

Abstract Submitted  
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**Multiphoton dissociation of H<sub>2</sub>S by intense x-ray pulses from the Linac Coherent Light Source FEL<sup>1</sup>** BRENDAN MURPHY, LI FANG, MATTHIAS HOENER, WMU, EDWIN KUKK, TU, ELLIOT KANTER, ANL, JOHN BOZEK, SLAC, NORA BERRAH, WMU — We will report on sequential multiphoton ionization of H<sub>2</sub>S by intense pulses of x-rays from the LCLS free electron laser. Following L-shell excitation, fragmentation of the molecule is observed by Auger electron, photoelectron, and ion time-of-flight spectroscopy. Intensity dependent features in these spectra shed light on the dynamics of the dissociation process.

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