# Advanced Instrumental Techniques and Software Algorithms in EPMA Workshop Center for Advanced Materials Characterization in Oregon (CAMCOR) Presents

Focus on both instrumental methods and software algorithms for improving accuracy in EPMA in a variety of difficult samples, conditions and geometries. Hands on workshop to explore new ideas for extending EPMA for advanced and intermediate users.

### September 11, 12, 13 (Tuesday, Wednesday, Thursday), 2007

University of Oregon, Eugene, Oregon

# **Preliminary Program**

# **Morning 1:**

### 9:00 AM John Donovan (University of Oregon):

Volatile elements, beam sensitivity, Trace sensitivity, accuracy (spectral overlaps/blank corrections)

10:00 - 10:30 Coffee break

### 10:30 AM Paul Carpenter (Washington University, St. Louis):

Instrument Calibration, PHA, Deadtime, Standards (accuracy/precision), MACs, matrix corrections

### Afternoon 1:

Discussion and Hands On Empirical Testing on EPMA instruments

### **Morning 2:**

### 9:00 AM Dale Newbury (National Institute of Standards & Technology):

Update on Silicon Drift Detector Hardware and Software Processing (Lispix)

10:00 – 10:30 Coffee break

#### 10:30 AM Ed Vicenzi (Smithsonian Institution)

Keenan-Kotula multivariate methods in Compass for x-ray spectrum imaging phase analysis

### Afternoon 2:

Discussion and Hands On Empirical Testing on EPMA instruments

## **Morning 3**

### 9:00 AM John Fournelle (University of Wisconsin, Madison):

Peak shift in silicates, Secondary fluorescence (examples from penepma/penelope)

10:00 - 10:30 Coffee break

#### 10:30 AM Mike Jercinovic (University of Masssachusetts):

Analysis of Trace Elements in Complex Samples (e.g., U, Pb, Th in monazite)

### Afternoon 3:

Discussion and Hands On Empirical Testing on EPMA/SEM instruments

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