendy Dafoe, NREL: Clean Cities Coordinator Resource Building and National Networking Activities	ACE007; Joe Oefelein, SNL: Large Eddy Simulation (LES) Applied to Advanced Engine Combustion Research	SA039; Amgad Elgowainy, ANL: Life-Cycle Analysis of Water Consumption for Hydrogen Production
3:15 PM	TI061; John Gonzales, NREL: Clean Cities "Tiger Team" Technical and Problem Solving Assistance	ACE014; David Carrington, LANL: 2015 KIVA-hpFE Development: A Robust and Accurate Engine Modeling Software	SA055; Rebecca Levinson, SNL: Hydrogen Analysis with the Sandia ParaChoice Model
3:45 PM	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
4:15 PM	TI062; Marcy Rood Werpy, ANL: Collegiate Programs: Advanced Vehicle Technology Competitions (AVTC), Graduate Research Assistants (GRAs), and Clean Cities University Workforce Development Program	ACE012; Russell Whitesides, LLNL: Model Development and Analysis of Clean & Efficient Engine Combustion	SA056; David Greene, U of Tennessee: Status and Prospects of the N.A. Non-Automotive Fuel Cell Industry: 2014 Update
4:45 PM	TI063; Marcy Rood Werpy, ANL: Alternative Fuel Tools and Technical Assistance Activities	ACE013; Bill Pitz, LLNL: Chemical Kinetic Models for Advanced Engine Combustion	SA047; Brendan Shaffer, UCI: Tri-Generation Fuel Cell Technologies for Location-Specific Applications
5:15 PM		ACE076; Matthew McNenly, LLNL: Improved Solvers for Advanced Engine Combustion Simulation	



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## Tuesday, June 9 - Poster Presentations Crystal Gateway Hotel, 6:30-8:30 PM

<b>Vehicle and Systems Simulation</b>
VSS095; Keith Hardy, ANL: EV - Smart Grid Research & Interoperability Activities
VSS164; Aymeric Rousseau, ANL: Evaluate VTO Benefits (BaSce)
VSS165; John Rugh, NREL: Design and Implementation of a Thermal Load Reduction System in a Hyundai PHEV
VSS166; Neeraj Shidore, ANL: Advanced Transmission Selection to Provide Accurate VTO Benefits
VSS142; Richard Pratt, PNNL: PEV / Grid Integration Study
VSS167; Brian Hunter, NREL: Integrated Network Testbed for Energy Grid Research and Technology Experimentation (INTEGRATE)
VSS134; Jason Lustbader, NREL: Vehicle Thermal Systems Modeling in Simulink
VSS001; Ken Kelly, NREL: Medium and Heavy-Duty Vehicle Field Evaluations
VSS140; Scott Curran, ORNL: Impacts of Advanced Combustion Engines
VSS058; Oyelayo Ajayi, ANL: Development of High Power Density Driveline for Vehicles
VSS169; Jeffrey Wishart, Intertek: PEV-EVSE Interoperability Project
VSS170; John Smart, INL: Lessons Learned about Workplace Charging in The EV Project
VSS171; Richard Carlson, INL: Electric Vehicle Mile Traveled (eVMT): On-road Results and Analysis
<b>Electrochemical Storage</b>
ES132; Gary Voelker, Miltec UV International: Utilization of UV or EB Curing Technology to Significantly Reduce Costs and VOCs in the Manufacture of Lithium-Ion Battery Electrodes
ES133; YK Son, Johnson Controls: Significant Cost Improvement of Li-Ion Cells Through Non-NMP Electrode Coating, Direct Separator Coating, and Fast Formation Technologies
ES134; Mike Wixom, Navitas Systems: Dry Process Electrode Fabrication
ES135; Brad Brodie, DENSO International America: Stand-Alone Battery Thermal Management System
ES136; Steve Carlson, Optodot Corporation: Innovative Manufacturing and Materials for Low-Cost Lithium-Ion Batteries
ES200; Christian Shaffer, EC-Power: Efficient Safety and Degradation Modeling of Automotive Li-ion Cells and Pack
ES201; Ira Bloom, ANL: Electrochemical Performance Testing
ES202; Jon Christophersen, INL: INL Electrochemical Performance Testing
ES203; Christopher Orendorff, SNL: Battery Safety Testing
ES204; Matthew Keyser, NREL: Battery Thermal Characterization
ES205; Steven Sloop, OnTo Technology: Giga Life Cycle: Manufacture of Cells from Recycled EV Li-ion Batteries
ES206; Jong Yoo, Applied Spectra: Real-time Metrology for Li-ion Battery R&D and Manufacturing
ES119; Taeyoung Han, General Motors: Development of Computer-Aided Design Tools for Automotive Batteries
ES197; Gi-Heon Kim, NREL: Significant Enhancement of Computational Efficiency in Nonlinear Multiscale Battery Model for Computer Aided Engineering
ES198; Harry Moffat, SNL: Mechanistic Modeling Framework for Predicting Extreme Battery Response: Coupled Hierarchical Models for Thermal, Mechanical, Electrical and (Electro)chemical Processes
ES199; Ahmad Pesaran, NREL: Coupling Mechanical with Electrochemical-Thermal Models Batteries Under Abuse
ES121; John Turner, ORNL: Open Architecture Software for CAEBAT
ES236; Shriram Santhanagopalan, NREL: Crash Propagation in Automotive Batteries: Simulations and Validation
ES237; Robert Privette, XG Sciences: Low-cost, High Energy Si/Graphene Anodes for Li-ion Batteries
ES238; Pu Zhang, Navitas Systems: Low-Cost, High-Capacity Lithium Ion Batteries through Modified Surface and Microstructure
ES239; David King, Pneumaticoat Technologies: Scale-Up of Low-Cost Encapsulation Technologies for High Capacity and High Voltage Electrode Powders
ES240; Cary Hayner, Sinode Systems: High Energy Anode Material Development for Li-ion Batteries
<b>Hydrogen Production and Delivery</b>
PD095; Carrie Eckert, NREL: Improving Cyanobacterial O <sub>2</sub> -Tolerance using CBS Hydrogenase for H <sub>2</sub> Production
PD122; Bruce Logan, Penn State: Hydrogen Production from Continuous Flow Bioelectrochemical Systems Treating Fermentation Wastewater
PD118; Yanfa Yan, U of Toledo: New Metal Oxides for Efficient Hydrogen Production via Solar Water Splitting
PD119; Tom Jaramillo, Stanford University: NSF/DOE Solar Hydrogen Fuel: Engineering Surfaces, Interfaces, and Bulk Materials for Unassisted Solar Photoelectrochemical (PEC) Water Splitting
PD120; Charles Musgrave, U of Colorado at Boulder: Accelerated Discovery of Advanced RedOx Materials for STWS to Produce Renewable Hydrogen
PD121; G. Charles Dismukes, Rutgers University: Tunable Photoanode-Photocathode-Catalyst Interface Systems for Efficient Solar Water Splitting
PD100; Kevin Harrison, NREL: 700 bar Hydrogen Dispenser Hose Reliability Improvement
PD123; Katherine Ayers, Proton OnSite: High Performance Platinum Group Metal Free Membrane Electrode Assemblies Through Control of Interfacial Processes
PD124; Randy Petri, Versa Power Systems: Solid Oxide Based Electrolysis and Stack Technology with Ultra-High Electrolysis Current Density and Efficiency
PD125; Shane Ardo, University of California, Irvine: Tandem Particle-Slurry Batch Reactors for Solar Water Splitting
PD126; Ted Barnes, Gas Technology Institute: Compressor-less Hydrogen Refueling Station using Thermal Compression
PD127; Y-H Percival Zhang, Virginia Tech: Sweet Hydrogen: High-yield Production of Hydrogen from Biomass Sugars Catalyzed by in vitro Synthetic Biosystems
PD128; Jeff Serfass, Hydrogen Education Foundation: 2014 – 2016 H <sub>2</sub> Refuel H-Prize
<b>Safety, Codes &amp; Standards</b>
SCS017; Salvador Aceves, LLNL: Hands-on Hydrogen Safety Training
<b>Electric Drive Technologies</b>
EDT070; Gilbert Moreno, NREL: Thermal Performance Benchmarking
EDT071; Lixin Tang, ORNL: Multi-Speed Range Electric Motor R&D
EDT072; Robert Erickson, U of Colorado: A Disruptive Approach to Electric Vehicle Power Electronics
EDT073; Jeffrey Casady, Cree: 88 Kilowatt Automotive Inverter with New 900 Volt Silicon Carbide MOSFET Technology

