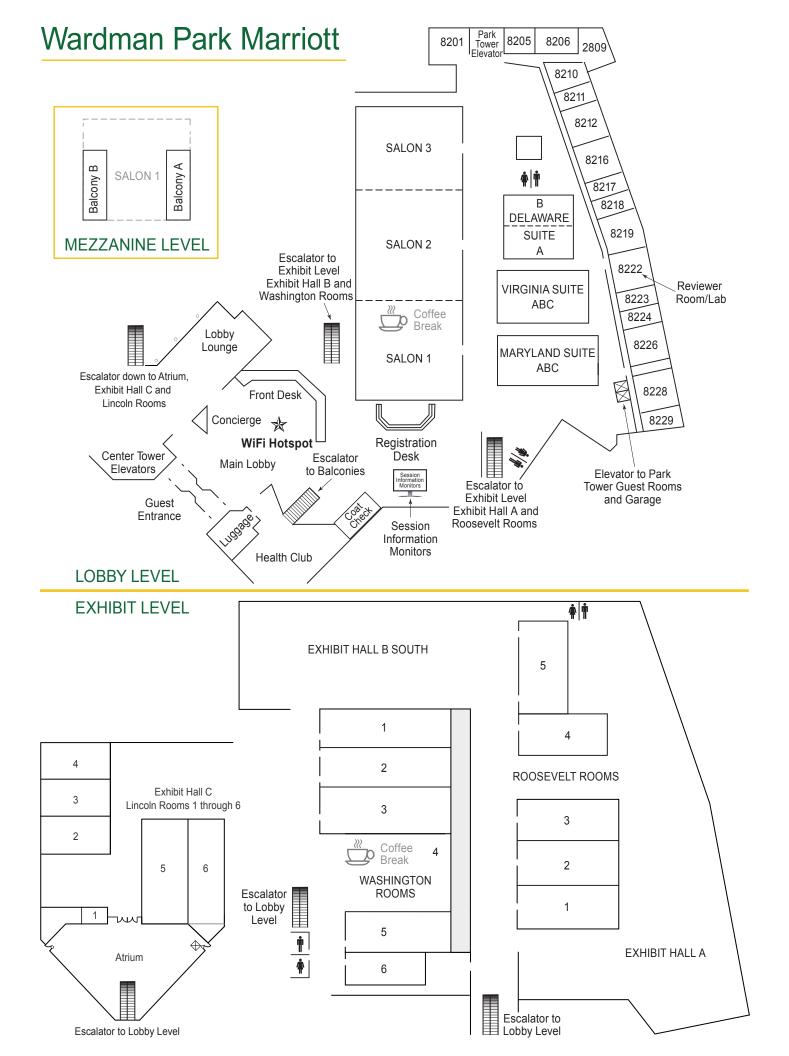
										<u> </u>								TIN on Ma			nan Pa												
11:00	Revie	wer C	rient	ation	(Dela	ware	B) No	te: R	eviewer	l ab in	Park	Towe	r 8222	· Hoi	ırs: M	on 3-	6pm·	Tue-Th	r 7:30a	m to	8:00pr	n· Fri	7:30 1	o noo	n								
Noon	Lunch					ware	<i>D</i> , 140		CVICTO	Lub III	· uik		0222	., 1100		011 0	ории,	140-11	7.000		о.оорі	,	7.00	.0 1100	,,,,								
				Gue	st Sp	eakeı	rs and	Ove	rviews o	of the F	lydro	gen a	nd Fue	el Cell	ls Pro	gram	and \	/ehicle	Techn	olog	ies Offi	ice (S	alons	2 and	3)								
2:45	Break				4i ma .	Danas	arab C		ew and	Over	viou	f Cali	fornia	Lludro	gon E	ual Ca	all Voh	violo															
3:15									ew and or, CERO																								
	CVC				., 0, .		og, 2	000	,, 02.10	Partr	nershi	& Ca	alifornia	a Air F	Resou	rces B																	
3:30	Advar						D Ove	rview	/*				Deliver	,		*																	
:00	Vehicl Electro						Vontic	NA/*		_		Storaç Overv	ge Ove	rview'	**				* Salon	2; *	Salon	3											
	Fuel 8												&D Ov	erviev	N**																		
:45	Revie	wer C	rient	ation	(Dela	ware	B) No	te: R	eviewer	Lab in	Park	Towe	r 8222	2; Ηοι	ırs: M																		
:00	Poste	r Ses	sion I	: Veh	icle a	nd Sy	stems	Simu	ılation ar	nd Tech	nolog	y Inte	gration	(Exhi	ibit Ha	II A); I	Electro	ochemi	cal Stor	age a	and Bas	sic En						Storage (Exhib	it Hall	B)		
																							Sche	dule	as of:	8-	Jul-14						
				Tues	day J	une 1	7		_		1		Vedne	sday	June	18						Thur	sday J	une 1	9	1				Frida	y Jun	e 20	
	⋖	13	Maryland ABC	В	n 1	n 3	7	n 5	ည္က	⋖	3	ABC	В	n 1	n 3	7	n 5	30	<	3	ABC	В	7	n 3		n 5	ABC		٧	В	٦ 1		n 3
ssion	Delaware	Roosevelt 3	δ br	Delaware	Washington 1	Washington 3	Roosevelt 1	Washington 5	Virginia ABC	Delaware A	Roosevelt 3	δ	Delaware	Washington '	Washington	Roosevelt 1	Washington 5	Virginia ABC	Delaware A	Roosevelt 3	₽ p	Delaware B	Washington 1	Washington 3	Roosevelt 1	Washington 5	a AE		Delaware	Delaware	Washington		Washington
ooms	av	ose	ylar	<u>8</u>	shir	shir	ose	Shir	gii	a S	ose	ylar	ala v	shir	shir	ose	shir	gini	<u>a</u>	ose	ylar	a S	shir	shir	ose	Shir	Virginia		a N	<u>a</u>	Shir		shir
	De	8	Mar	De	Was	Was	S ₂	۸a	Kir	De	8	Maryland	ă	Wa	Was	S.	Wa	Virg	۵	8	Maryland	De	Was	Was	8	Was	, Si		Ď	۵	Na.		Wa
5 AM	l l	C		ntal			Salon	1)	1	Co	ntiner		reakfa		lon 1,	Was	hingto	on 4)	Co	ntine	ental B	reakfa		lon 1	Was	hingto	on 4)	Cont	inent	al Brk	f. (Sal	lon 1, \	Wasl
5 AM 0 AM	Materia	ale ¹			Syste	ms An	alveie ²	_		ACE	APE	ES	LM	VSS	SCS	PD	ST	FC	ACE	F	ES Γ ES	LM	VSS	TI	PD		FC		ACE	PM	VSS		TI
	Adv. P		lectror	nics ¹			es & S	tan.2		ACE				VSS	SCS		ST	FC	ACE	_	_		VSS	TI	PD		FC		ACE	PM	VSS		TI
0 AM	VT Ana	alysis ¹					Valida			ACE					SCS		ST	FC	ACE	_			VSS	_	PD	VSS	FC		ACE	PM	VSS		TI
MA 00	Techno						sforma			ACE			LM	VSS	SCS	PD	ST	FC	ACE	F		LM	1 and	TI	PD	VSS	FC		ACE	PM		ad 10/22	TI
30 AM 00 AM	ACE						ington PD	ST	FC	ACE			Salon	VSS			ST	FC	ACE	F	Break (PD	VSS	FC		ACE	PM	on 1 an	nd Wasl	ningt
30 AM		APE		LM	VSS			ST		ACE			LM	VSS	SCS		ST	FC	ACE	_		ACE		TI	PD	VSS	FC		ACE	PM			TI
M9 00	ACE	APE					PD	ST	FC	ACE	APE				SCS		ST	FC	ACE	F			VSS		PD	VSS	FC		ACE				TI
30 PM	1.00	DM -				s 2 an	nd 3) droge	n and	l Euol	1.0	DM.		nch (S				hnolo	aine			Lu	nch (Salon	s 2 an	d 3)								
							esenta			1.0	J F IVI		Awa					gies															
5 PM	ACE	APE	ES	LM	VSS		PD	ST		ACE	VAN		LM	VSS			ST	FC	ACE	F	H2 IN	I PM	VSS	TI	BES	MT	TV		ACE:	Adv. 0	ombu	stion E	ngine
5 PM		APE	ES		VSS	AN	PD	ST	FC	ACE					SCS	BES	ST	FC	ACE				VSS	TI	BES	MT	TV					ower El	
5 PM		APE	ES	LM	VSS			ST		ACE			LM	VSS				FC	ACE	_			VSS	TI	BES BES		TV	O C				al Stora	_
5 PM 5 PM	ACE	APE B			VSS 1 and		ington	ST 4)	FC	ACE			LM Salon					FC	ACE	F	H2 IN Break (IV					ant Tecl Materia	
5 PM	ACE	APE	ES	LM	VSS	AN	PD	ST		ACE	VAN	ES	LM	VSS	SCS	BES	MN1		ACE	F		I PM	VSS	TI	BES	MT						aterials	
5 PM													LM		SCS		MN2			F					BES	MT		>				tegratio	n
5 PM 5 PM	ACE	APE	ES	LM	VSS VSS		PD	ST		ACE	VAN	ES		VSS VSS		BES BES		FC FC	ACE			PM	VSS VSS				TV				nalysis	/stems	Simu
O L IVI					V 33			01	10					733		DES		10					V33			HZKA	1.4		733.	Venic	e a sy	Stellis	eππu
0 PM																																nfrastru	
																				2002	ED SE	eelo	N 11/2 F	Propul	cion 1	1atoria	lo.	<i>CO</i> 2			tion & I en Sto	Delivery	У
										P	OSTE	R SE	SSION	III: H	vdroge	en Sto	rage :	and			TER SE nology '						100	go		ıyarog uel Cel		aye	
									ge and		cle Te	chnol	ogies /	Analys	sis (Ex	hibit F	Hall A)				gies (E								MN: N	Manufa	acturin	_	
	A	uvanc	eu Po	werE	HECCTO	mics (Exhibi	ı mall	A)				nd ARI								ery, Ba											alidatio	
																			Pro	ducti	on, and	H2 S	tudent	Desig	ın (Ex	hibit H	all B)	8				es & Sta	
0 PM																															ा rans। ns Anal	formatio	υn



Monday, June 16 - Poster Presentations

Exhibit Halls A and B, 6:00-8:00 PM

Electrochemical Storage

ES125; Donghai Wang, Pennsylvania State University: Development of High Energy Density Lithium-Sulfur Cells

ES126; Ionel Stefan, Amprius: Silicon Nanowire Anodes for Next Generation Energy Storage

ES127; Fabio Albano, XALT Energy: Development of Large Format Lithium Ion Cells with Higher Energy Density

ES128; Sergey Lopatin, Applied Materials: Modular Process Equipment for Low Cost Manufacturing of High Capacity Prismatic Li-Ion Cell Alloy Anodes

ES129; Hany Eitouni, Seeo: High-Voltage Solid Polymer Batteries for Electric Drive Vehicles

ES130; Yimin Zhu, Nanosys: Innovative Cell Materials and Designs for 300 Mile Range EVs

ES131; Jagat Singh, 3M: High Energy Novel Cathode / Alloy Automotive Cell

BES026; Shen Dillon, UIUC: In-Situ TEM Observations of Degradation Mechanisms in Next-Generation High Energy Density Lithium-Ion Battery Systems

BES027; Xiaowei Teng, University of New Hampshire: Transition Metal Oxides Spinel Nanomatertials for Supercapacitor Reactions

BES028; Nina Balke, ORNL: Spatially Resolved Ionic Diffusion and Electrochemical Reactions in Solids: A Biased View at Lithium Ion Batteries

