

2008-2009 Graduate Seminar Series

**The Department of
Mechanical Engineering – Engineering Mechanics**

Proudly Presents

**Professor John Simonsen
Oregon State University**

John Simonsen received a Ph.D. in Physical Chemistry from the University of Colorado in 1975. He joined the faculty of the Oregon State University (OSU) Department of Forest Products in 1990, following a decade of working in small and medium-sized businesses in the chemical industry, including Simonsen Chemical Company, which formulated and sold wood preservatives to the wood treating industry.



Dr. Simonsen's research interests include cellulose nanocrystals and polymer composites, including wood-polymer composites. He is presently a Professor in the Department of Wood Science and Engineering, the OSU Materials Science Program and holds graduate status in the Department of Chemical Engineering. He is also a member of ONAMI (the Oregon Nanoscience and Microtechnologies Institute) and the OSU Materials Institute.

Thursday, Mar. 5, 2009 3:00 – 4:00 p.m. Room 112, ME-EM Bldg.

Frontiers of Nanotechnology in Bio-based Materials *

A brief introduction to nanotechnology will be presented followed by a description of cellulose nanocrystals (CNXLs) and our research investigating applications for this interesting bio-based nanoparticle. These will include CNXLs grafted with DNA to form nanoscale patterns on surfaces, CNXL electro-optic effects, polymer nanocomposites and aerogels.

*J. Choi, S. Noorani, S. Paralikar, A. Mangalam, M. Taylor, J. Kelley and J. Simonsen

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