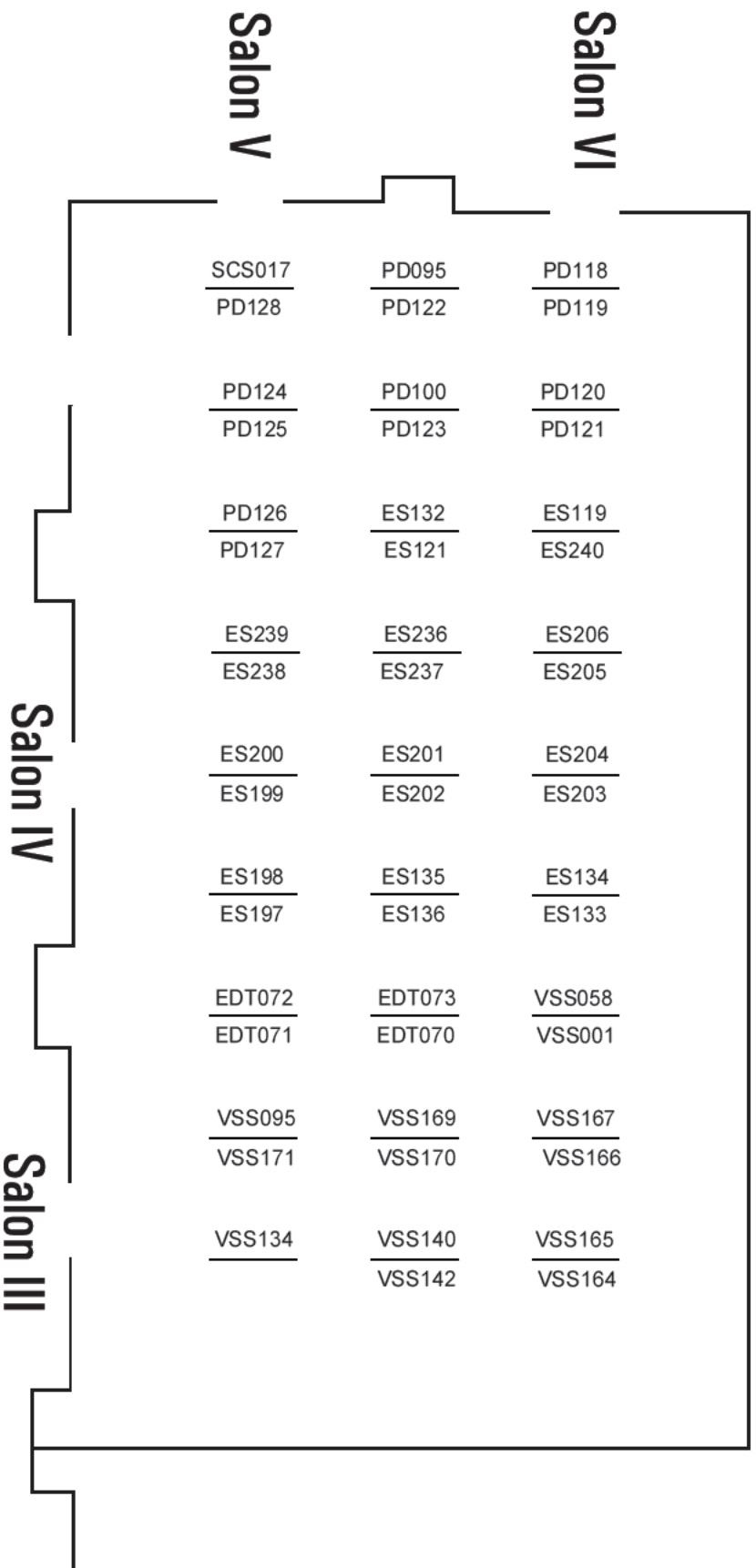


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# ARLINGTON BALLROOM



**POSTER MAP**  
**Tuesday, June 9**

**Crystal Gateway Marriott**

**2015 DOE ANNUAL MERIT REVIEW AND PEER EVALUATION MEETING**

## Wednesday, June 10 - Oral Presentations

Hotel	Crystal Gateway	Crystal Gateway	Crystal Gateway
Salon	Salon A	Salons I&II	Salon C
8:30 AM	EDT040; Zilai Zhao, General Motors: Next Generation Inverter	ES106; Jagjit Nanda, ORNL: Studies on High Capacity Cathodes for Advanced Lithium-ion Systems	TI020; Chris Mi, Regents University of Michigan: GATE Center for Electric Drive Transportation
9:00 AM	EDT058; Kraig Olejniczak, APEI Inc.: Advanced Low-Cost SiC and GaN Wide Bandgap Inverters for Under-the-Hood Electric Vehicle Traction Drives	ES056; Jason Zhang, PNNL: Development of High-Energy Cathode Materials	TI021; Gregory Plett, University of Colorado Colorado Springs: Innovative Drivetrains in Electric Automotive Technology Education (IDEATE)
9:30 AM	EDT053; Madhu Chinthavali, ORNL: Electric Drive Inverter R&D	ES051; Arumugam Manthiram, U of Texas at Austin : High- Voltage, High-Capacity Polyanion Cathodes	TI023; Gregory Shaver, Purdue University: Hoosier Heavy Hybrid Center of Excellence (H3CoE) at Purdue University
10:00 AM	EDT054; Gui-Jia Su, ORNL: Innovative Technologies for Converters and Chargers	ES049; Michael Thackeray, ANL : Design and Evaluation of High Capacity Cathodes	VSS156; Tony Markel, NREL: Electric Vehicle Grid Integration
10:30 AM	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
11:00 AM	EDT066; Gui-Jia Su, ORNL: Traction Drive Systems with Integrated Wireless Charging	ES183; Feng Wang, BNL : In-Situ Solvothermal Synthesis of Novel High Capacity Cathodes	VSS103; Omer Onar, ORNL: Wireless Charging of Electric Vehicles
11:30 AM	EDT067; Charles Zhu, Delta Products Corporation: High-Efficiency High-Density GaN-Based 6.6kW Bidirectional On-Board Charger for PEVs	ES052; Marca Doeff, LBNL : Design of High Performance, High Energy Cathode Materials	VSS102; Allan Lewis, Hyundai: High Efficiency, Low EMI and Positioning Tolerant Wireless Charging of EVs
12:00 PM	EDT068; Nance Ericson, ORNL: Gate Driver Optimization for WBG Applications	ES184; Nancy Dudney, ORNL: Mixed polyanion (MP) glasses as cathode materials	VSS152; Omer Onar, ORNL: Technology Requirements for High Power Applications of Wireless Power Transfer
<b>12:30 PM LUNCH</b>	<b>David Ollett, NETL: Presentation on Contracts &amp; Active Project Management</b> <b>Steve Goguen, DOE: Vehicle Technologies Program Awards Presentations</b>		
1:45 PM	EDT069; Kevin Bennion, NREL: Power Electronics Thermal Management R&D	ES231; Stanley Whittingham, Binghamton U.-SUNY: High Energy Density Lithium Battery	VSS153; Aymeric Rousseau, ANL: Accelerate the Development and Introduction of Advanced Technologies Through Model Based System Engineering
2:15 PM	EDT049; Zhenxian Liang, ORNL: Advanced Packaging Technologies and Designs	ES232; Vincent Battaglia, LBNL: Electrode Fabrication and Performance Benchmarking	VSS075; Jason Lustbader, NREL: CoolCab Test and Evaluation and CoolCalc HVAC Tool Development
2:45 PM	EDT063; Doug DeVoto, NREL: Performance and Reliability of Bonded Interfaces for High-Temperature Packaging	ES222; Karim Zaghbi, Hydro Quebec: Electrode Architecture-Assembly of Battery Materials and Electrodes	VSS154; Aymeric Rousseau, ANL: Fuel Displacement Potential of Advanced Technologies under Different Thermal Conditions
3:15 PM	LM999; Will Joost, DOE: Lightweight Materials Overview	ES071; Yet-Ming Chiang, Massachusetts Institute of Technology: Design and Scalable Assembly of High Density Low Tortuosity Electrodes	VSS155; Jeff Gonder, NREL: Analyzing Real-World Light Duty Vehicle Efficiency Benefits
3:45 PM	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
4:15 PM	LM080; Lou Hector, USAMP: Integrated Computational Materials Engineering Approach to Development of Lightweight 3GAHSS Vehicle Assembly	ES223; Gao Liu, LBNL: Hierarchical Assembly of Inorganic/Organic Hybrid Si Negative Electrodes	VSS168; Richard Carlson, INL: 12 Volt Auxiliary Load On-road Analysis
4:45 PM	LM089; Shiyun Ruan, Xtalco Corporation: High-Strength Electroformed Nanostructured Aluminum for Lightweight Automotive Applications	ES233; Vincent Giordani, Liox: Efficient Rechargeable Li/O2 Batteries Utilizing Stable Inorganic Molten Salt Electrolytes	VSS136; Mingyu Wang, Delphi Automotive: ePATHS - electrical PCM Assisted Thermal Heating System