BES029; Ajay Singh, LBNL: Inorganic nanocomposite electrodes for electrochemical energy storage and energy conservation

BES030; Shirley Meng, UCSD: New In Situ Analytical Electron Microscopy for Understanding Structure Evolution and Composition Change in High Energy Density

BES031; Chengdu Liang, ORNL: In situ Studies of Solid Electrolyte Interphase on Nanostructured Materials

BES032; Harry Tuller, MIT: Chemomechanics of Far-From-Equilibrium Interfaces (COFFEI)

BES033; Younes Ansari, UT-Austin: Materials and Interfacial Chemistry for Next-Generation Electrical Energy Storage (partner with ORNL)

BES034; Mengqiang Zhao, Drexel: Silicon Carbide Derived Carbons: Experiments and Modeling

BES035; Ralph Colby, Penn State University: Conduction Mechanisms and Structure of Ionomeric Single-Ion Conductors

BES036; Jun Liu, PNNL: Molecularly Organized Nanostructured Materials

BES037; Yet-Ming Chiang, MIT: Electrochemically-Driven Phase Transitions in Battery Storage Compounds

BES038; Mallory Gobet, CUNY-Hunter College: Spectroscopic Studies of Materials for Electrochemical Energy Storage

BES039; Tim Fister, ANL: Center for Electrical Energy Storage: Tailored Interfaces

BES040; Stan Whittingham, SUNY Stony Brook: Northeastern Chemical Energy Storage Center (NOCESC)

BES041; Gary Rubloff, Univ. of Maryland: Science of Precision Multifunctional Nanostructures for Electrical Energy Storage

BES042; Grigorii Soloveichik, General Electric: Center for Electrocatalysis, Transport Phenomena and Materials for Innovative Energy Storage

BES043; Hector Abruna, Cornell: Nanostructured Interfaces for Energy Generation, Conversion, and Storage

BES044; George Crabtree, ANL: A New Paradigm for Beyond Lithium Ion Battery R&D

BES045; Brett Lucht, Brown University: Fundamental Investigations of Mechanical and Chemical Degradation Mechanisms in Lithium Ion Battery Materials

Vehicle and Systems Simulation

VSS139; Shane Halbach, ANL: Accelerating the Evaluation and Market Introduction of Advanced Technologies Through Model Based System Engineering

VSS140; Scott Curran, ORNL: Impacts of Advanced Combustion Engines

VSS053; Ted Bohn, ANL: EV-Smart Grid Research & Interoperability Activities

VSS005; George Fenske, ANL: DOE/DOD Parasitic Energy Loss Collaboration

VSS141; David Smith, ORNL: Powertrain Controls Optimization for Heavy Duty Line Haul Trucks

VSS104; Perry Jones, ORNL: Dynamic Feasibility Study

VSS142; Richard Pratt, PNNL: Vehicle Communications and Charging Control

VSS134; Jason Lustbader, NREL: Vehicle Thermal Systems Modeling in Simulink

VSS119; Adam Duran, NREL: Fleet DNA

Technology Integration

Tl020; Chris Mi, Regents University of Michigan: Center for Electric Drive Transportation at the University of Michigan - Dearborn

Tl021; Gregory Plett, University of Colorado: Innovative Drivetrains in Electric Automotive Technology Education (IDEATE)

Tl022; Giorgio Rizzoni, Ohio State University: GATE: Energy Efficient Vehicles for Sustainable Mobility

TI023; Gregory Shaver, Purdue University: Hoosier Heavy Hybrid Center of Excellence at Purdue University

TI024; Imtiaz Haque, Clemson University: GATE Center of Excellence in Sustainable Vehicle Systems

TI025; Joel Anstrom, Pennsylvania State University: IN-VEHICLE, HIGH-POWER ENERGY STORAGE SYSTEMS

TI026; Uday Vaidya, University of Alabama: GATE Center of Excellence at UAB for Lightweight Materials and Manufacturing for Automotive, Truck and Mass Transit

Clean Energy Research Center - Clean Vehicle Consortium

CERC1: Advanced Batteries

CERC2: Clean Combustion and Energy Converstion

CERC3: Vehicle Electrification

CERC4: Advanced Lightweight Materials and Vehicle Structures

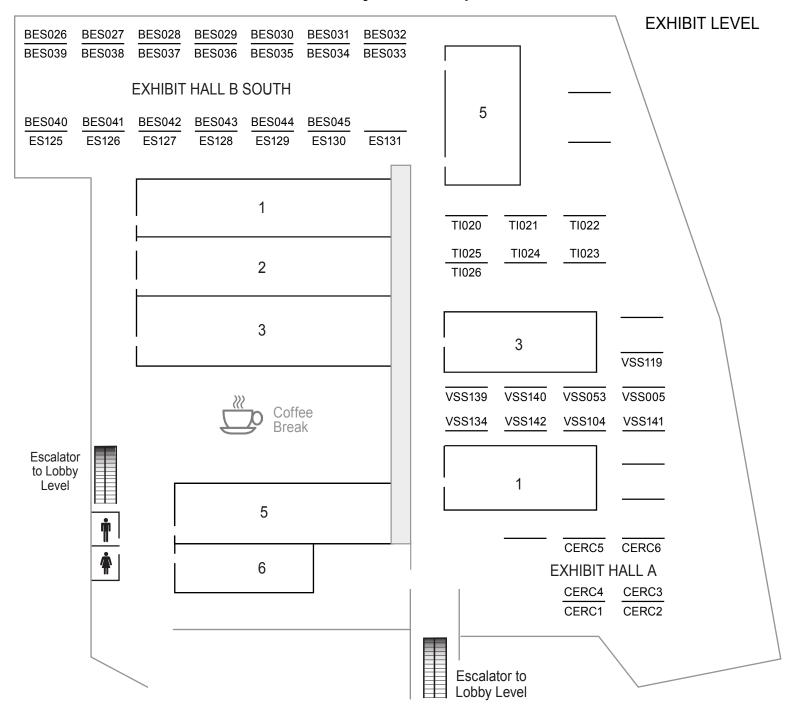
CERC5: Vehicle-Grid Integration

CERC6: Energy Systems Analysis, Technology Road-maps, and Policy



Please mute all cell phones and other portable devices.

Monday Poster Map



Tuesday, June 17 - Oral Presentations

Salon	Delaware A	Roosevelt 3	Maryland ABC
11:00 AM	ACE001; Mark Musculus, SNL: Heavy-Duty Low-Temperature and Diesel Combustion & Heavy-Duty Combustion Modeling	APE032; Christopher Whaling, Synthesis Partners: North American Power Electronics Supply Chain Analysis	ES116; Brian Cunningham, DOE: Overview and Progress of the Battery Testing, Design, and Analysis Activity
11:30 AM	ACE002; Paul Miles, SNL: Light-Duty Diesel Combustion	APE040; Sean Gleason, General Motors: Next Generation Inverter	ES121; Sreekanth Pannala, ORNL: Open Architecture Software for CAEBAT
12:00 PM	ACE004; John Dec, SNL: Low-Temperature Gasoline Combustion (LTGC) Engine Research	APE058; Kraig Olejniczak, APEI Inc.: Advanced Low-Cost SiC and GaN Wide Bandgap Inverters for Under-the-Hood Electric Vehicle Traction Drives	ES118; Steven Hartridge, CD-Adapco: Development of Computer-Aided Design Tools for Automotive Batteries
12:30 LUNCH	1:00 PM - Sunita Sa	atyapal: Hydrogen and Fuel Cells Program Av	vards Presentations
1:45 PM	ACE005; Lyle Pickett, SNL: Spray Combustion Cross-Cut Engine Research	APE053; Madhu Chinthavali, ORNL: Inverter R&D	ES119; Taeyoung Han, General Motors: Development of Computer-Aided Design Tools for Automotive Batteries
	ACE006; Isaac Ekoto, SNL: Automotive Low Temperature Gasoline Combustion Engine Research	APE049; Zhenxian Liang, ORNL: Power Electronics Packaging	ES120; Christian Shaffer, EC-Power: Development of Cell/Pack Level Models for Automotive Li-Ion Batteries with Experimental Validation
2:45 PM	ACE007; Joe Oefelein, SNL: Large Eddy Simulation (LES) Applied to Advanced Engine Combustion Research	APE054; Gui-Jia Su, ORNL: WBG Converters and Chargers	ES197; Gi-Heon Kim, NREL: Significant Enhancement of Computational Efficiency in Nonlinear Multiscale Battery Model for Computer Aided Engineering
	ACE014; David Carrington, LANL: 2014 KIVA Development	APE027; Philip Neudeck, NASA: Development of SiC Large Tapered Crystal Growth	ES198; Harry Moffat, SNL: Coupled Hierarchical Models for Thermal, Mechanical, Electrical and Electrochemical Processes
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	ACE012; Russell Whitesides, LLNL: Model Development and Analysis of Clean & Efficient Engine Combustion	APE059; Angelo Yializis, Sigma Technologies International: High Temperature DC-Bus Capacitors Cost Reduction and Performance Improvements	ES199; Ahmad Pesaran, NREL: Coupling of Mechanical Behavior of Cell Components to Electrochemical-Thermal Models for Computer Aided Engineering of Batteries Under Abuse
	ACE013; Bill Pitz, LLNL: Chemical Kinetic Models for Advanced Engine Combustion	APE060; Dan Tan, GE Global Research: High Performance DC Bus Film Capacitor	ES200; Christian Shaffer, EC-Power: Efficient Safety and Degradation Modeling of Automotive Li-ion Cells and Pack
5:15 PM	ACE076; Matthew McNenly, LLNL: Improved Solvers for Advanced Engine Combustion Simulation	APE061; Balu Balachandran, ANL: Cost- Effective Fabrication of High-Temperature Ceramic Capacitors for Power Inverters	ES108; Tien Duong, DOE: Overview and Progress of the Batteries for Advanced Transportation Technologies
5:45 PM			



Please mute all cell phones and other portable devices.

