

Introduction to Studies of Metals in Intact Tissues using X-ray Absorption Spectroscopy

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One of the major strengths of X-ray absorption spectroscopy (XAS) is its ability to probe chemical form in any sample without any chemical pre-treatment. The low concentrations of metals and metalloids in biological tissues mean that in the past XAS has been difficult to apply to these samples. Recent developments in synchrotron beamline and detector technology mean that XAS of intact biological samples is now achievable. The technique of XAS will be introduced and different applications to intact biological tissues will be presented and discussed.