5:15 PM	LM079; Rich Davies, PNNL: Enhanced Room-Temperature Formability in High-Strength Aluminum Alloys through Pulse-Pressure Forming	ES066; Khalil Amine, ANL: Development of Novel Electrolytes and Catalysts for Li-Air Batteries	VSS135; Heidi Crandall, Halla Visteon: Advanced Climate Systems for EV Extended Range (ACSforEVER)
5:45 PM	LM078; Xin Sun, PNNL: Aluminum Formability Extension through Superior Blank Processing		VSS157; Sourav Chowdhury, Delphi Automotive Systems, LLC: Unitary Thermal Energy Management for Propulsion Range Augmentation (UTEMPRA)



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## Wednesday, June 10 - Oral Presentations

Hotel	Crystal Gateway	Crystal Gateway	Crystal Gateway
Salon	Salon H	Salon J&K	Salon B
8:30 AM	ST111; Guillaume Petitpas, LLNL: Thermomechanical Cycling of Thin Liner High Fiber Fraction Cryogenic Pressure Vessels Rapidly Refueled by LH2 Pump to 700 Bar	FC104; Andrew Steinbach, 3M: High Performance, Durable, Low Cost Membrane Electrode Assemblies for Transportation Applications	PD014; Amgad Elgowainy, ANL: Hydrogen Delivery Infrastructure Analysis
9:00 AM	ST101; David Gotthold, PNNL: Enhanced Materials and Design Parameters for Reducing the Cost of Hydrogen Storage Tanks	FC106; Deborah Myers, ANL: Rationally Designed Catalyst Layers for PEMFC Performance Optimization	PD088; Zhili Feng, ORNL: Vessel Design and Fabrication Technology for Stationary High-Pressure Hydrogen Storage
9:30 AM	ST114; Brian Edgecombe, Materia: Next Generation Hydrogen Storage Vessels Enabled by Carbon Fiber Infusion with a Low Viscosity, High Toughness Resin System	FC105; C.H. Wang, TreadStone Technologies, Inc.: Novel Structured Metal Bipolar Plates for Low Cost Manufacturing	PD025; Brian Somerday, SNL: Hydrogen Embrittlement of Structural Steels
10:00 AM	ST093; Felix Paulauskas, ORNL: Melt Processable PAN Precursor for High Strength, Low-Cost Carbon Fibers	FC083; Genevieve Saur, NREL: Optimal Stationary Fuel Cell Integration and Control	PD022; George Rawls, SRNL: Fiber Reinforced Composite Pipelines
10:30 AM	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
11:00 AM	ST115; Hong Li, PPG: Achieving Hydrogen Storage Goals through High-Strength Fiber Glass	FC017; Rajesh Ahluwalia, ANL: Fuel Cells Systems Analysis	PD021; Don Baldwin, Hexagon Lincoln: Development of High Pressure Hydrogen Storage Tank for Storage and Gaseous Truck Delivery
11:30 AM	ST063; Ragaiy Zidan, SRNL: Reversible Formation of Alane	FC018; Brian James, Strategic Analysis, Inc.: Fuel Cell Vehicle and Bus Cost Analysis	PD101; Jennifer Lalli, Nanosonic: Cryogenically Flexible, Low Permeability H2 Delivery Hose
12:00 PM	ST116; Robert Wilson, Ardica: Low-Cost a-Alane for Hydrogen Storage	FC103; Dale Stretch, Eaton Corp.: Roots Air Management System with Integrated Expander	PD108; Eugene Broerman, SWRI: Hydrogen Compression Application of the Linear Motor Reciprocating Compressor (LMRC)
<b>12:30 PM LUNCH</b>	<b>David Oilett, NETL: Presentation on Contracts &amp; Active Project Management</b> <b>Steve Goguen, DOE: Vehicle Technologies Program Awards Presentations</b>		
1:45 PM	ST104; Shih-Yuan Liu, Boston College: Novel Carbon(C)-Boron(B)-Nitrogen(N)-Containing H2 Storage Materials	FC127; Rod Borup, LANL: Durability Improvements Through Degradation Mechanism Studies	PD109; Zhili Feng, ORNL: Steel Concrete Composite Vessel for 875 bar Stationary Hydrogen Storage
2:15 PM	ST117; John Vajo, HRL: Boron-Based Hydrogen Storage: Ternary Borides and Beyond	FC026; Adam Weber, LBNL: Fuel-Cell Fundamentals at Low and Subzero Temperatures	PD110; Ashok Saxena, Wiretough Cylinders: Low Cost Hydrogen Storage at 875 Bar Using Steel Liner and Steel Wire Wrap
2:45 PM	ST118; Brandon Wood, LLNL: Improving the Kinetics and Thermodynamics of Mg(BH4)2 for Hydrogen Storage	FC048; Huyen Dinh, NREL: Effect of System Contaminants on PEMFC Performance and Durability	PD048; Ludwig Lipp, FuelCell Energy, Inc.: Electrochemical Hydrogen Compressor
3:15 PM	ST103; Jeffrey Long, LBNL: Hydrogen Storage in Metal-Organic Frameworks	FC065; Jean St-Pierre, Hawaii Natural Energy Institute: The Effect of Airborne Contaminants on Fuel Cell Performance and Durability	
3:45 PM	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
4:15 PM	BES001; Vitalij Pecharsky, Ames Laboratory: Complex Hydrides - A New Frontier for Future Energy Applications		
4:45 PM	BES002; Ragaiy Zidan, SRNL: Elucidation of Hydrogen Interaction Mechanisms with Metal-Doped Carbon Nanostructures		
5:15 PM	BES003; Philip Power, UC Davis: Activation of Hydrogen Under Ambient Conditions by Main Group Molecules		