Tuesday, June 17 - Oral Presentations

	· · · · · · · · · · · · · · · · · · ·	Julie 17 - Oral i resellatio	
Salon	Delaware B	Washington 1	Washington 3
11:00 AM	LM003; Lee McGetrick, ORNL: Carbon Fiber Technology Facility	VSS095; Keith Hardy, ANL: EV - Smart Grid Research & Interoperability Activities	AN044; Aymeric Rousseau, ANL: Impact of Fuel Cell System Peak Efficiency on Fuel Consumption and Cost
11:30 AM	LM006; Felix Paulauskas, ORNL: Advanced Oxidation & Stabilization of PAN-Based Carbon Precursor Fibers	VSS122; Richard Pratt, PNNL: Vehicle to Grid Communications and Field Testing	AN045; Amgad Elgowainy, ANL: Analysis of Incremental Fueling Pressure Cost
12:00 PM	LM048; George Husman, Zoltek: Development and Commercialization of a Novel Low-Cost Carbon Fiber	VSS123; Laura Marlino, ORNL: SAE J2907 Hybrid Motor Ratings Support	AN033; Zhenhong Lin, ORNL: Analysis of Optimal On-Board Storage Pressure for Hydrogen Fuel Cell Vehicles
12:30 LUNCH	1:00 PM - Sunita Sa	atyapal: Hydrogen and Fuel Cells Program Av	vards Presentations
1:45 PM	LM083; Ba Nghiep Nguyen, PNNL: Predictive Engineering Tools for Injection-Molded Long- Carbon-Fiber Composites	VSS029; Tom Garetson, Intertek: Advanced Vehicle Testing & Evaluation	AN046; Zhenhong Lin, ORNL: Hydrogen Station Economics and Business (HySEB) Preliminary Results
2:15 PM	LM084; Libby Berger, GM: Validation of Material Models for Automotive Carbon Fiber Composite Structures	VSS021; Matthew Shirk, INL: Idaho National Laboratory Testing of Advanced Technology Vehicles	AN047; Brendan Shaffer, UCI: Tri-Generation Fuel Cell Technologies for Location-Specific Applications
2:45 PM	LM072; Tim Skszek, VEHMA: Multi-Material Lightweight Vehicles	VSS030; Kevin Stutenberg, ANL: Advanced Technology Vehicle Lab Benchmarking - Level 1	AN036; Todd Ramsden, NREL: Pathway Analysis: Projected Cost, Lifecycle Energy Use and Emissions of Future Hydrogen Technologies
3:15 PM	LM071; Tom Wenzel, LBNL: Relationships between Vehicle Mass, Footprint, and Societal Risk	VSS031; Eric Rask, ANL: Advanced Technology Vehicle Lab Benchmarking - Level 2 (in-depth)	AN039; Amgad Elgowainy, ANL: Life-Cycle Analysis of Water Consumption for Hydrogen Production Pathways
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	LM081; Uday Vaidya, Univ Alabama Birmingham: GATE Center of Excellence at UAB for Lightweight Materials and Manufacturing for Automotive, Truck and Mass Transit	VSS001; Kevin Walkowicz, NREL: Medium and Heavy-Duty Vehicle Field Evaluations	Impacts of Infrastructure Development for Hydrogen and Fuel Cell Technologies
4:45 PM	LM085; Khongor Jamiyanaa, Univ Alabama Birmingham: Development of Thermoplastic Pultrusion with Modeling and Experiments	VSS046; Daniel Leighton, NREL: Integrated Vehicle Thermal Management – Combining Fluid Loops in Electric Drive Vehicles	AN049; Joshua Eichman, NREL: Electricity Market Valuation for Hydrogen Technologies
5:15 PM	LM088; Tim Skszek, VEHMA: Multi-Material Lightweight Vehicles: Mach II Design	VSS124; Kevin Walkowicz, NREL: Medium Duty ARRA Data Reporting and Analysis	
5:45 PM		VSS097; John Rugh, NREL: Electric Drive Vehicle Climate Control Load Reduction	



Please mute all cell phones and other portable devices.

Tuesday, June 17 - Oral Presentations

Salon	Roosevelt 1	Washington 5	Virginia ABC
11:00 AM	PD014; Amgad Elgowainy, ANL: Hydrogen Delivery Infrastructure Analysis	ST001; Rajesh Ahluwalia, ANL: System Level Analysis of Hydrogen Storage Options	FC109; Michael Yandrasits, 3M: New Fuel Cell Membranes with Improved Durability & Performance
11:30 AM	PD100; Kevin Harrison, NREL: 700 bar Hydrogen Dispenser Hose Reliability Improvement	ST100; Brian James, Strategic Analysis, Inc.: Ongoing Analysis of H2 Storage System Costs	FC110; Andrew Herring, Colorado School of Mines: Advanced Hybrid Membranes for Next Generation PEMFC Automotive Applications
12:00 PM	PD088; Zhili Feng, ORNL: Vessel Design and Fabrication Technology for Stationary High-Pressure Hydrogen Storage	ST014; Phil Parilla, NREL: Hydrogen Sorbent Measurement Qualification and Characterization	FC006; Dennis van der Vliet, 3M: Durable Catalysts for Fuel Cell Protection During Transient Conditions
12:30 LUNCH	1:00 PM - Sunita Sa	tyapal: Hydrogen and Fuel Cells Program A	Awards Presentations
1:45 PM	PD025; Brian Somerday, SNL: Hydrogen Embrittlement of Structural Steels	ST103; Jeffrey Long, LBNL: Hydrogen Storage in Metal-Organic Frameworks	FC007; Bryan Pivovar, NREL: Extended, Continuous Pt Nanostructures in Thick, Dispersed Electrodes
2:15 PM	PD022; George Rawls, SRNL: Fiber Reinforced Composite Pipelines	ST019; Peter Pfeifer, U of Missouri: Multiply Surface-Functionalized Nanoporous Carbon for Vehicular Hydrogen Storage	FC008; Vojislav Stamenkovic, ANL: Nanosegregated Cathode Catalysts with Ultra- Low Platinum Loading
2:45 PM	PD048; Ludwig Lipp, FuelCell Energy, Inc.: Electrochemical Hydrogen Compressor	ST104; Tom Autrey, PNNL: Novel Carbon(C)-Boron(B)-Nitrogen(N)-Containing H2 Storage Materials	FC009; Radoslav Adzic, BNL: Contiguous Platinum Monolayer Oxygen Reduction Electrocatalysts on High-Stability-Low-Cost Supports
3:15 PM	PD017; Frank Di Bella, Concepts NREC: Development of a Centrifugal Hydrogen Pipeline Gas Compressor	ST063; Ragaiy Zidan, SRNL: Reversible Formation of Alane	FC010; Fernando Garzon, LANL: The Science and Engineering of Durable Ultralow PGM Catalysts
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	PD021; Don Baldwin, Hexagon Lincoln: Development of High Pressure Hydrogen Storage Tank for Storage and Gaseous Truck Delivery	ST093; Felix Paulauskas, ORNL: Melt Processable PAN Precursor for High Strength, Low-Cost Carbon Fibers	FC085; Nilesh Dale, Nissan: Synthesis and Characterization of Mixed-Conducting Corrosion Resistant Oxide Supports
4:45 PM	PD101; Keith Hill, Nanosonic: Cryogenically Flexible, Low Permeability H2 700 Bar Delivery Hose	ST099; Dave Warren, ORNL: Development of Low-Cost, High Strength Commercial Textile Precursor (PAN-MA)	FC086; Sanjeev Mukerjee, Northeastern Univ: Development of Novel Non-Pt Group Metal Electrocatalysts for Proton Exchange Membrane Fuel Cell Applications
5:15 PM	PD016; Hooshang Heshmat, Mohawk Innovative Technology: Oil-Free Centrifugal Hydrogen Compression Technology	ST101; Kevin Simmons, PNNL: Enhanced Materials and Design Parameters for Reducing the Cost of Hydrogen Storage	FC087; Anusorn Kongkanand, GM: High- Activity Dealloyed Catalysts
5:45 PM		ST111; Salvador Aceves, LLNL: Thermomechanical Cycling of Thin Liner High Fiber Fraction Cryogenic Pressure Vessels Rapidly Refueled by LH2 pump to 700 bar	FC088; Branko Popov, U of South Carolina: Development of Ultra-Low Doped-Pt Cathode Catalysts for PEM Fuel Cells



Please mute all cell phones and other portable devices.

Tuesday, June 17 - Poster Presentations Exhibit Hall A, 6:30-8:30 PM Electrochemical Storage 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 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: Advanced Battery Recycling ES206; Jong Yoo, Applied Spectra: Real-time Metrology for Li-ion Battery R&D and Manufacturing ES143; Jack Vaughey, ANL: Novel Anode Materials ES049; Michael Thackeray, ANL: Design and Evaluation of High Capacity Cathodes ES063; Stanley Whittingham, Binghamton University-SUNY: Metal-Based High Capacity Li-Ion Anodes ES183; Feng Wang, BNL: In situ Solvothermal Synthesis of Novel High Capacity Cathodes ES059; Xiao-Qing Yang, BNL: Advanced in situ Diagnostic Techniques for Battery Materials ES220; Dean Wheeler, BYU: Predicting Microstructure and Performance for Optimal Cell Fabrication ES221; Xingcheng Xiao, GM: A Combined Experimental and Modeling Approach for the Design of High Coulombic Efficiency Si Electrodes ES222; Karim Zaghib, Hydro Quebec: Electrode Architecture-Assembly of Battery Materials and Electrodes ES223; Gao Liu, LBNL: Hierarchical Assembly of Inorganic/Organic Hybrid Si Negative Electrodes ES052; Marca Doeff, LBNL: Design of High Performance, High Energy Cathode Materials ES085; Robert Kostecki, LBNL: Interfacial Processes in EES Systems Advanced Diagnostics ES224; Nitash Balsara, LBNL: Fundamental Studies of Lithium-Sulfur Cell Chemistry ES225; Guoying Chen, LBNL: Design and Synthesis of Advanced High-Energy Cathode Materials ES091; Kristin Persson, LBNL: Predicting and Understanding Novel Electrode Materials From First-Principles ES071; Yet-Ming Chiang, Massachusetts Institute of Technology: Design and Scalable Assembly of High Density Low Tortuosity Electrodes ES054; Gerbrand Ceder, Massachusetts Institute of Technology: First Principles Calculations of Existing and Novel Electrode Materials

ES145; Chunmei Ban, NREL: Atomic Layer Deposition for Stabilization of Silicon Anodes

ES184; Andrew Kercher, ORNL: Lithium Bearing Mixed Polyanion Glasses as Cathode Materials

ES106; Jagjit Nanda, ORNL: Studies on High Capacity Cathodes for Advanced Lithium-ion Systems
ES147; Donghai Wang, Pennsylvania State University: Synthesis and Characterization of Polymer-Coated Layered SiOx-Graphene Nanocomposite Anodes

ES144; Jason Zhang, PNNL: Development of Silicon-based High Capacity Anodes

ES056; Jason Zhang, PNNL: Development of High-Energy Cathode Materials

ES226; Chongmin Wang, PNNL: Microscopy Investigation on the Fading Mechanism of Electrode Materials

ES148; Yi Cui, Stanford University: Wiring up Silicon Nanoparticles for High Performance Lithium-ion Battery Anodes

ES214; Perla Balbuena, Texas A&M: First Principles Modeling of SEI Formation on Bare and Surface/Additive Modified Silicon Anodes

ES055; Clare Grey, U. of Cambridge: First Principles Calculations and NMR Spectroscopy of Electrode Materials

ES061; Prashant Kumta, University of Pittsburgh: Nanoscale Heterostructures and Thermoplastic Resin Binders: Novel Li-ion Anode Systems

ES051; Arumugam Manthiram, U of Texas at Austin: HIGH-CAPACITY POLYANION CATHODES

ES215; G. Somorajai, UC Berkeley: Analysis of Film Formation Chemistry on Silicon Anodes by Advanced In Situ and Operando Vibrational Spectroscopy

ES216; Shirley Meng, UC San Diego: Optimization of Ion Transport in High-Energy Composite Cathodes

ES067; Brett Lucht, U of Rhode Island: Development of Electrolytes for Lithium-ion Batteries

ES217; Ron Hendershot, Daikin America: Daikin Advanced Lithium Ion Battery Technology — High Voltage Electrolyte

ES218; John Zhang, ANL: Fluorinated Electrolyte for 5-V Li-lon Chemistry

ES219; Dee Strand, Wildcat Discovery: Novel Non-Carbonate Based Electrolytes for Silicon Anodes

Advanced Power Electronics

APE037; Gilbert Moreno, NREL: Two-Phase Cooling of Power Electronics

APE063; Doug DeVoto, NREL: Performance and Reliability of Bonded Interfaces for High-Temperature Packaging

APE006; Tim Burress, ORNL: Benchmarking EV and HEV Technologies

APE026; Tam Duong, NIST: Electro-thermal-mechanical Simulation and Reliability for Plug-in Vehicle Converters and Inverters

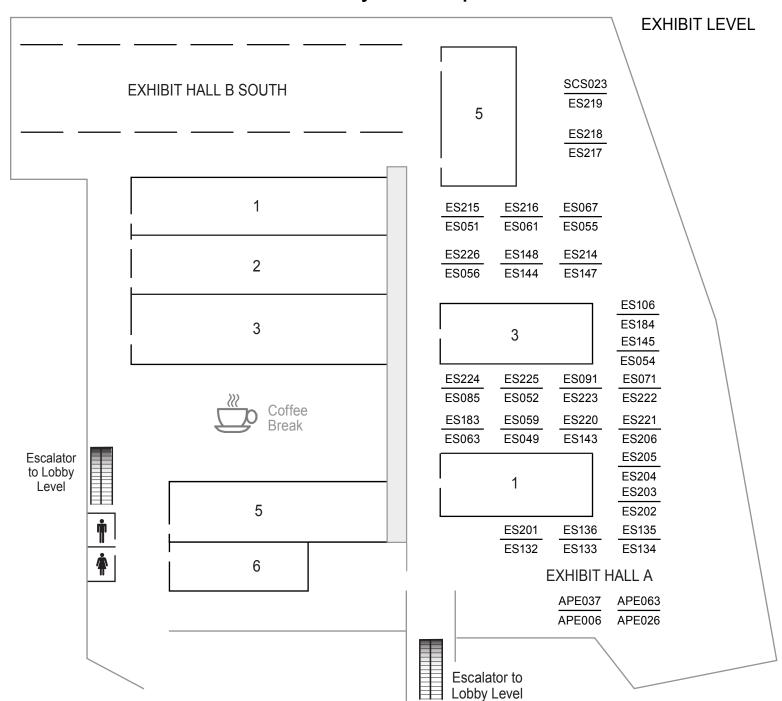
Safety, Codes & Standards

SCS023; Igor Pavlovsky, Applied Nanotech : Hydrogen Leak Detector for Hydrogen Dispenser



Please mute all cell phones and other portable devices.

