California State University, Sacramento

Department of Physics & Astronomy Fall 2004

Physics Colloquium Series

Reformed Methanol Micro Fuel Cell Systems for Portable Power Applications

Fuel cells have gained renewed interest for applications in portable power since the energy is stored as fuel rather than as an integral part of the power source, as is the case with batteries. While miniaturized fuel cells have been demonstrated for the low power regime (1-20 Watts), numerous issues still must be resolved prior to deployment for applications as a replacement for batteries. A reformed methanol fuel cell system will be described that offers inherent advantages resulting from the large surface-to-volume ratios and high level of integration. These technologies enable material and fuel flexibility, while providing a manufacturable, modular fuel cell approach. These approaches will be discussed, along with experimental results from proton exchange membrane thin-film fuel cells and catalytic fuel processor.

Dr. Jeffrey Morse

Lawrence Livermore National Laboratories

Thursday, October 14, 2004
4:00-5:20 PM MND 1015

OPEN & FREE TO ALL STUDENTS & FACULTY