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## Wednesday, June 10 - Oral Presentations

Hotel	Crystal City	Crystal City	Crystal City
Salon	Salon D	Salon E	Salon F
8:30 AM	PM000; Jerry Gibbs, DOE: Overview of VTO Propulsion Material Technologies	ACE075; Sibendu Som, ANL: Advancements in Fuel Spray and Combustion Modeling with High Performance Computing Resources	MT011; Jim Petrecky, Plug Power: Ground Support Equipment Demonstration
9:00 AM	PM004; Glenn Grant, PNNL: Novel Manufacturing Technologies for High Power Induction and Permanent Magnet Electric Motors	ACE010; Christopher Powell, ANL: Fuel Injection and Spray Research Using X-Ray Diagnostics	MT013; Joe Pratt, SNL: Maritime Fuel Cell Generator Project
9:30 AM	PM054; Andrew Wereszczak, ORNL: Enabling Materials for High Temperature Power Electronics	ACE011; Steve Ciatti, ANL: Use of Low Cetane Fuel to Enable Low Temperature Combustion	MT016; Jason Hanlin, Center for Transportation and the Environment: Fuel Cell Hybrid Electric Delivery Van Project
10:00 AM	PM055; Michael Lance, ORNL: Biofuel Impacts on Aftertreatment Devices	ACE054; Scott Goldsborough, ANL: RCM Studies to Enable Gasoline-Relevant Low Temperature Combustion	MT008; Mitch Ewan, Hawaii Natural Energy Institute: Hydrogen Energy Systems as a Grid Management Tool
10:30 AM	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
11:00 AM	PM009; Michael Lance, ORNL: Materials Issues Associated with EGR Systems	ACE084; Thomas Wallner, ANL: High Efficiency GDI Engine Research, with Emphasis on Ignition Systems	
11:30 AM	PM057; Charles Finney, ORNL: Applied Integrated Computational Materials Engineering (ICME) for New Propulsion Materials	ACE015; Jim Szybist, ORNL: Stretch Efficiency for Combustion Engines: Exploiting New Combustion Regimes	
12:00 PM	PM060; Mei Li, Ford: ICME Guided Development of Advanced Cast Aluminum Alloys For Automotive Engine Applications	ACE016; Scott Curran, ORNL: High Efficiency Clean Combustion in Multi-Cylinder Light-Duty Engines	
<b>12:30 PM LUNCH</b>	<b>David Ollett, NETL: Presentation on Contracts &amp; Active Project Management</b> <b>Steve Goguen, DOE: Vehicle Technologies Program Awards Presentations</b>		
1:45 PM	PM059; Rich Huff, Caterpillar: Development of Advanced High Strength Cast Alloys for Heavy Duty Engines	ACE017; Kevin Edwards, ORNL: Accelerating Predictive Simulation of IC Engines with High Performance Computing	TV019; Daniel Terlip, NREL: Hydrogen Component Validation
2:15 PM	PM061; Mike Walker, General Motors: Computational Design and Development of a New, Lightweight Cast Alloy for Advanced Cylinder Heads in High-Efficiency, Light-Duty Engines	ACE090; Brian Kaul, ORNL: High-Dilution Stoichiometric Gasoline Direct-Injection (SGDI) Combustion Control Development	TV029; Salvador Aceves, LLNL: Performance and Durability Testing of Volumetrically Efficient Cryogenic Vessels and High Pressure Liquid Hydrogen Pump
2:45 PM	PM065; Rich Huff, Caterpillar: Development of High-Performance Cast Crankshafts	ACE077; Bill Partridge, ORNL: Cummins-ORNL/FEERC Combustion CRADA: Characterization & Reduction of Combustion Variations	TV030; Kevin Harrison, NREL: FCTO INTEGRATE Stack Test Bed & Grid Interoperability
3:15 PM	PM062; Amit Shyam, ORNL: High Performance Cast Aluminum Alloys for Next Generation Passenger Vehicle Engines	ACE052; Todd Toops, ORNL: Neutron Imaging of Advanced Transportation Technologies	TV001; Jennifer Kurtz, NREL: Fuel Cell Electric Vehicle Evaluation
3:45 PM	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
4:15 PM	PM053; G. Muralidharan, ORNL: High Temperature Materials for High Efficiency Engines	ACE022; Josh Pihl, ORNL: Joint Development and Coordination of Emissions Control Data and Models (CLEERS Analysis and Coordination)	TV008; Leslie Eudy, NREL: Fuel Cell Bus Evaluations
4:45 PM	PM048; Glenn Grant, PNNL: Tailored Materials for Improved Internal Combustion Engine Efficiency	ACE023; Yong Wang, PNNL: CLEERS: Aftertreatment Modeling and Analysis	TV021; Chris Ainscough, NREL: Material Handling Equipment Data Collection and Analysis
5:15 PM	PM044; Nicole Overman, PNNL: Rapidly Solidified High Temperature Aluminum Alloys	ACE078; Janos Szanyi, PNNL: Investigation of Mixed Oxide Catalysts for NO Oxidation	



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## Wednesday, June 10 - Poster Presentations