Tuesday Poster Map



Wednesday, June 18 - Oral Presentations

	,	, Julie 16 - Orai Presentati	
Salon	Delaware A	Roosevelt 3	Maryland ABC
8:15 AM			ES014; Peter Faguy, DOE: Overview and Progress of Applied Battery Research (ABR) Activities
8:30 AM	ACE075; Sibendu Som, ANL: Advancement in Fuel Spray and Combustion Modeling for Compression Ignition Engine Applications	APE036; Doug DeVoto, NREL: Reliability of Electrical Interconnects	ES208; Khalil Amine, ANL: New High-Energy Electrochemical Couple for Automotive Applications
9:00 AM	ACE010; Christopher Powell, ANL: Fuel Injection and Spray Research Using X-Ray Diagnostics	APE019; Scot Waye, NREL: High-Temperature Air-Cooled Power Electronics Thermal Design	ES209; Jane Rempel, TIAX: High Energy High Power Battery Exceeding PHEV-40 Requirements
9:30 AM	ACE011; Steve Ciatti, ANL: Use of Low Cetane Fuel to Enable Low Temperature Combustion	APE015; Iver Anderson, Ames: Permanent Magnet Development for Automotive Traction Motors	ES210; Jagat Singh, 3M: Advanced High Energy Li-ion Cell for PHEV and EV Applications
10:00 AM	ACE054; Scott Goldsborough, ANL: Collaborative Combustion Research with BES	APE045; Ayman El-Refaie, General Electric Global: Alternative High-Performance Motors with Non-Rare Earth Materials	ES211; Subramanian Venkatachala, Envia: High Energy Lithium Batteries for PHEV Applications
10:30 AM	BREAK	BREAK	BREAK
11:00 AM	ACE084; Thomas Wallner, ANL: High Efficiency GDI Engine Research, with Emphasis on Ignition Systems	APE044; Jon Lutz, UQM Technologies, Inc.: Unique Lanthide-Free Motor Construction	ES212; Donghai Wang, Penn State: High Energy, Long Cycle Life Lithium-ion Batteries for PHEV Applications
11:30 AM	ACE015; James Szybist, ORNL: Stretch Efficiency for Combustion Engines: Exploiting New Combustion Regimes	APE062; Tim Burress, ORNL: Scalable Non- Rare Earth Motor Development	ES213; Keith Kepler, Farasis: High Energy Density Li-ion Cells for EV's Based on Novel, High Voltage Cathode Material Systems
12:00 PM	ACE016; Scott Curran, ORNL: High Efficiency Clean Combustion in Multi-Cylinder Light-Duty Engines	APE064; Kevin Bennion, NREL: Convective Cooling and Passive Stack Improvements in Motors	ES168; Kris Pupek, ANL: Process Development and Scale up of Advanced Electrolyte Materials
12:30 LUNCH	1:00 PM - Patri	ck Davis: Vehicle Technologies Office Award	s Presentations
1:45 PM	ACE017; Kevin Edwards, ORNL: Accelerating Predictive Simulation of IC Engines with High Performance Computing	VAN009; Stacy Davis, ORNL: Transportation Energy Data Book, Vehicle Technologies Market Report, and VT Fact of the Week	ES207; Claus Daniel, ORNL: Manufacturability Study and Scale-Up for Large Format Lithium Ion Batteries
2:15 PM	ACE090; Brian Kaul, ORNL: High-Dilution Stoichiometric Gasoline Direct-Injection (SGDI) Combustion Control Development	VAN011; Joann Zhou, ANL: E-drive Vehicle Sales Analyses	ES164; Jianlin Li, ORNL: Overcoming Processing Cost Barriers of High-Performance Lithium-lon Battery Electrodes
2:45 PM	ACE077; Bill Partridge, ORNL: Cummins- ORNL\FEERC Combustion CRADA: Characterization & Reduction of Combustion Variations	VAN008; Aymeric Rousseau, ANL: Evaluation of VTO Benefits Using Large Scale Simulation	ES165; David Wood, ORNL: Roll-to-Roll Electrode Processing NDE for Advanced Lithium Secondary Batteries
3:15 PM	ACE052; Todd Toops, ORNL: Neutron Imaging of Advanced Engine Technologies	VAN012; Alicia Birky, TAE: Modeling for Market Analysis: HTEB, TRUCK, and LVChoice	ES166; Ira Bloom, ANL: Post-Test Analysis of Lithium-Ion Battery Materials at Argonne National Laboratory
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	ACE022; Josh Pihl, ORNL: Joint Development and Coordination of Emissions Control Data and Models (CLEERS Analysis and Coordination)	VAN006; Joann Zhou, ANL: Development and Update of Long-Term Energy and GHG Emission Macroeconomic Accounting Tool	ES036; Chris Orendorff, SNL: Abuse Tolerance Improvements
4:45 PM	ACE023; George Muntean, PNNL: CLEERS Aftertreatment Modeling and Analysis	VAN010; Changzheng Liu, ORNL: Reassessing the Outlook of US Oil Dependence Using Oil Security Metrics Model	ES030; Andrew Jansen, ANL : Cell Analysis, Modeling, and Prototyping (CAMP) Facility Research Activities
5:15 PM	ACE078; Ayman Karim, PNNL: Investigation of Mixed Oxide Catalysts for NO Oxidation	VAN013; Changzheng Liu, ORNL: Transportation Energy Transition Modeling and Analysis:the LAVE-Trans Model	ES167; Greg Krumdick, ANL: Process Development and Scale-up of Advanced Cathode Materials
5:45 PM			



Please mute all cell phones and other portable devices.

Wednesday, June 18 - Oral Presentations

	• • • • • • • • • • • • • • • • • • •	, Julie 10 - Orai Preselliai	10113
Salon	Delaware B	Washington 1	Washington 3
8:30 AM	LM056; Curt Lavender, PNNL: Non-Rare Earth High-Performance Wrought Magnesium Alloys	VSS125; Aymeric Rousseau, ANL: Trip Prediction and Route-Based Vehicle Energy Management	SCS011; Katrina Groth, SNL: Hydrogen behavior and Quantitative Risk Assessment
9:00 AM	LM076; Kinga Unocic, ORNL: Understanding Protective Film Formation by Magnesium Alloys in Automotive Applications	VSS126; Jeff Gonder, NREL: Internal Combustion Engine Energy Retention (ICEER)	SCS002; Robert Burgess, NREL: Component Standard Research & Development
9:30 AM	LM035; Steve Derezinski, INFINIUM, Inc.: Scale-Up of Magnesium Production by Fully Stabilized Zirconia Electrolysis	VSS127; Aymeric Rousseau, ANL: Vehicle Level Model and Control Development and Validation Under Various Thermal Conditions	SCS005; Chris San Marchi, SNL: R&D for Safety, Codes and Standards: Materials and Components Compatibility
10:00 AM	LM057; Xin Sun, PNNL: Mechanistic-Based Ductility Prediction for Complex Mg Castings	VSS121; Paul Chambon, ORNL: APEEM Components Analysis and Evaluation	SCS007; Tommy Rockward, LANL: Hydrogen Fuel Quality
10:30 AM	BREAK	BREAK	BREAK
11:00 AM	LM077; Steve Logan, USAMP: Mechanistic- based Ductility Prediction□for Complex Mg Castings	VSS128; Aymeric Rousseau, ANL: Impact of Advanced Technologies on Engine Targets	SCS021; Bill Buttner, NREL: NREL Hydrogen Sensor Testing Laboratory
11:30 AM	LM080; Lou Hector, USAMP: Integrated Computational Materials Engineering Approach to Development of Lightweight 3GAHSS Vehicle Assembly	VSS129; Jeff Gonder, NREL: In-Vehicle Evaluation of Lower-Energy Energy Storage System (LEESS) Devices	SCS004; Eric Brosha, LANL: Hydrogen Safety, Codes and Standards: Sensors
12:00 PM	LM060; Mark Smith, PNNL: Aerodynamic Lightweight Cab Structure Components	VSS033; Barney Carlson, INL: Electric Drive and Advanced Battery and Components Testbed (EDAB)	SCS019; Nick Barilo, PNNL: Hydrogen Safety Panel and Hydrogen Safety Knowledge Tools
12:30 LUNCH	1:00 PM - Patri	ck Davis: Vehicle Technologies Office Award	s Presentations
1:45 PM	LM062; Dave Warren, ORNL: Improving Fatigue Performance of AHSS Welds	VSS103; P.T. Jones, ORNL: Wireless Charging	SCS001; Carl Rivkin, NREL: National Codes and Standards Deployment and Outreach
2:15 PM	LM054; Jian Chen, ORNL: On-Line Weld NDE with IR Thermography	VSS102; Allan Lewis, Hyundai: High Efficiency, Low EMI and Positioning Tolerant Wireless Charging of EVs	SCS015; Nick Barilo, PNNL: Hydrogen Emergency Response Training for First Responders
2:45 PM	LM075; Yuri Hovanski, PNNL: High Speed Joining of Dissimilar Alloy Aluminum Tailor Welded Blanks	VSS096; Barney Carlson, INL: INL Testing of Wireless Charging Systems	SCS017; Gregg Holtmeier, LLNL: Hands-on Hydrogen Safety Training
3:15 PM	LM086; Glenn Daehn, Ohio State University: Collision Welding of Dissimilar Materials by Vaporizing Foil Actuator	VSS130; Jeff Gonder, NREL: Advanced Wireless Power Transfer and Infrastructure Analysis	SCS020; Jay Keller, Consultant: International Partnership for Hydrogen & Fuel Cells in the Economy - Regulations Codes and Standards
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	LM087; Mahmood Haq, Michigan State University: Active, Tailorable Adhesives for Dissimilar Material Bonding, Repair and Assembly	VSS131; Matthew Shirk, INL: DC Fast Charging Effects on Battery Life and EVSE Efficiency and Security Testing	SCS022; Karen Hall, Fuel Cell & Hydrogen Energy Association: Fuel Cell & Hydrogen Energy Association Codes and Standards Support
4:45 PM	LM074; Elizabeth Stephens, PNNL: SPR Process Simulation, Analyses, and Development for Magnesium Joints	VSS114; Anthony Markel, NREL: PEV Integration with Renewables	
5:15 PM		VSS132; Wenhau Yu, ANL: Thermal Control of Power Electronics of Electric Vehicles with Small Channel Coolant Boiling	
5:45 PM		VSS112; Elena Timofeeva, ANL: Development of Nanofluids for Cooling Power Electronics for Hybrid Electric Vehicles	



Please mute all cell phones and other portable devices.

