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On using K-edge filters to enhance resolution of hard x-ray spectroscopy[1] NINO PEREIRA, Ecopulse, Inc, BRUCE WEBER, DAVID PHIPPS, JOE SCHUMER, JOHN SEELY, Naval Research Laboratory — Near-coincidences of x-ray fluorescence lines of one material with the K-edge of a near-higher atomic number material can sometimes be used to measure small changes in the energy of the line, from an atom's ionization or other effects. We have measured such changes in the K-line radiation from iridium with a lutetium filter, and ytterbium with a thulium filter, using the Plasma- Filled Rod Pinch at the Naval Research Laboratory. This paper discusses these results, and the analysis done to date toward the possible use of such a K-edge filter for NIF hohlraums.

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