### Crystal Gateway Hotel - Grand Ballroom, 6:30-8:30 PM

<b>Electrochemical Storage</b>
ES242; Farshid Roumi, Parthian Energy: A Disruptive Concept for a Whole Family of New Battery Systems
ES243; John Arnold, Miltec UV International: Dramatically Improve the Safety Performance of Li Ion Battery Separators and Reduce the Manufacturing Cost using Ultraviolet Curing and High Precision Coating Technologies
ES244; Alex Jacobs, Sila Nanotechnologies: Low Cost, High Capacity Non-Intercalation Chemistry Automotive Cells
ES245; Taison Tan, 24M Technologies: Low Cost, Structurally Advanced Novel Electrode and Cell Manufacturing
ES246; Iftikhar Ahmad, Lambda Technologies: Advanced Drying Process for Lower Manufacturing Cost of Electrodes
ES247; Herman Lopez, Envia Systems: High Energy Lithium Batteries for Electric Vehicles
ES248; John Busbee, Xerion Advanced Battery Corporation: Development of a PHEV Battery
ES249; Mohamed Alamgir, LG Chem Power: A 12V Start-Stop Li Polymer Battery Pack
ES250; Ionel Stefan, Amprius: A Commercially Scalable Process for Silicon Anode Prelithiation
ES251; Michael Everett, Maxwell: Development of Advanced High-Performance Batteries for 12V Start Stop Vehicle Applications
ES030; Andrew Jansen, ANL : Cell Analysis, Modeling, and Prototyping (CAMP) Facility Research Activities
ES028; Wenquan Lu, ANL: Materials Benchmarking Activities For CAMP Facility
ES036; Chris Orendorff, SNL: Abuse Tolerance Improvements
ES166; Ira Bloom, ANL: Post-Test Analysis of Lithium-Ion Battery Materials at Argonne National Laboratory
ES167; Greg Krumdick, ANL: Process Development and Scale up of Advanced Active Battery Materials
ES168; Krzysztof Pupek, ANL: Process R&D and Scale up of Critical Battery Materials
ES165; Debasish Mohanty, ORNL: Electrode Coating Defect Analysis and Processing NDE for High-Energy Lithium-Ion Batteries
ES164; Jianlim Li, ORNL: Thick Low-Cost, High-Power Lithium-Ion Electrodes via Aqueous Processing
ES207; David Wood, ORNL: IR Thermography as a Non-Destructive Evaluation (NDE) Tool for Lithium-Ion Battery Manufacturing
ES162; Robert Tenent, NREL: Development of Industrially Viable Battery Electrode Coatings
ES252; Anthony Burrell, ANL: Enabling High-Energy/Voltage Lithium-Ion Cells for Transportation Applications: Part 1 Baseline Protocols and Analysis
ES253; Anthony Burrell, ANL: Enabling High-Energy/Voltage Lithium-Ion Cells for Transportation Applications: Part 2 Materials
ES254; Anthony Burrell, ANL: Enabling High-Energy/Voltage Lithium-Ion Cells for Transportation Applications: Part 3 Electrochemistry
ES208; Khalil Amine, ANL: New High-Energy Electrochemical Couple for Automotive Applications
ES255; Xiao-Qing Yang, BNL : New High Energy Electrochemical Couple for Automotive Application:
ES210; Jagat Singh, 3M: ANL IC3P Research Focus on Diagnostic Studies at BNL
ES256; Kevin Eberman, 3M: Si Alloy Anode: Sudden Fade Challenge
ES213; Michael Slater, Farasis: High Energy Density Li-ion Cells for EV's Based on Novel, High Voltage Cathode Material Systems
ES257; Christopher Johnson, ANL: Ion-Exchanged Derived Cathodes (IE-LL NCM) for High Energy Density LIBs
ES211; Subramanian Venkatachala, Envia: High Energy Lithium Batteries for PHEV Applications
ES258; Robert Kostecki, LBNL: Origins of the DC-Resistance Increase in HCMRTM Cathodes
ES212; Donghai Wang, Penn State: High Energy, Long Cycle Life Lithium-ion Batteries for EV Applications
ES259; Arumugam Manthiram, U of Texas at Austin : Prospects and Challenges of Nickel-rich Layered Oxide Cathodes
ES209; Jane Rempel, TIAX: High Energy High Power Battery Exceeding PHEV-40 Requirements
ES260; Jane Rempel, TIAX: Materials Development for High Energy High Power Battery Exceeding PHEV-40 Requirements
<b>Hydrogen Storage</b>
ST014; Phil Parilla, NREL: Hydrogen Sorbent Measurement Qualification and Characterization
ST047; Norman Newhouse, Hexagon Lincoln: Development of Improved Composite Pressure Vessels for Hydrogen Storage
ST007; Troy Semelsberger, LANL: Chemical Hydrogen Rate Modeling, Validation, and System Demonstration
ST009; Mei Cai, General Motors: Testing, Modeling, and Evaluation of Innovative Hydrogen Storage System Designs
ST067; Terry Udovic, NIST: Neutron Characterization in Support of the DOE Hydrogen Storage Sub-Program
ST110; Andrea Haight, Composite Technology Development: Optimizing the Cost and Performance of Composite Cylinders for H2 Storage using a Graded Construction
ST119; Vitalij Pecharsky, Ames Laboratory: High-capacity Hydrogen Storage Systems via Mechanochemistry
ST120; Brent Fultz, California Institute of Technology: Design and Synthesis of Materials with High Capacities for Hydrogen Physisorption
ST121; Hong-Cai (Joe) Zhou, Texas A&M University: High-Capacity and Low-Cost Hydrogen-Storage Sorbents for Automotive Applications
ST122; Don Siegel, University of Michigan: Hydrogen Adsorbents with High Volumetric Density: New Materials and System Projections
ST095; Craig Jensen, U of Hawaii: Hawaii Hydrogen Carriers: Low Cost Metal Hydride Hydrogen Storage System for Forklift Applications (SBIR Phase II)
ST126; Erik Bigelow, Center for Transportation and the Environment: Conformable Hydrogen Storage Coil Reservoir
BES004; Ragaiy Zidan, SRNL: Elucidation of Hydride Interaction Mechanisms with Carbon Nanostructures and the Formation of Novel Nanocomposites

