

## News Release

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## Argonne transportation experts to present research at 23<sup>rd</sup> electric vehicle meeting

ARGONNE, Ill. (Nov. 30, 2007) – Researchers from Argonne National Laboratory's Transportation Technology R&D Center (TTRDC) will present 11 papers during the Electric Vehicle Symposium-23 that will be held in Anaheim, Calif., from Dec. 2-5.

Argonne is the lead U.S. Department of Energy laboratory for modeling, simulation, benchmarking and testing for plug-in hybrid electric vehicles. Some of the presentations will address how to determine PHEVs' ability to reduce gas consumption; and how battery and electric machine components can impact a vehicle's energy consumption.

"These papers represent leading efforts to objectively evaluate PHEVs and PHEV technologies and their potential impact on energy use," said Larry Johnson, director of the TTRDC. "Argonne possesses world-class expertise and state-of-the-art tools and facilities and is a definitive source for comprehensive dynamometer data on PHEVs."

The papers that will be presented at EVS-23 and their Argonne authors are:

- "Advanced lithium-ion batteries for plug-in hybrid-electric vehicles," by Paul Nelson, Khalil Amine, Aymeric Rousseau and EnerDel Corp.'s Hiroyuki Yomoto.
- "In-situ torque measurements in hybrid electric vehicles powertrains," by Theodore Bohn, Michael Duoba and Richard Carlson.
- "Sorting through the many total-energy-cycle pathways possible with early plug-in hybrids," by Linda Gaines, Andrew Burnham, Aymeric Rousseau and Danilo Santini.
- "Plug-in hybrid electric vehicle control strategy parameter optimization," by Aymeric Rousseau, Sylvain Pagerit and Tennessee Tech University's David Gao.
- "PHEV 'all-electric range' and fuel economy in charge-sustaining mode for low SOC operation of the JCS VL41 M Li-ion battery using battery HIL," by Neeraj Shidore, Theodore Bohn, Michael Duoba, Henning Lohse-Busch, and Philip Sharer.
- "Plug-in hybrid-electric vehicles: How does one determine their potential for reducing U.S. oil dependence?" by Anant Vyas, Danilo Santini, Michael Duoba, and the Electric Power Research Institute's Mark Alexander.

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## ARGONNE EXPERTS – ADD ONE

- "PHEV hymotion Prius model validation and control improvements," by Qiandong Cao, Sylvain Pagerit, Richard Carlson, Aymeric Rousseau.
- "Where is the early market for PHEVs?" by Danilo Santini.
- "On-road evaluation of advanced hybrid electric vehicles over a wide range of ambient temperatures," by Richard Carlson, Michael Duoba, Danny Bocci and Henning Lohse-Busch.
- "Impact of component size on plug-in hybrid vehicles energy consumption using global optimization," by Dominik Karbowski, Chris Haliburton and Aymeric Rousseau.
- "Test procedures and benchmarking: Blended-type and EV-capable plug-in hybrid electric vehicles," by Michael Duoba, Richard Carlson and Argonne co-op student Ji Wu.

Each of the papers will be available at <u>www.transportation.anl.gov</u> shortly after they have been presented.

This year's symposium will provide information on how electric vehicles can help business, reduce petroleum use and air pollution; highlight the latest technological advancements and trends for electric vehicles; and illustrate how transit authorities are taking the lead in adopting cost-effective electric-drive technologies into their fleets.

Funding for TTRDC comes from the DOE Office of Energy Efficiency and Renewable Energy's Vehicle Technologies Program.

With employees from more than 60 nations, Argonne National Laboratory brings the world's brightest scientists and engineers together to find exciting and creative new solutions to pressing national problems in science and technology. The nation's first national laboratory, Argonne conducts leading-edge basic and applied scientific research in virtually every scientific discipline. Argonne researchers work closely with researchers from hundreds of companies, universities, and federal, state and municipal agencies to help them solve their specific problems, advance America's scientific leadership and prepare the nation for a better future. Argonne is managed by UChicago Argonne, LLC for the U.S. Department of Energy's Office of Science.

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