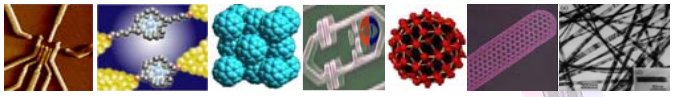


NTNU Nanomechanical Laboratory

World Leader in Nanomechanical Test Instruments
Hysitron Incorporated

Opening Seminar

NTNU Auditorium VE1 (1st floor), "Perleporten", Richard Birkelands vei 2B
Tuesday, 29th of August 2006

NTNU Nanomechanical Laboratory equipped with a state-of-the-art Hysitron TriboIndenter will be opened on the 29th of August. Based on ultra-sensitive depth-sensing technique the TriboIndenter provides unique capabilities for studying the mechanical properties of nanomaterials, biomaterials, nano-devices, surfaces as well as conventional materials at nanometer scale. It offers a quantitative tool for exploring materials microstructure-property relationships. Static and dynamic nanomechanical properties can be accurately measured both at high and low temperatures.

In order to celebrate the opening of the laboratory, a whole day seminar will be arranged. Academic and industrial experts from Norway and abroad have been invited to present recent results and in-house experiences in this new field – nanoindentation technology and nanomechanics.

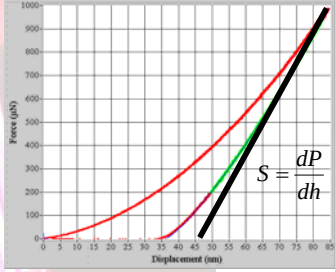
You are invited to join us for the Opening Seminar!

Zhiliang Zhang
Professor, NTNU Nanomechanical Lab, Dept. of Structural Engineering
(zhiliang.zhang@ntnu.no, tel: 0047-73592530)

Registration: Please register for the seminar with PhD student Ms Jianying He (jianying.he@ntnu.no, tel: 0047-93804711) no later than 23 August 2006

Programme

Tuesday, 29th of August 2006



NTNU Nanomechanical Lab (Ground floor), Richard Birkelands vei 2B

09:00 **Opening of NTNU Nanomechanical Lab**
Rector Prof. Torbjørn Digernes

Lab Tour and Presentation
Prof. Zhiliang Zhang, NTNU Nanomechical Lab

Auditorium VE1 (1st floor) – Chairman Prof. Zhiliang Zhang

09:45 **Coffee**

10:00 **Welcome**
Prof. Ingvald Strømmen, Dean of Faculty of Engineering Science and Technology, NTNU

10:05 **Overview of NTNU Nanolab as a Whole**
Prof. Thomas Tybell, NTNU NanoLab

10:20 **NANOMAT Current Status and New Strategy for Nanoscience and Nanotechnology**
Dr. Dag Høvik, The Research Council of Norway

10:40 **Impact of Nanomechanical Testing on the Future of Materials Research and Development**
Mr. Thomas Wyrobek, President of Hysitron Inc., USA.

11:15 **High Temperature Nanoindentation for Fundamental Studies**
Prof. Christopher A. Schuh, Department of Materials Science and Engineering, MIT, USA

11:45 **Non-Dislocation Origin of the Incipient Plasticity**
Prof. Roman Nowak, Nordic Hysitron Laboratory, Helsinki University of Technology, Finland

12:15 **Lunch**

13:15 **Mechanical Properties and Size Effect in Nanoscale**
Prof. Lijie Qiao, Beijing University of Science and Technology, China.

13:45 **Viscoelastic/Plastic FE Simulation of Nanoindentation Mechanical Properties of Bone**
Prof. Timothy Ovaert, Dept. of Aerospace and Mechanical Engineering, University of Notre Dame, USA

14:15 **Coffee**

14:30 **Nanotechnology and Cement-Based Materials**
Dr. Paul Acker, LAFARGE, France

15:00 **Study of Hydrogen Embrittlement by in situ Electrochemical Nanoindentation**
Mr. Afrooz Barnoush, Dept. of Material Science, Saarland University, Germany.

15:30 **Nanomechanical Characterization of Polymer Particles**
Dr. Helge Kristiansen, Conpart, Norway

16:00 **Closing Remarks**
Prof. Svein Remseth, Dean of Dept of Structural Engineering, NTNU

NTNU Nanomech
NTNU - NanoLab

Dept of Structural Engineering
Faculty of Engineering Science and Technology
NTNU Strategic Area Materials

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