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X-ray standing wave spectroscopy of metalloproteins

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Variable-period x-ray standing wave (XSW) spectroscopy has been shown to be a practical probe for studying metalloproteins such as cytochrome c. The oxygen evolving complex (OEC) involved in photosynthesis is a metallo-protein of great interest on which the application of the XSW technique is potentially useful. In this feasibility study, preliminary results on OEC samples deposited on Au mirrors are discussed. First XSW measurements from the SSRL grazing-incidence setup are presented.