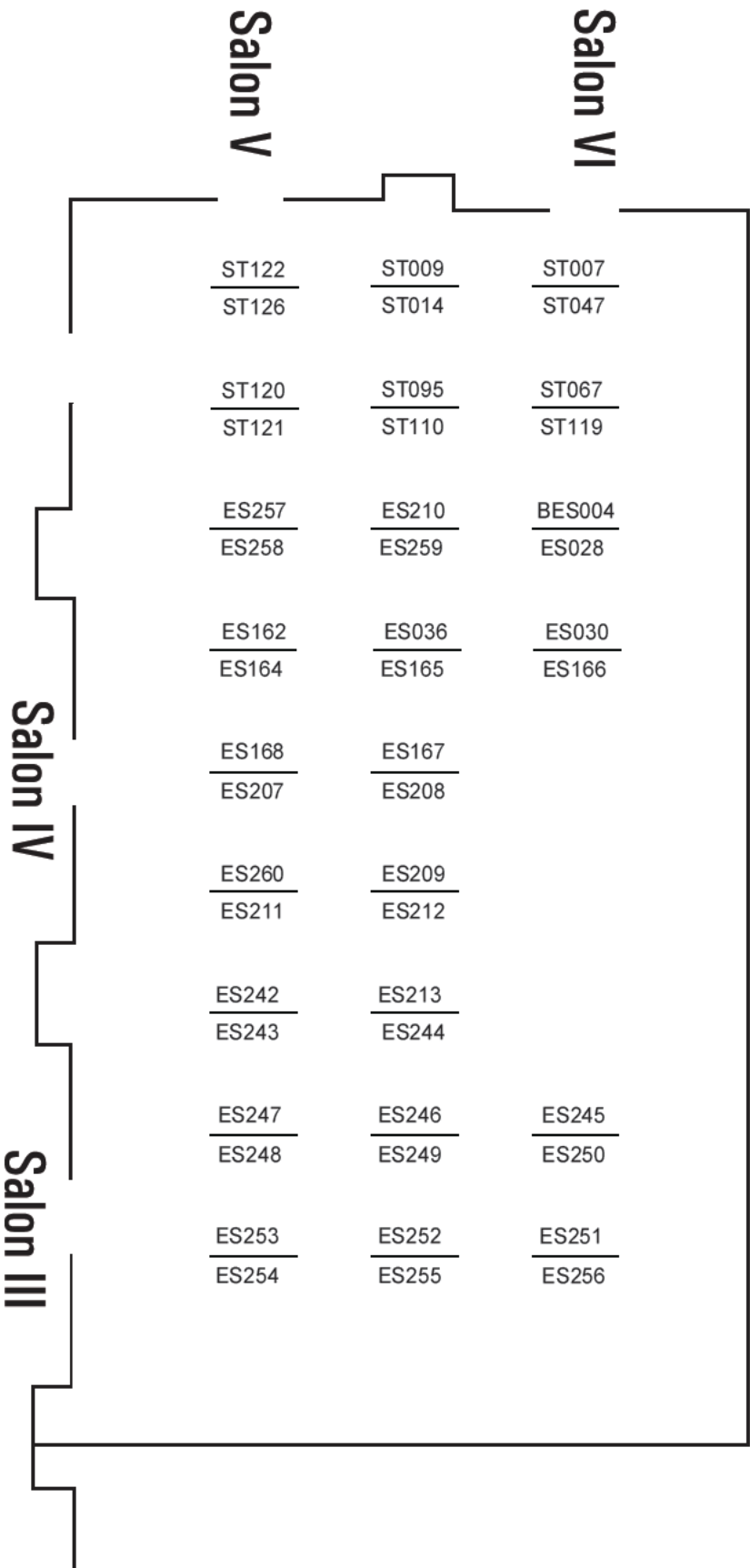


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# ARLINGTON BALLROOM



## POSTER MAP

Wednesday, June 10

Crystal Gateway Marriott

2015 DOE ANNUAL MERIT REVIEW AND PEER EVALUATION MEETING



## Thursday, June 11 - Oral Presentations

Hotel	Crystal Gateway	Crystal Gateway	Crystal Gateway
Salon	Salon A	Salons I&II	Salon C
8:00 AM	LM006; Felix Paulauskas, ORNL: Advanced Oxidation & Stabilization of PAN-Based Carbon Precursor Fibers		VSS163; Justin Martin, PPG: Advanced Bus and Truck Radial Materials for Fuel Efficiency
8:30 AM	LM084; Omar Faruque, Ford: Validation of Material Models for Crash Simulation of Automotive Carbon Fiber Composite Structures (VMM)	ES234; Venkat Srinivasan, LBNL: Continuum Modeling as a Guide to Developing New Battery Materials	VSS006; Kambiz Salari, LLNL: DOE's Effort to Improve Heavy Vehicle Fuel Efficiency through Improved Aerodynamics
9:00 AM	LM081; Uday Vaidya, Univ Alabama Birmingham: GATE Center of Excellence at UAB for Lightweight Materials and Manufacturing for Automotive, Truck and Mass Transit	ES091; Kristin Persson, LBNL: Predicting and Understanding Novel Electrode Materials From First-Principles	VSS116; Nicholas Williams, Houston-Galveston Area Council: Zero Emission Cargo Transport Projects
9:30 AM	LM072; Tim Skszek, VEHEMA: Multi-Material Lightweight Vehicles	ES054; Gerbrand Ceder, Massachusetts Institute of Technology: First Principles Calculations of Existing and Novel Electrode Material	VSS115; Brian Choe, SCAQMD: Zero-Emission Heavy-Duty Drayage Truck Demonstration
10:00 AM	LM090; Tony Mascarin, IBIS Associates: Technical Cost Modeling for Vehicle Lightweighting	ES214; Perla Balbuena, Texas A&M: First Principles Modeling of SEI Formation on Bare and Surface/Additive Modified Silicon Anodes	VSS158; Joseph Impullitti, SCAQMD: Zero Emission Cargo Transport II
10:30 AM	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
11:00 AM	LM035; Steve Derezinski, INFINIUM, Inc.: Scale-Up of Magnesium Production by Fully Stabilized Zirconia Electrolysis	ES221; Xingcheng Xiao, GM: A Combined Experimental and Modeling Approach for the Design of High Coulombic Efficiency Si Electrodes	ARRAVT083; Matt Myasato, SCAQMD: Plug-In Hybrid Medium-Duty Truck Demonstration and Evaluation Program
11:30 AM	LM077; Jim Quinn, USAMP: Magnesium-Intensive Front End Sub-Structure Development	ES220; Dean Wheeler, BYU: Predicting Microstructure and Performance for Optimal Cell Fabrication	VSS159; Bob Prohaska, NREL: Medium Duty ARRA Data Reporting and Analysis
12:00 PM	LM091; John Allison, U of Michigan: Phase Transformation Kinetics and Alloy Microsegregation in High Pressure Die Cast Magnesium Alloys	ES225; Guoying Chen, LBNL: Design and Synthesis of Advanced High-Energy Cathode Materials	VSS160; Adam Duran, NREL: Fleet DNA Phase 1 Refinement & Phase 2 Implementation
<b>12:30 PM LUNCH</b>	<b>2014 AMR Brainstorming Session Summary followed by 2015 AMR Brainstorming Session</b>		
1:45 PM	LM092; Aashish Rohatgi, PNNL: In-Situ Investigation of Microstructural Evolution During Solidification and Heat Treatment in a Die-Cast Magnesium Alloy	ES235; Jason Croy, ANL: User Facilities for Energy Storage Materials Research	VSS161; Bulent Chavdar, Eaton: Multi-Speed Transmission for Commercial Delivery Medium Duty Plug-In Electric Drive Vehicles
2:15 PM	LM093; Alan Lou, Ohio State University: High-Throughput Study of Diffusion and Phase Transformation Kinetics of Magnesium-Based Systems For Automotive Cast Magnesium Alloys	ES059; Xiao-Qing Yang, BNL: Advanced In-Situ Diagnostic Techniques for Battery Materials	VSS064; Russ Zukouski, Navistar: SuperTruck – Development and Demonstration of a Fuel-Efficient Class 8 Tractor & Trailer, Vehicle
2:45 PM	LM076; Donovan Leonard, ORNL: Understanding Protective Film Formation by Magnesium Alloys in Automotive Applications	ES085; Robert Kostecki, LBNL: Interfacial Processes in EES Systems Advanced Diagnostics	VSS081; Pascal Amar, Volvo Trucks: Volvo SuperTruck
3:15 PM	LM094; Karl Sieradzki, Arizona State University: Microstructure and the Corrosion/Protection of Cast Magnesium Alloys	ES055; Clare Grey, U. of Cambridge: NMR and Pulse Field Gradient Studies of SEI and Electrode Structure	ARRAVT080; Derek Rotz, DTNA: Class 8 Truck Freight Efficiency Improvement Project
3:45 PM	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
4:15 PM	LM095; Mark Horstemeyer, Mississippi State University: A Systematic Multiscale Modeling and Experimental Approach to Understand Corrosion at Grain Boundaries in Magnesium Alloys	ES216; Shirley Meng, UC San Diego: Optimization of Ion Transport in High-Energy Composite Cathodes	VSS133; Dean Deter, ORNL: Cummins MD & HD Accessory Hybridization CRADA
4:45 PM	LM096; Guang-Ling Song, ORNL: Corrosivity and Passivity of Metastable Mg Alloys	ES215; G. Somorjai, UC Berkeley: Analysis of Film Formation Chemistry on Silicon Anodes by Advanced In Situ and Operando Vibrational Spectroscopy	VSS162; Vasilios Tsourapas, Eaton: Integrated Boosting and Hybridization for Extreme Fuel Economy and Downsizing
5:15 PM	LM057; Xin Sun, PNNL: Mechanistic-Based Ductility Prediction for Complex Mg Castings	ES226; Chongmin Wang, PNNL: Microscopy Investigation on the Fading Mechanism of Electrode Materials	VSS141; David Smith, ORNL: Powertrain Controls Optimization for Heavy Duty Line Haul Trucks



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## Thursday, June 11 - Oral Presentations

