Abstract Submitted
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AE activity during transient beta drops in high poloidal beta discharges[1] J. HUANG, X.Z. GONG, Q.L. REN, S.Y. DING, J.P. QIAN, C.K. PAN, G.Q. LI, ASIPP, W.W. HEIDBRINK, UCI, A.M. GAROFALO, General Atomics, J. MCCLENAGHAN, ORNL — Enhanced AE activity has been observed during transient beta drops in high poloidal beta DIII-D discharges with internal transport barriers (ITBs). These drops in beta are believed to be caused by n=1 external kink modes. In some discharges, beta recovers within ∼200 ms but, in others, beta stays suppressed. A typical discharge has β_P ∼3, q_{min} ∼ 3, and q_{95} ∼ 12. The drop in beta affects both fast ions and thermal particles, and a drop is also observed in the density and rotation. The enhanced AE activity follows the instability that causes the beta drop, is largest at the lowest beta, and subsides as beta recovers. MHD stability analysis is planned. A database study of the plasma conditions associated with the collapse will be also presented.

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