Wednesday, June 18 - Oral Presentations

		, Julie 10 - Oral Presentati	•
Salon	Roosevelt 1	Washington 5	Virginia ABC
8:30 AM	PD102; Whitney Colella, Strategic Analysis,	ST004; Don Anton, SRNL: Hydrogen Storage	FC107; Piotr Zelenay, LANL: Non-Precious
	Inc.: Hydrogen Pathways Analysis for Polymer	Engineering Center of Excellence	Metal Fuel Cell Cathodes: Catalyst
9:00 AM	Electrolyte Membrane (PEM) Electrolysis PD091; Ambal Jayaraman, TDA Research: Bio-		Development & Electrode Structure Design FC104; Andrew Steinbach, 3M: High
9.00 AIVI	Fueled Solid Oxide Fuel Cells		Performance, Durable, Low Cost Membrane
	3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3		Electrode Assemblies for Transportation
			Applications
9:30 AM	PD103; Hui Xu, Giner Electrochemical	ST044; Bruce Hardy, SRNL: SRNL Technical	FC106; Deborah Myers, ANL: Rationally
	Systems: High-Performance, Long-Lifetime	Work Scope for the Hydrogen Storage	Designed Catalyst Layers for PEMFC
	Catalysts for Proton Exchange Membrane Electrolysis	Engineering Center of Excellence: Design and Testing of Adsorbent Storage	Performance Optimization
10:00 AM	PD094; Katherine Ayers, Proton OnSite:	ST010; Mike Veenstra, Ford Motor: Ford/BASF-	FC108; Bryan Pivovar, NREL: Advanced
	Economical Production of Hydrogen Through	SE/UM Activities in Support of the Hydrogen	Ionomers & MEAs for Alkaline Membrane Fuel
	Development of Novel, High Efficiency	Storage Engineering Center of Excellence	Cells
	Electrocatalysts for Alkaline Membrane		
10:30 AM	Electrolysis	DDEAK	DDEAK
	BREAK	BREAK	BREAK
11:00 AM	PD098; Katherine Ayers, Proton OnSite: Low- Noble-Metal-Content Catalysts/Electrodes for	ST046; Kevin Drost, Oregon State U: Microscale Enhancement of Heat and Mass	FC091; Piotr Zelenay, LANL: Advanced Materials and Concepts for Portable Power
	Hydrogen Production by Water Electrolysis	Transfer for Hydrogen Energy Storage	Fuel Cells
11:30 AM	PD031; Kevin Harrison, NREL: Renewable	ST047; Norman Newhouse, Hexagon Lincoln:	FC102; Earl Wagener, Tetramer Technologies,
	Electrolysis Integrated System Development	Development of Improved Composite Pressure	LLC: New High Performance Water Vapor
	and Testing	Vessels for Hydrogen Storage	Membranes To Improve Fuel Cell Balance of
40.00 =::	DD005 T IID I IID I	OTOGO B. (Plant Efficiency and Lower Costs
12:00 PM	PD035; Todd Deutsch, NREL: Semiconductor Materials for Photoelectrolysis	ST006; Bart van Hassel, UTRC: Advancement of Systems Designs and Key Engineering	FC103; Dale Stretch, Eaton Corp.: Roots Air Management System with Integrated Expander
	INIGIGIAIS IOI FIIOIOGICCIIOIYSIS	Technologies for Materials Based Hydrogen	iwanagement System with integrated Expander
		Storage	
12:30 LUNCH	1:00 PM - Patri	ck Davis: Vehicle Technologies Office Award	s Presentations
1:45 PM	PD058; Tadashi Ogitsu, LLNL/NREL:	ST007; Troy Semelsberger, LANL: Chemical	FC013; Rod Borup, LANL: Durability
	Characterization and Optimization of	Hydrogen Rate Modeling, Validation, and	Improvements Through Degradation
	Photoelectrode Surfaces for Solar-to-Chemical Fuel Conversion	System Demonstration	Mechanism Studies
2:15 PM	BES001; Neal Armstrong, University of	ST005; Kriston Brooks, PNNL: Systems	FC016; Rangachary Mukundan, LANL:
	Arizona: "Electrochemically Wired" Dye-	Engineering of Chemical Hydrogen, Pressure	Accelerated Testing Validation
	Modified Dendrimers and Semiconductor	Vessel, and Balance of Plant for On-Board	
	Nanoparticles in Sol-Gel Thin Films: Toward	Hydrogen Storage	
2:45 PM	Vectorial Electron Transport in Hybrid	STOOP Matthour Thomaton NDTI - Out-to-	ECO26: Adom Weber LDNII : Evel Cell
2:45 PIVI	BES002; Alexey Akimov, University of Rochester: Real-Time Atomistic Simulation of	ST008; Matthew Thornton, NREL: System Design, Analysis, and Modeling for Hydrogen	FC026; Adam Weber, LBNL: Fuel-Cell Fundamentals at Low and Subzero
	Light Harvesting and Charge Transport for	Storage Systems	Temperatures
	Solar Hydrogen Production		
3:15 PM	BES003; Nathan Neale, National Renewable	MN008; Patrick Lam, Quantum Fuel Systems	FC048; Huyen Dinh, NREL: Effect of System
	Energy Laboratory: Solar Photoconversion in	Technologies Worldwide, Inc.: Development of	Contaminants on PEMFC Performance and
	Molecular, Nanoscale and Semiconductor	Advanced Manufacturing Technologies for Low	Durability
	Systems - Interfacial Photochemistry and Catalysis	Cost Hydrogen Storage Vessels	
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	BES004; David Tiede, Argonne National	MN001; Michael Ulsh, NREL: Fuel Cell MEA	FC065; Jean St-Pierre, Hawaii Natural Energy
	Laboratory: Hierarchical Photosynthetic	Manufacturing R&D	Institute: The Effect of Airborne Contaminants
	Systems	-	on Fuel Cell Performance and Durability
4:45 PM		MN004; Colin Busby, W.L. Gore:	FC096; Patricia Irving, InnovaTek, Inc.: Power
	of Protein Film Electrochemistry to	Manufacturing of Low-Cost, Durable	Generation from an Integrated Biomass
	Characterize the Mechanisms Imparting Aerotolerance and Bidirectionality in Soluble,	Membrane Electrode Assemblies Engineered for Rapid Conditioning	Reformer and Solid Oxide Fuel Cell (SBIR Phase III Xlerator Program)
5:15 PM	BES006; Michael Adams, University of	ioi Napiu Conditioning	FC111; Shyam Kocha (NREL), Voya
5.151 W	Georgia: Hypothermophilic Multiprotein		Stamenkovic (ANL) & Debbie Myers (ANL):
	Complexes and Pathways for Energy		Best Practices and Benchmark Activities for
	Conservation and Catalysis		ORR Measurements by the Rotating Disk
5:45 PM	BES007; Paul King, National Renewable		Electrode Technique
5.45 FIVI	Energy Laboratory: Photobiological and		
	Photobiohybrid Solar Fuels: Photobiohybrid		
	Project		
	· · · · · · · · · · · · · · · · · · ·	·	· · · · · · · · · · · · · · · · · · ·



Please mute all cell phones and other portable devices.

Wednesday, June 18 - Poster Presentations

Exhibit Halls A and B, 6:30-8:30 PM

Fuel Cells

FC036; Cortney Mittelsteadt, Giner Electrochemical Systems, LLC: Dimensionally Stable High Performance Membranes

FC040; Ludwig Lipp, FuelCell Energy, Inc.: High Temperature Membrane with Humidification-Independent Cluster Structure

FC052; Tommy Rockward, LANL: Technical Assistance to Developers

FC054; Cortney Mittelsteadt, Giner Electrochemical Systems, LLC: Transport in PEMFCs

FC081; Jennifer Kurtz, NREL: Fuel Cell Technology Status Cost & Price Status

FC084; John Turner, NREL: WO3 and HPA Based Systems for Durable Pt Catalysts in PEMFC Cathodes

FC092; Wenbin Gu, GM: Investigation of Micro- and Macro-Scale Transport Processes for Improved Fuel Cell Performance

FC105; C.H. Wang, TreadStone Technologies, Inc.: Novel Structured Metal Bipolar Plates for Low Cost Manufacturing

FC112; Yu Seung Kim, LANL: Resonance-Stabilized Anion Exchange Polymer Electrolytes

FC113; Di-Jia Liu, ANL: Non-PGM Cathode Catalysts using ZIF-based Precursors with Nanonetwork Architecture

FC049; Silvia Wessel, Ballard: Open-Source FCPEM-Performance and Durability Model (FC-APOLLO): Consideration of Membrane Properties on Cathode

MT015; Genevieve Saur, NREL: FCTAC Web Portal Tool Development

ARPA-E1; Singaravelu Elangovan, Ceramatec: Intermediate Temperature Proton Conducting Fuel Cells for Transportation Applications

ARPA-E2; Katherine Ayers, Proton OnSite: H2 Production via Anion Exchange Membrane Electrolysis

ARPA-E3; Yushan Yan, U of Delaware: Polymer Anion Exchange Membrane Based Electrochemical Energy Systems: Fuel Cells, Electrolyzers and Flow Batteries

ARPA-E4; Mike Hickner, Penn State: Anion Exchange Membrane Stability

ARPA-E5; Yu Seung Kim, LANL: Alkaline Fuel Cell Membrane/Catalyst

ARPA-E6; Sanjeev Mukerjee, Northeastern Univ: Anion Exchange Membrane Electrolyzer Catalyst

ARPA-E7; Chinbay Fan, GTI: Methane to Methanol Fuel: A Low Temperature Process

ARPA-E8; Michael Perry, UTRC: Breakthrough Flow Battery Cell Stack

ARPA-E9; Mike Aziz, Harvard: Small Organic Molecule Based Flow Battery for Grid Storage

ARPA-E10; Sri Narayan, USC: Fe-Air and All Organic Flow Batteries

Hydrogen Storage

ST034; Jim Wegrzyn, BNL: Aluminum Hydride: the Organometallic Approach

ST028; Christopher Wolverton, Northwestern U: Design of Novel Multi-Component Metal Hydride-Based Mixtures for Hydrogen Storage

ST048; Andrew Goudy, Delaware State U: Hydrogen Storage Materials for Fuel Cell Powered Vehicles

ST067; Terry Udovic, NIST: Neutron Characterization in Support of the DOE Hydrogen Storage Sub-Program

ST009; Mei Cai, General Motors: Testing and Modeling of a Cryogenic Hydrogen Storage System with a Helical Coil Electric Heater

ST095; Adrian Narvaez, Hawaii Hydrogen cArriers, LLC: Low Cost, Metal Hydride Based Hydrogen Storage System for Forklift Applications (Phase II)

ST105; Dongsheng Mao, Applied Nanotech, Inc.: Ultra Lightweight High Pressure Hydrogen Fuel Tanks Reinforced with Carbon Nanotubes

ST110; Andrea Haight, Composite Technology Development: Optimizing the Cost and Performance of Composite Cylinders for H2 Storage using a Graded Construction

ST112; Scott McWhorter, SRNL: Load-Sharing Polymeric Liner for Hydrogen Storage Composite Tanks

Vehicle Technologies Analysis

VAN003; Mark Singer, NREL: Consumer Vehicle Technology Data

VAN004; Aaron Brooker, NREL: Unified Modeling, Simulation, and Market Implications: FASTSim and ADOPT

VAN002; Michael Wang, ANL: Emissions Modeling: GREET Life Cycle Analysis

VAN005; Zhenhong Lin, ORNL: Consumer-Segmented Vehicle Choice Modeling: the MA3T Model

