

Abstract Submitted
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Modulated Lower Hybrid Current Drive Suppression of MHD $m=2$ modes on HT-7 J.S. MAO, H. WANG, J. ZHAO, Y.W. SUN, B.J. DING, J.R. LUO, Institute of Plasma Physics, Chinese Academy of Sciences, Hefei, Anhui, 230031, P.E. PHILLIPS, Fusion Research Center, Univ. of Texas, Austin TX 78735 — A crucial issue for the extension of advanced tokamak scenarios to long pulse operation is the avoidance of Magneto-Hydrodynamics (MHD) activity. Active Modulation of Lower Hybrid Current Drive (LHCD) was used successfully to suppress MHD activity on HT-7, a superconducting tokamak. A feedback system was used which activated modulation only when MHD activity reach a predetermined level so as to optimize the current drive through out the discharge. The LHCD modulation was varied in power and frequency, with the frequency always being less than the resistive skin time (100ms). Optimal MHD suppression was achieved when modulating LHW power $> 200kW$, $\Delta\theta = 120^\circ$ modulation, and frequency of $50Hz$. Details of the MHD suppression will be discussed in this poster.

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