

Abstract Submitted  
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**Differential hard x-ray imaging of HED/ICF plasmas using Compton scattering**<sup>1</sup> FREDERIC HARTEMANN, LLNL — Tunable, narrow-bandwidth, picosecond x-ray pulses can be produced via Compton scattering. Such pulses can be used for high-contrast K-edge imaging of specific ions in a plasma. In addition, the K-edge shift due to ionization and screening could also be studied using such x-rays. Details of a Compton scattering x-ray source will be presented, along with methods for spectral resolution and imaging, and information retrieval of the ion states and plasma conditions.

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Frederic Hartemann  
LLNL

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