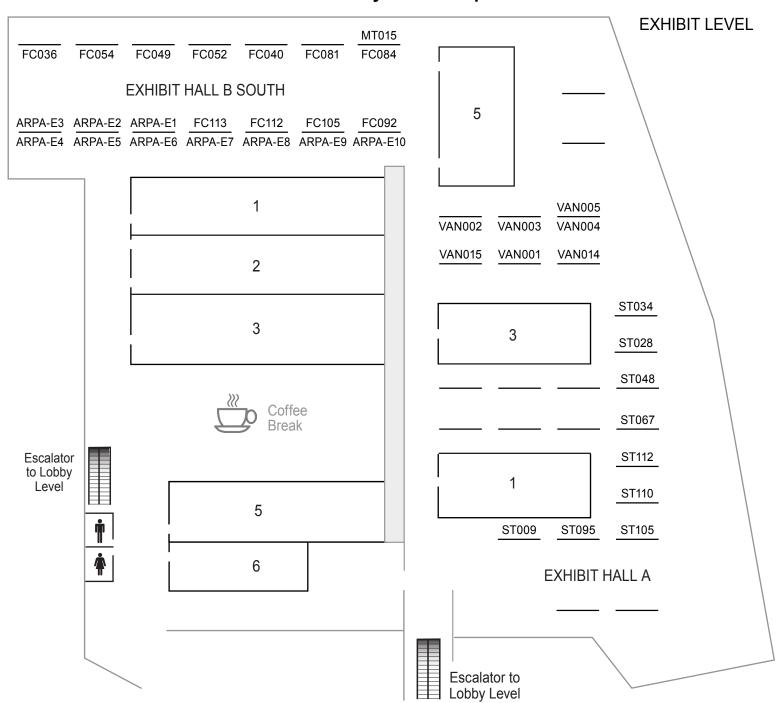
VAN014; Dawn Manley, SNL: Parametric Vehicle Choice Modeling: ParaChoice

VAN001; Tom Stephens, ANL: Impact Analysis: VTO Baseline and Scenario (BaSce) Activities

VAN015; Michael Nicholas, UCD: PEV Consumer Behavior in Practice (PCBIP)

Please mute all cell phones and other portable devices.

Wednesday Poster Map



Thursday, June 19 - Oral Presentations

Salon	Delaware A	Roosevelt 3	Maryland ABC
8:15 AM	Dolawale A	10036¥GIL 0	ES227; Peter Faguy, DOE: The Voltage Fade
			Project: a New Paradigm for Applied Battery Research
8:30 AM	ACE026; Chuck Peden, PNNL: Enhanced High and Low Temperature Performance of NOx Reduction Materials	FT008; James Szybist, ORNL: Gasoline-Like Fuel Effects on Advanced Combustion Regimes	LMR-NMC Cathodes
9:00 AM	ACE027; Chuck Peden, PNNL: Thermally Stable Ultra-Low Temperature Oxidation Catalysts	FT015; Rolf Reitz, WERC: Demonstration/Development of Reactivity Controlled Compression Ignition (RCCI) Combustion for High Efficiency, Low Emissions Vehicle Applications	ES194; Jason Croy, ANL: Understanding Structural Changes in LMR-NMC Materials
9:30 AM	ACE056; Mark Stewart, PNNL: Fuel-Neutral Studies of Particulate Matter Transport Emissions	FT002; Brad Zigler, NREL: Advanced Combustion and Fuels	ES187; Baris Key, ANL: Solid State NMR Studies of Li-Rich NMC Cathodes: Investigating Structure Change and Its Effect
10:00 AM	ACE033; Jim Parks, ORNL: Emissions Control for Lean Gasoline Engines	FT016; John Heywood, MIT: High Compression Ratio Turbo Gasoline Engine Operation Using Alcohol Enhancement	ES193; Hakim Iddir, ANL: Atomistc Models of LMRNMC Materials
10:30 AM	BREAK	BREAK	BREAK
11:00 AM	ACE085; Jim Parks, ORNL: Low Temperature Emission Control to Enable Fuel-Efficient Engine Commercialization	FT004; Chuck Mueller, SNL: Fuel Effects on Mixing-Controlled Combustion Strategies for High-Efficiency Clean-Combustion Engines	ES188; Daniel Abraham, ANL: Characterization of Voltage Fade in Lithium-ion Cells with Layered Oxides
11:30 AM	ACE032; Bill Partridge, ORNL: Cummins/ORNL-FEERC CRADA: NOx Control & Measurement Technology for Heavy-Duty Diesel Engines	FT003; Matt Ratcliff, NREL: Performance of Biofuels and Biofuel Blends	ES189; Dennis Dees, ANL: Electrochemical Modeling of LMR-NMC Materials and Electrodes
12:00 PM	ACE024; Hee Je Seong, ANL: Particulate Emissions Control by Advanced Filtration Systems for GDI Engines	FT017; Eric Kurtz, Ford: Fuel Properties to Enable Lifted-Flame Combustion	ES161; Anthony Burrell, ANL: Voltage Fade, an ABR Deep Dive Project: Status and Outcomes
12:30 PM	LUNCH	LUNCH	LUNCH
1:45 PM	ACE061; Michael Ruth, Cummins: ATP-LD; Cummins Next Generation Tier 2 Bin 2 Diesel Engine	FT006; Magnus Sjoberg, SNL: Advanced Lean- Burn DI Spark Ignition Fuels Research	Hydrogen Infrastructure; Morry Markowitz, FCHEA: H2 USA
2:15 PM	ACE065; Corey Weaver, Ford Motor Company: Advanced Gasoline Turbocharged Direct Injection (GTDI) Engine Development	FT007; Todd Toops, ORNL: Fuel Effects on Emissions Control Technologies	
2:45 PM	ACE066; Hakan Yilmaz, Robert Bosch: Advanced Combustion Concepts - Enabling Systems and Solutions (ACCESS) for High Efficiency Light Duty Vehicles	FT018; Ali Erdemir, ANL: Advanced Nanolubricants for Improved Energy Efficiency and Reduced Emissions in Engines	Hydrogen Infrastructure; Hanno Butsch, NOW GmbH: Hydrogen Refueling Station Infrastructure in Germany and Europe
3:15 PM	ACE062; Ron Reese, Chrysler: A MultiAir / MultiFuel Approach to Enhancing Engine System Efficiency	FT019; Victor Wong, MIT: Lubricant Formulations to Enhance Engine Efficiency in Modern Internal Combustion Engines	Hydrogen Infrastructure; Shigenobu Watanabe, NEDO: Hydrogen Infrastructure in Japan
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	ACE079; Rangachary Mukundan, LANL: Robust Nitrogen Oxide/Ammonia Sensors for Vehicle On-board Emissions Control	FT020; Robert Zdrodowski, Ford: Development of Modified Polyalkylene Glycol High VI High Fuel Efficient Lubricant for Light-Duty Vehicle Applications	
4:45 PM	ACE091; Claus Schnabel, Robert Bosch: Intake Air Oxygen Sensor	FT014; Jun Qu, ORNL: Ionic Liquids as Anti- Wear Additives for Next-Generation Low- Viscosity Fuel-Efficient Engine Lubricants	
5:15 PM	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		
5:45 PM			



Please mute all cell phones and other portable devices.