Hotel	Crystal Gateway	Crystal Gateway	Crystal Gateway
Salon	Salon H	Salons J&K	Salon B
8:00 AM	VAN999; Jake Ward, DOE: Overview of VTO Analysis Program		
8:30 AM	VAN003; Mark Singer, NREL: Consumer Vehicle Technology Data	FC020; Karren More, ORNL: Characterization of Fuel Cell Materials	
9:00 AM	VAN004; Aaron Brooker, NREL: Unified Modeling, Simulation, and Market Implications: FASTSim and ADOPT	FC021; David Jacobson, NIST: Neutron Imaging Study of the Water Transport in Operating Fuel Cells	PD102; Brian James, Strategic Analysis, Inc.: Analysis of Advanced H2 Production Pathways
9:30 AM	VAN002; Michael Wang, ANL: Emissions Modeling: GREET Life Cycle Analysis	FC097; Vincent Contini, Battelle: Stationary and Emerging Market Fuel Cell System Cost Analysis--Primary Power and Combined Heat and Power Applications	PD111; Wei Liu, PNNL: Monolithic Piston-Type Reactor for Hydrogen Production through Rapid Swing of Reforming/Combustion Reactions
10:00 AM	VAN005; Zhenhong Lin, ORNL: MA3T—Modeling Vehicle Market Dynamics with Consumer Segmentation	FC098; Max Wei, LBNL: A Total Cost of Ownership Model for Design and Manufacturing Optimization of Fuel Cells in Stationary and Emerging Market Applications	PD112; Fred Jahnke, FuelCell Energy, Inc.: Reformer-Electrolyzer-Purifier (REP) for Production of Hydrogen
10:30 AM	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
11:00 AM	VAN014; Dawn Manley, SNL: ParaChoice: Parametric Vehicle Choice Modeling	FC115; Bryan Blackburn, Redox Fuel Cells, Inc.: Affordable, High Performance, Intermediate Temperature Solid Oxide Fuel Cells	PD113; Tony McDaniel, SNL: High Efficiency Solar Thermochemical Reactor for Hydrogen Production
11:30 AM	VAN001; Tom Stephens, ANL: Impact Analysis: VTO Baseline and Scenario (BaSce) Activities	FC116; Chao-yi Yuh, FuelCell Energy, Inc.: Smart Matrix Development for Direct Carbonate Fuel Cell	PD114; Al Weimer, U of Colorado: Flowing Particle Bed Solarthermal RedOx Process to Split Water
12:00 PM	VAN015; Mike Nicholas, UCD: PEV Consumer Behavior in Practice	FC108; Bryan Pivovar, NREL: Advanced Ionomers & MEAs for Alkaline Membrane Fuel Cells	PD096; Hector Colon-Mercado, SRNL: Electrolyzer Component Development for the Hys Thermochemical Cycle
<b>12:30 PM LUNCH</b>	<b>2014 AMR Brainstorming Session Summary followed by 2015 AMR Brainstorming Session</b>		
1:45 PM		MN001; Michael Ulsh, NREL: Fuel Cell MEA Manufacturing R&D	PD115; Todd Deutsch, NREL: High-Efficiency Tandem Absorbers for Economical Solar Hydrogen Production
2:15 PM		MN012; Pat Valente, Ohio Fuel Cell Coalition: Clean Energy Supply Chain and Manufacturing Competitiveness Analysis for Hydrogen and Fuel Cell Technologies	PD116; Nicolas Gaillard, U of Hawaii: Wide Bandgap Chalcopyrite Photoelectrodes for Direct Solar Water Splitting
2:45 PM		MN013; Alleyn Harned, Virginia Clean Cities at James Madison University: Fuel Cell and Hydrogen Opportunity Center	PD038; Pin-Ching Maness, NREL: Fermentation and Electrohydrogenic Approaches to Hydrogen Production
3:15 PM		MN014; Patrick Fullenkamp, GLWN – Westside Industrial Retention & Expansion Network: U.S. Clean Energy Hydrogen and Fuel Cell Technologies: A Competiveness Analysis	PD031; Mike Peters, NREL: Renewable Electrolysis Integrated System Development and Testing
3:45 PM	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
4:15 PM			PD103; Hui Xu, Giner Electrochemical Systems: High-Performance, Long-Lifetime Catalysts for Proton Exchange Membrane Electrolysis
4:45 PM			PD098; Katherine Ayers, Proton OnSite: Low-Noble-Metal-Content Catalysts/Electrodes for Hydrogen Production by Water Electrolysis
5:15 PM			PD117; Cortney Mittelsteadt, Giner Electrochemical Systems, LLC: High Temperature, High Pressure Electrolysis



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## Thursday, June 11 - Oral Presentations

Hotel	Crystal City	Crystal City	Crystal City
Salon	Salon D	Salon E	Salon F
8:30 AM	FT999; Kevin Stork, DOE: Overview of the VTO Fuel and Lubricant Technologies R&D	ACE026; Feng Gao, PNNL: Enhanced High and Low Temperature Performance of NOx Reduction Materials	SCS024; Danny Terlip, NREL: Hydrogen Contaminant Detector
9:00 AM	FT008; James Szybist, ORNL: Gasoline-Like Fuel Effects on Advanced Combustion Regimes	ACE027; Abhijeet Karkamkar, PNNL: Next Generation SCR-Dosing System Investigation	TV026; Terry Johnson, SNL: Development of the Hydrogen Station Equipment Performance (HyStEP) Device
9:30 AM	FT023; Arup Gangopadhyay, Ford: Polyalkylene Glycol (PAG) Based Lubricant for Light & Medium Duty Axles	ACE056; Mark Stewart, PNNL: Fuel-Neutral Studies of Particulate Matter Transport Emissions	PD106; Joe Pratt, SNL: Reference Station Design
10:00 AM	FT002; Brad Zigler, NREL: Advanced Combustion and Fuels	ACE033; Jim Parks, ORNL: Emissions Control for Lean Gasoline Engines	SCS025; Chris LaFleur, SNL: Enabling Hydrogen Infrastructure Through Science-based Codes and Standards
10:30 AM	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
11:00 AM	FT024; Q. Jane Wang, Northwestern University: A Novel Lubricant Formulation Scheme for 2% Fuel Efficiency Improvement	ACE085; Jim Parks, ORNL: Low Temperature Emission Control to Enable Fuel-Efficient Engine Commercialization	PD107; Amgad Elgowainy, ANL: Hydrogen Fueling Station Pre-Cooling Analysis
11:30 AM	FT004; Chuck Mueller, SNL: Fuel Effects on Mixing-Controlled Combustion Strategies for High-Efficiency Clean-Combustion Engines	ACE032; Bill Partridge, ORNL: Cummins-ORNL/FEERC Emissions CRADA: NOx Control & Measurement Technology for Heavy-Duty Diesel Engines, Self-Diagnosing SmartCatalyst Systems	SA045; Amgad Elgowainy, ANL: Analysis of Incremental Fueling Pressure Cost
12:00 PM	FT003; Matt Ratcliff, NREL: Performance of Biofuels and Biofuel Blends	ACE024; Hee Je Seong, ANL: Particulate Emissions Control by Advanced Filtration Systems for GDI Engines	SA033; Zhenhong Lin, ORNL: Analysis of Optimal On-Board Storage Pressure for Hydrogen Fuel Cell Vehicles
<b>12:30 PM LUNCH</b>	<b>2014 AMR Brainstorming Session Summary followed by 2015 AMR Brainstorming Session</b>		
1:45 PM	FT025; Gefei Wu, Ashland: Improve Fuel Economy through Formulation Design and Modeling	ACE079; Rangachary Mukundan, LANL: Robust Nitrogen Oxide/Ammonia Sensors for Vehicle On-board Emissions Control	SA051; Marc Melaina, NREL: Infrastructure Investment and Finance Scenario Analysis
2:15 PM	FT006; Magnus Sjoberg, SNL: Advanced Lean Burn DI Spark Ignition Fuels Research	ACE091; Claus Schnabel, Robert Bosch: Intake Air Oxygen Sensor	SA052; Robert Rosner, U of Chicago: The Business Case for Hydrogen-powered Passenger Cars: Competition and Solving the Infrastructure Puzzle
2:45 PM	FT007; Todd Toops, ORNL: Fuel and Lubricant Effects on Emissions Control Technologies	ACE089; Alexander Sappok, Filter Sensing Technologies, Inc.: Development of Radio Frequency Diesel Particulate Filter Sensor and Controls for Advanced Low-Pressure Drop Systems to Reduce Engine Fuel Consumption	SA053; Ian Thompson, Kalibrate: Retail Marketing Analysis: Hydrogen Refueling Stations
3:15 PM	FT026; Bill Pitz, LLNL: Developing Kinetic Mechanisms for New Fuels and Biofuels, Including CFD Modeling	ACE095; Pu-Xian Gao, U. Conn: Metal Oxide Nano-Array Catalysts for Low Temperature Diesel Oxidation	TV027; Ben Xiong, CaFCP : Station Operational Status System (SOSS) 3.0 Upgrade
3:45 PM	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
4:15 PM	FT027; Tim Bays, PNNL: Unconventional Hydrocarbon Fuels	ACE094; Keith Confer, Delphi Powertrain: Ultra Efficient Light Duty Powertrain with Gasoline Low Temperature Combustion	TV020; Larry Moulthrop, Proton OnSite: Validation of an Advanced High Pressure PEM Electrolyzer and Composite Hydrogen Storage, with Data Reporting, for SunHydro Stations
4:45 PM	FT012; George Fenske, ANL: Engine Friction Reduction Technologies	ACE065; Corey Weaver, Ford Motor Company: Advanced Gasoline Turbocharged Direct Injection (GTDI) Engine Development	TV025; Ted Barnes, GTI: Performance Evaluation of Delivered Hydrogen Fueling Stations
5:15 PM	FT029; Oyelayo Ajayi, ANL: Engine Friction Reduction – Part II (Base fluid and additive technologies)	ACE093; David Sczomak, General Motors: Lean Miller Cycle System Development for Light-Duty Vehicles	TV017; Sam Sprick, NREL: Hydrogen Station Data Collection and Analysis



