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Burst of Fast Ion Loss in DIII-D Quiescent H-mode Plasmas,* Y.B. Zhu, W.W. Heidbrink, *UC Irvine*, W.P. West, K.H. Burrell, *General Atomics* – High frequency bursts are observed in the fast ion loss collectors during DIII-D counter-injection quiescent H-mode plasmas. The typical frequency lies in hundreds kHz range, which is much higher than the Edge Harmonic Oscillation (EHO). The occurrence of the burst is usually correlated with the presence of the EHO but not always. Comparative studies show that the burst is more sensitive to the perpendicular than tangential injected beams. The amplitude of the bursting can be actively controlled by several factors, such as the plasma outer gap to the vessel midplane, current ramping in internal error field correction coils, and electron cyclotron resonance heating. Co-injection quiescent H-mode does not show any such kind of burst. Neutron flux and fast ion deuterium alpha (FIDA) measurements data will also be presented.

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