Thursday, June 19 - Oral Presentations

Calan		June 19 - Oral Presentatio	
Salon	Delaware B	Washington 1	Washington 3
8:30 AM	LM082; Xin Sun, PNNL: Development of 3rd Generation Advanced High Strength Steels (AHSS) with an Integrated Experimental and Simulation Approach	VSS058; Oyelayo Ajayi, ANL: Development of High Power Density Driveline for Vehicles	TI035; Damian Breen, Bay Area Air Quality Management District: California Fleets and Workplace Alternative Fuels Project
9:00 AM	LM073; Thomas Watkins, ORNL: Residual Stress of Bimetallic Joints and Characterization	Improved Aerodynamics	TI036; Sam Spofforth, Clean Fuels Ohio: Clean Fuels Ohio's Fast Track to AFV Adoption in Ohio
9:30 AM	LM079; Rich Davies, PNNL: Enhanced Room- Temperature Formability in High-Strength Aluminum Alloys through Pulse-Pressure Forming	ARRAVT072; Robin Mackie, Smith Electric Vehicles: Smith Electric Vehicles: Advanced Vehicle Electrification + Transportation Sector Electrification	TI037; Ron Flowers, Greater Washington Region Clean Cities Coalition: Advancing Alternative Fuel Markets Adoption and Growth
10:00 AM	LM078; Xin Sun, PNNL: Aluminum Formability Extension through Superior Blank Processing		TI038; Sandy Fazeli, National Association of State Energy Officials: Unlocking Private Sector Financing for Alternative Fuel Vehicles and Fueling Infrastructure
10:30 AM	BREAK	BREAK	BREAK
11:00 AM	ACE080; Vladimir Jovovic, GenTherm: Thermoelectric Waste Heat Recovery Program for Passenger Vehicles	ARRAVT083; Jeff Cox, SCAQMD: SCAQMD:Plug-In Hybrid Electric Medium-Duty Commercial Fleet Demonstration and Evaluation	TI039; Robert Graff, Delaware Valley Regional Planning Commission: Pennsylvania Partnership for Promoting Natural Gas Vehicles
11:30 AM	ACE081; Jim Salvador, General Motors: Cost- Competitive Advanced Thermoelectric Generators for Direct Conversion of Vehicle Waste Heat into Useful Electrical Power	VSS115; Brian Choe, SCAQMD: Zero- Emission Heavy-Duty Drayage Truck Demonstration	TI040; Adriane Jaynes, Tulsa Area Clean Cities: I-40 Collaboration
12:00 PM	ACE082; Martin Cleary, GMZ Energy Inc.: Nanostructured High-Temperature Bulk Thermoelectric Energy Conversion for Efficient Automotive Waste Heat Recovery	VSS116; Allison Carr, Houston-Galvelston Area Council: Hydrogen Fuel-Cell Electric Hybrid Truck & Zero Emission Delivery Vehicle Deployment	TI041; Lisa Thurstin, American Lung Association of the Upper Midwest: Accelerating Alternatives for Minnesota Drivers
12:30 PM	LUNCH	LUNCH	LUNCH
		Lonon	
1:45 PM	PM051; Hong Wang, ORNL: Design Optimization of Piezoceramic Multilayer Actuators for Heavy Duty Diesel Engine Fuel Injectors	VSS048; Zhiming Gao, ORNL: Advanced HD Engine Systems and Emissions Control Modeling and Analysis	TI042; Kelly Gilbert, Metropolitan Energy Center, Inc.: Mid-America Collaborative for Alternative Fuels Implementation
1:45 PM 2:15 PM	PM051; Hong Wang, ORNL: Design Optimization of Piezoceramic Multilayer Actuators for Heavy Duty Diesel Engine Fuel Injectors PM052; Jun Qu, ORNL: Friction Reduction through Surface Modification (Agreement ID:23284) Project ID:18518	VSS048; Zhiming Gao, ORNL: Advanced HD Engine Systems and Emissions Control	Ti042; Kelly Gilbert, Metropolitan Energy Center, Inc.: Mid-America Collaborative for Alternative Fuels Implementation Ti043; Josh Rego, Clean Energy Coalition: Michigan Fuel Forward
	PM051; Hong Wang, ORNL: Design Optimization of Piezoceramic Multilayer Actuators for Heavy Duty Diesel Engine Fuel Injectors PM052; Jun Qu, ORNL: Friction Reduction through Surface Modification (Agreement ID:23284) Project ID:18518 PM048; Glenn Grant, PNNL: Tailored Materials for Improved Internal Combustion Engine Efficiency	VSS048; Zhiming Gao, ORNL: Advanced HD Engine Systems and Emissions Control Modeling and Analysis VSS133; Dean Deter, ORNL: Cummins MD & HD Accessory Hybridization CRADA ARRAVT080; Derek Rotz, DTNA: Class 8 Truck Freight Efficiency Improvement Project	TI042; Kelly Gilbert, Metropolitan Energy Center, Inc.: Mid-America Collaborative for Alternative Fuels Implementation TI043; Josh Rego, Clean Energy Coalition: Michigan Fuel Forward TI044; Ted Barnes, Institute of Gas Technology: Lake Michigan Corridor Alternative Fuel Implementation Initiative
2:15 PM 2:45 PM 3:15 PM	PM051; Hong Wang, ORNL: Design Optimization of Piezoceramic Multilayer Actuators for Heavy Duty Diesel Engine Fuel Injectors PM052; Jun Qu, ORNL: Friction Reduction through Surface Modification (Agreement ID:23284) Project ID:18518 PM048; Glenn Grant, PNNL: Tailored Materials for Improved Internal Combustion Engine	VSS048; Zhiming Gao, ORNL: Advanced HD Engine Systems and Emissions Control Modeling and Analysis VSS133; Dean Deter, ORNL: Cummins MD & HD Accessory Hybridization CRADA ARRAVT080; Derek Rotz, DTNA: Class 8	Ti042; Kelly Gilbert, Metropolitan Energy Center, Inc.: Mid-America Collaborative for Alternative Fuels Implementation Ti043; Josh Rego, Clean Energy Coalition: Michigan Fuel Forward Ti044; Ted Barnes, Institute of Gas Technology: Lake Michigan Corridor
2:15 PM 2:45 PM	PM051; Hong Wang, ORNL: Design Optimization of Piezoceramic Multilayer Actuators for Heavy Duty Diesel Engine Fuel Injectors PM052; Jun Qu, ORNL: Friction Reduction through Surface Modification (Agreement ID:23284) Project ID:18518 PM048; Glenn Grant, PNNL: Tailored Materials for Improved Internal Combustion Engine Efficiency PM053; G. Muralidharan, ORNL: High Temperature Materials for High Efficiency	VSS048; Zhiming Gao, ORNL: Advanced HD Engine Systems and Emissions Control Modeling and Analysis VSS133; Dean Deter, ORNL: Cummins MD & HD Accessory Hybridization CRADA ARRAVT080; Derek Rotz, DTNA: Class 8 Truck Freight Efficiency Improvement Project ARRAVT081; Ken Damon, Peterbilt: Technology and System Level Demonstration of Highly Efficient and Clean, Diesel Powered	TI042; Kelly Gilbert, Metropolitan Energy Center, Inc.: Mid-America Collaborative for Alternative Fuels Implementation TI043; Josh Rego, Clean Energy Coalition: Michigan Fuel Forward TI044; Ted Barnes, Institute of Gas Technology: Lake Michigan Corridor Alternative Fuel Implementation Initiative TI045; Jennifer Puser, Greater Portland Council of Governments: Removing Barriers, Implementing Policies and Advancing
2:15 PM 2:45 PM 3:15 PM 3:45 PM 4:15 PM	PM051; Hong Wang, ORNL: Design Optimization of Piezoceramic Multilayer Actuators for Heavy Duty Diesel Engine Fuel Injectors PM052; Jun Qu, ORNL: Friction Reduction through Surface Modification (Agreement ID:23284) Project ID:18518 PM048; Glenn Grant, PNNL: Tailored Materials for Improved Internal Combustion Engine Efficiency PM053; G. Muralidharan, ORNL: High Temperature Materials for High Efficiency Engines BREAK PM004; Glenn Grant, PNNL: Novel Manufacturing Technologies for High Power Induction and Permanent Magnet Electric Motors	VSS048; Zhiming Gao, ORNL: Advanced HD Engine Systems and Emissions Control Modeling and Analysis VSS133; Dean Deter, ORNL: Cummins MD & HD Accessory Hybridization CRADA ARRAVT080; Derek Rotz, DTNA: Class 8 Truck Freight Efficiency Improvement Project ARRAVT081; Ken Damon, Peterbilt: Technology and System Level Demonstration of Highly Efficient and Clean, Diesel Powered Class 8 Trucks BREAK VSS081; Pascal Amar, Volvo Trucks: Development and Demonstration of a Fuel-Efficient Class 8 Highway Vehicle	TI042; Kelly Gilbert, Metropolitan Energy Center, Inc.: Mid-America Collaborative for Alternative Fuels Implementation TI043; Josh Rego, Clean Energy Coalition: Michigan Fuel Forward TI044; Ted Barnes, Institute of Gas Technology: Lake Michigan Corridor Alternative Fuel Implementation Initiative TI045; Jennifer Puser, Greater Portland Council of Governments: Removing Barriers, Implementing Policies and Advancing Alternative Fuels Markets in New England BREAK TI046; Maria Redmond, Wisconsin Department of Administration: Alternative Fuel Market Development Program - Forwarding Wisconsin's Fuel Choice
2:15 PM 2:45 PM 3:15 PM 3:45 PM 4:15 PM	PM051; Hong Wang, ORNL: Design Optimization of Piezoceramic Multilayer Actuators for Heavy Duty Diesel Engine Fuel Injectors PM052; Jun Qu, ORNL: Friction Reduction through Surface Modification (Agreement ID:23284) Project ID:18518 PM048; Glenn Grant, PNNL: Tailored Materials for Improved Internal Combustion Engine Efficiency PM053; G. Muralidharan, ORNL: High Temperature Materials for High Efficiency Engines BREAK PM004; Glenn Grant, PNNL: Novel Manufacturing Technologies for High Power Induction and Permanent Magnet Electric Motors PM054; Andrew Wereszczak, ORNL: Enabling Materials for High Temperature Power Electronics (Agreement ID:26461) Project	VSS048; Zhiming Gao, ORNL: Advanced HD Engine Systems and Emissions Control Modeling and Analysis VSS133; Dean Deter, ORNL: Cummins MD & HD Accessory Hybridization CRADA ARRAVT080; Derek Rotz, DTNA: Class 8 Truck Freight Efficiency Improvement Project ARRAVT081; Ken Damon, Peterbilt: Technology and System Level Demonstration of Highly Efficient and Clean, Diesel Powered Class 8 Trucks BREAK VSS081; Pascal Amar, Volvo Trucks: Development and Demonstration of a Fuel-Efficient Class 8 Highway Vehicle VSS075; Jason Lustbader, NREL: CoolCab Test and Evaluation and CoolCalc HVAC Tool Development	Ti042; Kelly Gilbert, Metropolitan Energy Center, Inc.: Mid-America Collaborative for Alternative Fuels Implementation Ti043; Josh Rego, Clean Energy Coalition: Michigan Fuel Forward Ti044; Ted Barnes, Institute of Gas Technology: Lake Michigan Corridor Alternative Fuel Implementation Initiative Ti045; Jennifer Puser, Greater Portland Council of Governments: Removing Barriers, Implementing Policies and Advancing Alternative Fuels Markets in New England BREAK Ti046; Maria Redmond, Wisconsin Department of Administration: Alternative Fuel Market Development Program - Forwarding Wisconsin's Fuel Choice Ti047; Cabell Hodge, Colorado Energy Office: Refuel Colorado
2:15 PM 2:45 PM 3:15 PM 3:45 PM 4:15 PM	PM051; Hong Wang, ORNL: Design Optimization of Piezoceramic Multilayer Actuators for Heavy Duty Diesel Engine Fuel Injectors PM052; Jun Qu, ORNL: Friction Reduction through Surface Modification (Agreement ID:23284) Project ID:18518 PM048; Glenn Grant, PNNL: Tailored Materials for Improved Internal Combustion Engine Efficiency PM053; G. Muralidharan, ORNL: High Temperature Materials for High Efficiency Engines BREAK PM004; Glenn Grant, PNNL: Novel Manufacturing Technologies for High Power Induction and Permanent Magnet Electric Motors PM054; Andrew Wereszczak, ORNL: Enabling Materials for High Temperature Power	VSS048; Zhiming Gao, ORNL: Advanced HD Engine Systems and Emissions Control Modeling and Analysis VSS133; Dean Deter, ORNL: Cummins MD & HD Accessory Hybridization CRADA ARRAVT080; Derek Rotz, DTNA: Class 8 Truck Freight Efficiency Improvement Project ARRAVT081; Ken Damon, Peterbilt: Technology and System Level Demonstration of Highly Efficient and Clean, Diesel Powered Class 8 Trucks BREAK VSS081; Pascal Amar, Volvo Trucks: Development and Demonstration of a Fuel-Efficient Class 8 Highway Vehicle VSS075; Jason Lustbader, NREL: CoolCab Test and Evaluation and CoolCalc HVAC Tool	TI042; Kelly Gilbert, Metropolitan Energy Center, Inc.: Mid-America Collaborative for Alternative Fuels Implementation TI043; Josh Rego, Clean Energy Coalition: Michigan Fuel Forward TI044; Ted Barnes, Institute of Gas Technology: Lake Michigan Corridor Alternative Fuel Implementation Initiative TI045; Jennifer Puser, Greater Portland Council of Governments: Removing Barriers, Implementing Policies and Advancing Alternative Fuels Markets in New England BREAK TI046; Maria Redmond, Wisconsin Department of Administration: Alternative Fuel Market Development Program - Forwarding Wisconsin's Fuel Choice TI047; Cabell Hodge, Colorado Energy Office:



Please mute all cell phones and other portable devices.