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## Thursday, June 11 - Poster Presentations

### Crystal Gateway Hotel, 6:30-8:30 PM

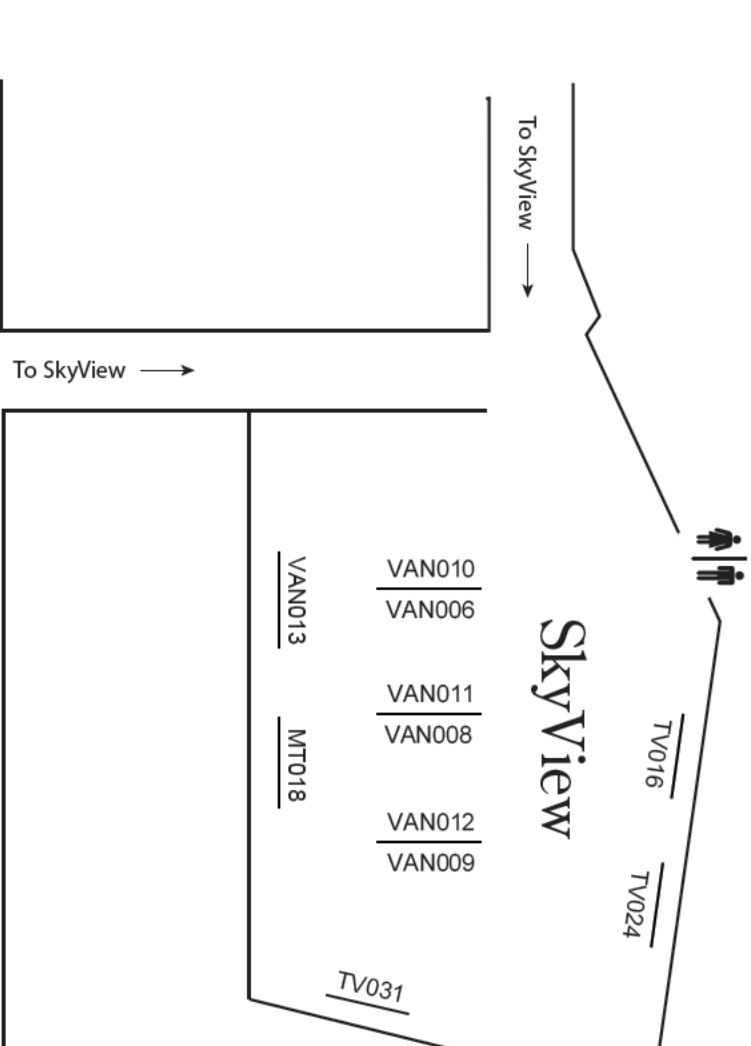
<b>Vehicle Technologies Analysis</b>
VAN009; Stacy Davis, ORNL: Transportation Energy Data Book, Vehicle Technologies Market Report, and VT Fact of the Week
VAN011; Joann Zhou, ANL: E-drive Vehicle Sales Analyses
VAN008; Neeraj Shidore, ANL: Evaluation of VTO Benefits (BaSce)
VAN012; Alicia Birky, Energetics: Modeling for Light and Heavy Vehicle Market Analysis
VAN006; Joann Zhou, ANL: Development and Update of Long-Term Energy and GHG Emission Macroeconomic Accounting Tool
VAN010; Changzheng Liu, ORNL: Assessing the Outlook of US Oil Dependence Using Oil Security Metrics Model (OSMM)
VAN013; Changzheng Liu, ORNL: Transportation Energy Transition Modeling and Analysis: the LAVE-Trans Model
<b>Technology Validation</b>
TV024; David Blekhman, CSULA: CSULA Hydrogen Refueling Facility Performance Evaluation and Optimization
TV016; Genevieve Saur, NREL: Stationary Fuel Cell Evaluation
TV031; Robert Hovsopian, INL: Dynamic Modeling and Validation of Electrolyzers in Real Time Grid Simulation
<b>Market Transformation</b>
MT018; Abas Goodarzi, US Hybrid: Demonstration and Deployment of a Fuel Cell-Electric Refuse Truck for Waste Transportation



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**POSTER MAP**  
**Thursday, June 11**

**Crystal Gateway Marriott**

**2015 DOE ANNUAL MERIT REVIEW AND PEER EVALUATION MEETING**

## Friday, June 12 - Oral Presentations

Hotel	Gateway	Crystal City
Salon	Salons G&F	Salon E
8:00 AM	LM097; Adrian Sabau, ORNL: Laser-Assisted Joining Process of Aluminum and Carbon Fiber Components	
8:30 AM	LM086; Glenn Daehn, Ohio State University: Collision Welding of Dissimilar Materials by Vaporizing Foil Actuator	ACE061; Michael Ruth, Cummins: ATP-LD; Cummins Next Generation Tier 2 Bin 2 Diesel Engine
9:00 AM	LM098; Tim Weihs, John Hopkins University: Brazing Dissimilar Metals with a Novel Composite Foil	ACE087; Mike Bunce, MAHLE Powertrain LLC: Next-generation Ultra-Lean Burn Powertrain
9:30 AM	LM074; Elizabeth Stephens, PNNL: SPR Process Simulation, Analyses, and Development for Magnesium Joints	ACE092; Charles Mendler, Envera LLC: High Efficiency VCR Engine with Variable Valve Actuation and New Supercharging Technology
10:00 AM	LM099; Yuri Hovanski, PNNL: High Strength, Dissimilar Alloy Aluminum Tailor-Welded Blanks	ACE057; David Koeberlein, Cummins: Cummins SuperTruck Program Technology and System Level Demonstration of Highly Efficient and Clean, Diesel Powered Class 8 Trucks
10:30 AM	<b>BREAK</b>	<b>BREAK</b>
11:00 AM	LM087; Mahmood Haq, Michigan State University: Active, Tailorable Adhesives for Dissimilar Material Bonding, Repair and Assembly	ACE058; Sandeep Singh, Detroit Diesel: SuperTruck Program: Engine Project Review
11:30 AM	LM100; Steve Logan, Fiat Chrysler Automobiles US LLC: Upset Protrusion Joining Techniques For Joining Dissimilar Metals	ACE060; John Gible, Volvo: Volvo SuperTruck - Powertrain Technologies for Efficiency Improvement
12:00 PM		ACE059; Russ Zukouski, Navistar International Corp.: SuperTruck – Development and Demonstration of a Fuel-Efficient Class 8 Tractor & Trailer, Engine Systems



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