

Biologically Inspired Material Design

**Join us for a special one day program to highlight
biologically inspired material technologies**

**Organized by [echobio](#) in conjunction with the
[Society for Experimental Mechanics](#)**

*Technical presentations will cover:
functional engineering materials, polymer gels,
biomimetic ceramics and natural composites,
novel micro-electronic materials, and more.
A panel discussion will give participants a chance
to highlight their research to program managers
from ONR, DARPA, NASA, AFOSR and the USDA.
This is an unprecedented event and should not be missed
by anyone interested in developing biologically inspired materials!*

**** June 5, 2000 in Orlando, FL ****
Sign up at the [SEM web page](#),
or contact Ken Perry at [echobio](#)
for more information.

[View the full program abstracts online now!](#)

Program Overview

- Session #1: Keynote Presentations
 - "Biomimetics: Lessons from Biology Towards Functional Engineering Materials"
Mehmet Sarikaya, A. Bleloch, H. Fong, W. N. Mercer, and J. M. Sopp
 - "Layered biomimetic ceramics and composites"
Paul Cavert
- Session #2: Technical Presentations I
 - "Natural Polymers and Composites: Some Challenges and Opportunities"
Randal Shogren
 - "Constitutive Response of Active Polymer Gels"
S. P. Marra, K.T. Ramesh & A. S. Douglas
 - "Evolutionarily Selected Peptides for Biomolecular Recognition of Magnetic and Semiconductor Materials"
Sandra Whaley, Christine Flynn, Erin Gooch and Angela M. Belcher
 - "The Nucleation and Crystallization of Hard Sphere Systems"
Frank van Swol

- Session #3: Biomimicry Panel Discussion
 - Janine Benyus, author
 - Keith Ward, ONR
 - Randal Shogren, USDA
 - Alan Rudolph, DARPA (tentative)
 - Roger Crouch, NASA (tentative)
 - Bob Cohn, AFOSR (tentative)
- Session #4: Technical Presentations II
 - "Ordering Silica Structures via Self Organization and Catalytic Biopolymers"
J.N.Cha, K. Shimizu, Y. Zhou, G.D. Stucky, D.E.Morse, T.J.Deming
 - "Flexible Wings for Micro Aerial Vehicles (MAVs)"
Peter Ifju, David Jenkins, Scott Ettinger, Luis Martinez
 - "New Nanomechanical Characterization Instrumentation for Biomedical Materials:
Introducing Hysitron TriboScope and TriboIndenter"
D. Yang, S. Downs, L. Kuhn, O. Warren, A. Daugela, S. Jensen and T. Wyrobek
 - "Colorimetric Biosensors Based On Enzymes And Receptors"
Marc Alper
 - "Reflexive Material Technology: biologically optimized porous materials"
Hugh Bruck and Charles R. Owens

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