

Workshop 1 — Imaging

Monday, April 28, 2003 (afternoon)

Tuesday, April 29, 2003 (morning & afternoon)

Biological Applications of X-ray Microscopy and Imaging

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Advances in x-ray sources and optics have allowed novel study of biomaterials including cells and microorganisms at sub-optical resolution. Using fluorescent, spectrometric, and imaging approaches, the elemental and chemical state of trace metals, as well as of major constituents, can be studied quantitatively at high sensitivity and with minimum specimen preparation. This workshop, hosted jointly by the APS and the Northwestern University Medical Center, is the second to discuss current capabilities of x-ray microscopy and to identify novel applications. Key contemporary microscopy and imaging techniques will be highlighted, followed by x-ray applications in microbiology, cellular differentiation, and cancer research. Ample time will be allowed for open discussion with feedback from attendees.