

☐ Talk ☒ Poster

Tender X-ray Imaging and Spectroscopy at the X-ray Fluorescence Microprobe (XFM) beamline at NSLS-II

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X-ray Fluorescence Microprobe (XFM) at NSLS-II is a multi-modal tender and hard X-ray fluorescence microscope that enables XRF imaging and spectroscopy at the micron scale across a wide energy range covering P to Mo K-edges (2.1 – 21 keV). XFM is optimized for the characterization of elemental abundances and chemical speciation in heterogeneous earth and environmental materials. X-ray microprobes are ideal for characterizing the speciation, transport and reactions of trace elements in biotic and abiotic components. Such information is crucial in understanding element cycling in the environment, mobility and toxicity of contaminants, and mechanisms of nutrient uptake and partitioning in plants and other organisms. Practical applications of tender X-ray fluorescence microscopy in the Soil and Environmental Sciences will be shown.