

Cryo-TEM: Equipment, Methods and Applications. Lecture and Discussion

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When: Thursday July 10, 2008; 10 am to noon.

Where: B75 Amundson Hall

For: Those interested in Cryo-TEM and the microstructure of liquid-containing materials -- including: faculty, graduate students, post docs, and staff newly interested in using the technique or already using it.

Background: Cryo-TEM is a powerful technique to directly visualize at high resolution the micro- and nano-structure of materials containing water and other solvents. This includes biological samples as well as soft solids, complex fluids and colloids.



Normally, such samples are banned from an EM lab, or need elaborate preparation that completely changes the sample. But with Cryo-TEM, all the water within a sample is retained throughout the examination, and special care is taken to avoid crossing phase boundaries, which is particularly important for colloidal systems like surfactants, polymers and proteins.

The workshop will begin with a talk by Prof. Bellare that addresses the equipment, methods and applications of the technique as well as the effort investment necessary from new users. This presentation will be followed by an open discussion session to address questions that potential new users may have as well as problems of current users.

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