Thursday, June 19 - Oral Presentations

		June 19 - Oral Presentation	
Salon	Roosevelt 1	Washington 5	Virginia ABC
8:30 AM	PD096; Hector Colon-Mercado, SRNL: Electrolyzer Component Development for the HyS Thermochemical Cycle		FC020; Karren More, ORNL: Characterization of Fuel Cell Materials
9:00 AM	PD081; Ivan Ermanoski, SNL: Solar Hydrogen Production with a Metal Oxide Based Thermochemical Cycle		FC021; David Jacobson, NIST: Neutron Imaging Study of the Water Transport in Operating Fuel Cells
9:30 AM	PD028; Chris Muhich, U of Colorado: Solarthermal Redox-based Water Splitting Cycles	VSS087; Rajeev Verma, Eaton: Look-Ahead Driver Feedback and Powertrain Management	FC017; Rajesh Ahluwalia, ANL: Fuel Cells Systems Analysis
10:00 AM	PD095; Pin-Ching Maness, NREL: Improving Cyanobacterial O2-Tolerance using CBS Hydrogenase for H2 Production	VSS086; Kanok Boriboonsomsin, University of California at Riverside: Next Generation Environmentally Friendly Driving Feedback Systems Research and Development	FC083; Genevieve Saur, NREL: Enlarging Potential National Penetration for Stationary Fuel Cells Through System Design Optimization
10:30 AM	BREAK	BREAK	BREAK
11:00 AM	PD037; Maria Ghirardi, NREL: Biological Systems for Hydrogen Photoproduction	VSS083; Timothy Donley, Cooper Tire: Improving Vehicle Fuel Efficiency Through Tire Design, Materials, and Reduced Weight	FC018; Brian James, Strategic Analysis, Inc.: Fuel Cell Transportation Cost Analysis
11:30 AM	PD036; Tasios Melis, UC Berkeley: Maximizing Light Utilization Efficiency and Hydrogen Production in Microalgal Cultures	VSS084; Peter Votruba-Drzal, PPG: A Materials Approach to Fuel-Efficient Tires	FC097; Fritz Eubanks, Battelle: Stationary and Emerging Market Fuel Cell System Cost AnalysisAuxiliary Power Units
12:00 PM	PD038; Pin-Ching Maness, NREL: Fermentation and Electrohydrogenic Approaches to Hydrogen Production	VSS085; Robert Benedict, Goodyear: System for Automatically Maintaining Pressure in a Commercial Truck Tire	FC098; Max Wei, LBNL: A Total Cost of Ownership Model for Design and Manufacturing Optimization of Fuel Cells in Stationary and Emerging Market Applications
12:30 PM	LUNCH	LUNCH	LUNCH
1:45 PM	BES008; Javier Concepcion, Brookhaven National Laboratory: Catalyzed Water Oxidation by Solar Irradiation of Band-Gap- Modified Semiconductors	MT007; Russ Keller, SCRA: Landfill Gas–to–Hydrogen	TV020; Larry Moulthrop, Proton OnSite: Validation of an Advanced High Pressure PEM Electrolyzer and Composite Hydrogen Storage, with Data Reporting, for SunHydro Stations
2:15 PM	BES009; Dmitry Polyansky, Brookhaven National Laboratory: Catalyzed Water Oxidation by Solar Irradiation of Band-Gap- Modified Semiconductors	MT006; Kriston Brooks, PNNL: Fuel Cell Combined Heat and Power Commercial Demonstration	TV024; David Blekhman, CSULA: CSULA Hydrogen Refueling Facility Performance Evaluation and Optimization
2:45 PM	BES010; Frances Houle, Lawrence Berkeley National Laboratory: Joint Center for Artificial Photosynthesis	MT008; Mitch Ewan, Hawaii Natural Energy Institute: Hydrogen Energy Systems as a Grid Management Tool	TV025; Michael Tieu, GTI: Performance Evaluation of Delivered Hydrogen Fueling Stations
3:15 PM	BES011; Ian Sharp, Lawrence Berkeley National Laboratory: Joint Center for Artificial Photosynthesis	MT011; Jim Petrecky, Plug Power: Ground Support Equipment Demonstration	TV026; Jennifer Kurtz, NREL: Hydrogen Fueling Infrastructure Research and Station Technology
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	BES012; John Gregoire, Caltech: Joint Center for Artificial Photosynthesis	MT013; Joe Pratt, SNL: Maritime Fuel Cell Generator Project	TV019; Kevin Harrison, NREL: Hydrogen Component Validation
4:45 PM		MT014; Kriston Brooks, PNNL: Fuel Cell Based Auxiliary Power Unit for Refrigerated Trucks	TV008; Leslie Eudy, NREL: Fuel Cell Bus Evaluations
5:15 PM		H2RA005; Norm Bessette, Acumentrics: Demonstration of SOFC Generator Fueled by Propane to Provide Electrical Power to Real World Applications	TV016; Genevieve Saur, NREL: Stationary Fuel Cell Evaluation
5:45 PM		H2RA007; Jim Petrecky, Plug Power: Accelerating Acceptance of Fuel Cell Backup	TV021; Jennifer Kurtz, NREL: Forklift and Backup Power Data Collection and Analysis
		Power Systems	



Please mute all cell phones and other portable devices.

Thursday, June 19 - Poster Presentations

Exhibit Halls A and B, 6:30-8:30 PM

Hydrogen Production and Delivery

PD056; Liwei Xu, Midwest Optoelectronics, LLC: Critical Research for Cost-Effective Photoelectrochemical Production of Hydrogen

BES016; Scott Saavedra, University of Arizona: Center for Interface Science: Solar-Electric Materials

BES017; Katherine Brown, National Renewable Energy Laboratory: Photobiological and Photobiohybrid Solar Fuels: Photobiohybrid Project

BES018; Tom Jaramillo, Stanford University: Center on Nanostructuring for Efficient Energy Conversion

BES019; Anne Jones, Arizona State: Center for Bio-Inspired Solar Fuel Production

BES020; Charles McCrory, Caltech: Joint Center for Artificial Photosynthesis

BES021; Matthew Shanner, Caltech: Joint Center for Artificial Photosynthesis

BES022; David Tiede, ANL: Argonne-Northwestern Solar Energy Research Center

BES023; Adam Weber, Lawrence Berkeley National Laboratory: Joint Center for Artificial Photosynthesis

AMO1; Bruce Logan, Penn State: Bioelectrochemical Integration of Waste Heat Recovery, Waste-to-Energy Conversion, and Waste-to-Chemical Conversion with Industrial Gas and Chemical Manufacturing Processes

PD104; Girish Srinivas, TDA Research, Inc.: Hydrogen Generation for Refineries

PD105; W. Shannan O'Shaughnessy, GVD: Flexible Barrier Coatings For Harsh Environments

PD092; Salvador Aceves, LLNL: Rapid High Pressure LH2 Refueling for Maximum Range and Dormancy

H2 Student Design:Washington State University; Low-Cost, Modular, Drop-in Hydrogen Fueling Station

Propulsion Materials

PM058; Dileep Singh, ANL: Alloy Development for High-Performance Cast Crankshafts

PM059; Rich Huff, Caterpillar: Development of Advanced High Strength Cast Alloys for Heavy Duty Engines

PM060; Mei Li, Ford: ICME Guided Development of Advanced Cast Aluminum Alloys For Automotive Engine Applications

PM061; Mike Walker, General Motors: Computational design and development of a new, lightweight cast alloy for advanced cylinder heads in high-efficiency,

PM062; Amit Shyam, ORNL: High Performance Cast Aluminum Alloys for Next Generation Passenger Vehicle Engines 2012 FOA 648 Topic 3a

PM063; G. Muralidharan, ORNL: High Strength, Light-Weight Engines for Heavy Duty Trucks

PM044; Stan Pitman, PNNL: High Temperature Aluminum Alloys (Agreement ID:24034) Project ID:18518

PM064; H. Wang, ORNL: International Energy Agency (IEA IA-AMT) International Characterization Methods (Agreement ID:26462)

Technology Validation

TV001; Jennifer Kurtz, NREL: Fuel Cell Electric Vehicle Evaluation

TV017; Sam Sprik, NREL: Hydrogen Station Data Collection and Analysis

TV018; Rhonda Staudt, H2Pump: Hydrogen Recycling System Evaluation and Data Collection

TV023; Michael Kashuba, CARB: Newport Beach Hydrogen Station Key Performance Indicators

TV027; Bill Elrick, CaFCP: H2-FCEV Commercialization: Facilitating collaboration, obtaining real world expertise, and developing new analysis tools

Fuel & Lubricant Technologies

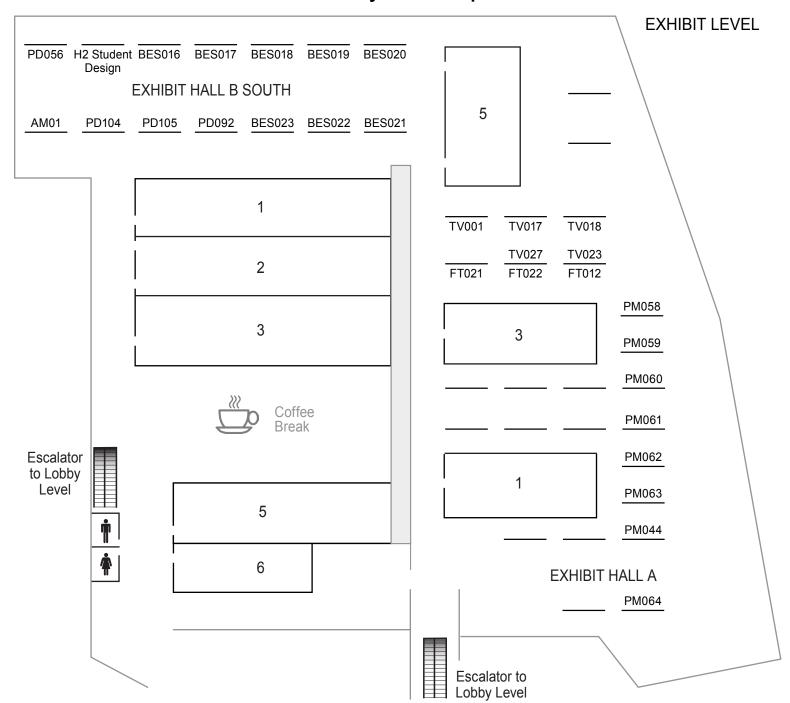
FT021; Jun Qu, ORNL: Can hard coatings and lubricant anti-wear additives work together?

FT022; Sibendu Som, ANL: CFD Simulations and Experiments to Determine the Feasibility of Various Alternate Fuels for Compression Ignition Engine Application

FT012; George Fenske, ANL: Engine Friction Reduction Technologies

Please mute all cell phones and other portable devices.

Thursday Poster Map



Friday, June 20 - Oral Presentations

Salon	Delaware A	Delaware B	Washington 1
8:30 AM	ACE086; Edward Keating, General Motors LLC: The Application of High Energy Ignition and Boosting/Mixing Technology to Increase Fuel Economy in Spark Ignition Gasoline Engines by Increasing EGR Dilution Capability	PM049; Krishna Kamasamudram, Cummins: Catalyst Characterization (Agreement ID:9130) Project ID:18519	VSS137; Jim Francfort, INL: EV Project Data & Analytic Results
9:00 AM	ACE087; Mike Bunce, MAHLE Powertrain LLC : Next-generation Ultra-Lean Burn Powertrain	PM010; Thomas Watkins, ORNL: Durability of Diesel Particulate Filters (Agreement ID:10461) Project ID:18519	VSS138; Melissa Lapsa, ORNL: EV Project: Solar-Assisted Charging Demo
9:30 AM	ACE092; Charles Mendler, Envera LLC: High Efficiency VCR Engine with Variable Valve Actuation and New Supercharging Technology	PM055; Michael Lance, ORNL: Biofuel Impacts on Aftertreatment Devices (Agreement ID:26463) Project ID:18519	ARRAVT067; Abdullah Bazzi, Chrysler LLC: Advancing Transportation through Vehicle Electrification – Ram 1500 PHEV
10:00 AM	ACE088; Swami Nathan Subramanian, Eaton Corporation : Heavy Duty Roots Expander for Waste Heat Energy Recovery	PM009; Michael Lance, ORNL: Materials Issues Associated with EGR Systems (Agreement ID:18571) Project ID:18518	
10:30 AM	BREAK	BREAK	BREAK
11:00 AM	ACE057; David Koeberlein, Cummins: Cummins SuperTruck Program Technology and System Level Demonstration of Highly Efficient and Clean, Diesel Powered Class 8 Trucks	PM056; Larry Allard, ORNL: Characterization of Catalysts Microstructures	
11:30 AM	ACE058; Sandeep Singh, Detroit Diesel: SuperTruck Program: Engine Project Review	PM057; David J. Singh, ORNL: Applied ICME for New Propulsion Materials (Agreement ID:26391) Project ID:18865	
12:00 PM	ACE060; John Gibble, Volvo: Volvo SuperTruck - Powertrain Technologies for Efficiency Improvement		

Salon		Washington 3	
8:30 AM		TI049; Andrew Johnston, City of Austin: Central Texas Fuel Independence Project	
9:00 AM		TI050; Allison Carr, Houston-Galveston Council: Alternative Fueling Diversity in the Energy Capital of the World	
9:30 AM		TI051; Wendy Morgan, Center for Transportation and the Environment, Inc.: Southeast Regional Alternative Fuels Market Initiatives Program	
10:00 AM		TI052; Colleen Ketties, University of Central Florida: Advancing Alternative Fuel Markets in Florida	
10:30 AM	BREAK	BREAK	BREAK
11:00 AM		TI053; Anne Tazewell, North Carolina State University: Alternative Fuels Implementation Team (AFIT) for North Carolina	
11:30 AM		TI054; Pamela Burns, North Central Texas Council of Governments: Moving North Texas Forward by Addressing Alternative Fuel Barriers	
12:00 PM		TI055; Ted Sears, NREL: Alternative Fuel	



Please mute all cell phones and other portable devices.