

## mPhase will Report on Nanobattery

February 14 2005

---

mPhase Technologies Inc. announced that its lead researcher, Victor Lifton, will present a paper, "Atoms to products - a nanostructured novel battery," at the Nano Science and Technology Institute Conference and Trade Show in Anaheim, California (May 8-12, 2005).

Dr. Lifton will report on the progress of the mPhase plan to fabricate nanotech-based batteries, which can generate electric current. 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.

"We are especially excited about the ability to use various battery chemistries and take advantage of the special characteristics of Nanograss," Lifton said.

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.

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 Ph.D in Materials Science from Stevens Institute of Technology where he won the Morton M. Traum Award for Excellence.

Dr. Lifton has designed and fabricated various optical MEMS microdevices and conducted electrochemical studies of porous Si and SiC as novel sensing materials and process control of semiconductor-based sensors for pressure transducers, process development for novel sensor architectures using SOI and thick paste technology, and novel materials and packaging methods for next generation sensors.

mPhase and Lucent announced an agreement in March 2004, under which mPhase plans to commercialize the nanobattery under license from Lucent. mPhase projects its nanobattery to be commercially available in 12-18 months, and plans to produce the technology packaged in various configurations. A primary development goal is to create a battery that could have a shelf life lasting decades, yet can be activated instantaneously.

Citation: mPhase will Report on Nanobattery (2005, February 14) retrieved 6 May 2024 from <https://phys.org/news/2005-02-mphase-nanobattery.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.