

Thursday, August 7, 2008

OU hosts Nanoscale Conference on Aug. 18

Oakland University will host the 2008 Nanoscale Science and Engineering Conference on Aug. 18. The conference will establish a platform for researchers and entrepreneurs, especially in the fields of nanoscale science and engineering, as well as structural DNA, to exchange ideas and promote multidisciplinary, inter-institutional partnerships. Conference participants will acquire knowledge about the most current research and development in these fields and to identify collaborators in other institutions.

The one-day conference features keynote presentations by Mark Sims, president of Nanorex, and Jill Powell, technical sale manager of CSM Instruments.

Sims will present "NanoEngineer-1: A CAD-Based Multi-scale Engineering Program for Structural DNA Nanotechnology." The presentation will provide an overview of NanoEngineer-1, the first CAD.CAM program for the design and synthesis of complex DNA nanostructures that spontaneously self-assemble in a single-pot reaction. Computer-aided design and computer-aided manufacturing software for structural DNA nanotechnology is being developed by Nanorex to enable scientists to model, visualize, analyze and ultimately build hybrid materials with near atomic resolution at the nanometer scale. Nano-electronics, nano-mechanical devices and new "super materials" are among the potential applications. Sims will also discuss how such devices are designed, analyzed and fabricated with the aid of computational tools.

Powell will present information on the newest innovations in mechanical analysis methods for the optimization of biomaterials for device design and manufacturing. Nano- and micro-scale testing devices include scratch and indentation methods for the analysis of hardness, elastic properties, creep and fatigue behavior, coating adhesion, scratch resistance and wear behavior. Using unique capabilities offered by CSM Instruments, major biomedical device companies are using these tools for cutting-edge research and development work, as well as for important quality control measure and standardization efforts.

The conference will also include a sponsor exhibition, poster presentations and technical presentations on nanosystems, nanostructure, nanobiotechnology and nanotechnology. The conference will be held on Monday, Aug. 18 from 7 a.m. to 5 p.m. in the Oakland Center.

The Nanoscale Science and Engineering Conference sponsors include Oakland University, Oakland County, Octillion, Nanorex, Rigaku, CSM Instruments, Lurie Nanofabrication Facility at the University of Michigan and Tinytechjobs.

For more information on the conference and registration information, visit the [Nanoscale Science and Engineering Conference](#) Web site.

SUMMARY

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