

Abstract Submitted
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Fast Ion Loss Measurements from JET Plasmas¹ F.E. CECIL, Colorado School of Mines, S. BÄUMEL, M. REICH, A. WERNER, Max-Planck-IPP/EURATOM Association, D.S. DARROW, K.W. HILL, G.J. KRAMER, PPPL, V. KIPTILY, UKAEA Fusion/EURATOM Association, JET-EFDA COLLABORATION — Two fast ion loss diagnostics for JET have been commissioned recently. These are a poloidal array of thin foil Faraday cups and a scintillator-based probe. The former measures the loss at multiple locations, with crude energy resolution. The scintillator probe gives the loss flux versus energy and pitch angle, typically sampled at 20 Hz. Initial observations from the Faraday cup array show a loss of what are thought to be MeV ICH tail ions across a wide variety of conditions. Bursts of this loss are seen at sawtooth crashes, and Alfvén mode activity is observed to enhance the loss substantially. Initial data from the scintillator probe show the loss of DD charged fusion products (3 MeV p & 1 MeV T) plus the apparent ICH tail ions over a much wider range of energies. The loss during ICH is localized in pitch angle.

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