

Abstract Submitted
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Measurements of the betatron spectrum around the Kedge of thin foils KEEGAN BEHM, TONY ZHAO, University of Michigan, JONATHON WOODS, JASON COLE, Imperial College of London, ANATOLY MAKSIMCHUK, VICTOR YANOVSKY, ALEXANDER THOMAS, KARL KRUSHELNICK, University of Michigan, STUART MANGLES, Imperial College of London, CENTER FOR ULTRAFast OPTICS TEAM, IMPERIAL COLLEGE OF LONDON TEAM — Presented here are single shot and integrated Xray spectroscopy measurements of the betatron radiation spectrum produced from a laser wakefield accelerator (LWFA) using both single photon counting and different crystals. We measure critical energy and total flux of the betatron spectrum for various parameters in addition to absorption of the spectrum around the Kedge of different thin metal foils with high spectral resolution using curved and flat HOPG and Mica crystals.

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