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Spectral measurements of asymmetrically-irradiated capsule backlighters PAUL KEITER, R. PAUL DRAKE, University of Michigan — Capsule backlighters provide a quasi-continuum x-ray spectrum over a wide range of photon energies. [Hansen et al, 2008] Typically lasers irradiate the capsule backlighter symmetrically, however, in complex experimental geometries, this is not always possible. In recent experiments we irradiated capsule backlighters asymmetrically and measured the x-ray spectrum from multiple directions. We will present time-integrated spectra over the photon energy range of ~ 2 -13 keV and time-resolved spectra over the photon energy range of ~ 2 -3 keV. We will also discuss the use of these backlighters in future absorption spectroscopy experiments. This work is supported by the U.S. Department of Energy, through the NNSA-DS and SC-OFES Joint Program in High-Energy-Density Laboratory Plasmas, grant number DE-NA0001840, and the National Laser User Facility Program, grant number DE-NA0002032, and through the Laboratory for Laser Energetics, University of Rochester by the NNSA/OICF under Cooperative Agreement No. DE-FC52-08NA28302.

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