

# 'Atoms to Products: Nanostructured Novel Battery'

May 9 2005

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Victor Lifton, lead researcher for mPhase Technologies Inc., will present a paper today, "Atoms to products - a nanostructured novel battery," at the Nanotech 2005, Anaheim Marriott & Convention Center. Dr. Lifton will report on the company's progress in fabricating a new generation of smart batteries that are based on nanotechnology. mPhase was recently awarded the 2005 Frost & Sullivan Excellence in Technology Innovation Award for its leadership in battery design.

The project is based on a joint program with Bell Labs, the R&D arm of Lucent Technologies. The novel battery is based on a Bell Labs discovery that liquid droplets of electrolyte will stay in a dormant state atop microscopic structures called "nanograss" until stimulated to flow, thereby triggering a reaction producing electric current. Future batteries based on this technology have the potential to deliver far longer shelf life and better storage capacity than existing battery technology. Potential initial applications for this technology may include defense, industrial, healthcare, and consumer electronics. mPhase is also targeting the nanobattery for use in a technically-improved, lighter weight battery designs.

A white paper on the topic co-authored by Dr. Lifton and Steve Simon, mPhase EVP for R&D, is available for download from the mPhase website at [www.mphasetech.com/nanobattery\\_architecture.pdf](http://www.mphasetech.com/nanobattery_architecture.pdf)

Dr. Lifton joined mPhase Technologies Inc. in June, 2004, following positions at Kulite Semiconductor Products, Inc., as a Manager of

Semiconductor Processing and Lucent Bell Labs, as a Member of the Technical Staff in MEMS Fabrication Research Lab. He has a PhD in Materials Science from Stevens Institute of Technology where he won the Morton M. Traum Award for Excellence.

Sponsored by the Nano Science and Technology Institute, Nanotech 2005 is the world's largest and oldest nanotechnology conference of its kind. The five-day conference and trade show will profile new companies and technologies and encourage scientific and discussion among nanotech industry leaders.

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