

## Center for Advanced Materials Characterization in Oregon (CAMCOR) Presents

### Advanced Techniques in EPMA Seminar

Focus on both instrumental methods and software algorithms for solving real world analytical problems for science and industry in EPMA in a variety of samples, conditions and geometries. Hands on workshop and lab to explore new ideas for extending EPMA for all users.

**August 7th (Saturday), 2010**

University of Oregon, Eugene, Oregon

### **Preliminary Outline of Program**

A one day hands on workshop exploring problems and solutions for difficult and/or complex analytical situations using the latest analytical methods, instrumental techniques and software algorithms. Workshop will be held in the new Integrated Science Complex, Lorry I. Lokey Laboratory.

#### **Instruments:**

Cameca SX50 with Bruker SDD

Cameca SX100 with Thermo SDD

FEI Quanta with Thermo SDD and HKL EBSD

#### **Software:**

Quantitative microanalysis (bulk, particles, thin films)

Quantitative x-ray mapping (WDS and spectrum imaging)

Software modeling: Casino, WinXray, Penelope, and DTSA II

#### **Presentations:**

Paul Carpenter (Washington University) "Advanced Quantitative Analysis"

John Fournelle (University of Wisconsin) "Why is it sometimes so hard to get good EPMA analyses (good totals AND stoichiometry) for {some} garnets?"

Michael Jercinovic and Julien Allaz (University of Massachusetts) "MultiPoint Backgrounds for Improved Trace Element Accuracy: Application to U, Th and Pb measurement in monazite"

Dale Newbury and Nicholas Ritchie (NIST) "Quantitative SDD-EDS Microanalysis at WDS Precision: What Are the Possibilities?"

#### **Lab Instrument/Computer Demonstrations and Exercises:**

Julian Allaz, Mike Jercinovic and John Donovan - Multi-Point Background Acquisition and Analysis

#### **Tours:**

FEI Helios dual beam

Zeiss Ultra 55 (Nabity Lithography)

FEI Titan Analytical TEM

FEI Tecnai Cryo TEM

IonTof TOF-SIMS

Thermo EscaLab XPS

Waters Qtof

Philips Auger

Bruker, Rigaku and Scintag XRDs

For more information contact:

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