

Abstract Submitted  
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**Testing Pedestal Models for Joint Research Target on DIII-D**<sup>1</sup> R.J. GROEBNER, P.B. SNYDER, T.H. OSBORNE, S.P. SMITH, A.W. LEONARD, B.D. BRAY, T.M. DETERLY, C. LIU, R.L. BOIVIN, J.S. DEGRASSIE, R. PRATER, General Atomics, D. ELDON, UCSD, T.L. RHODES, L. ZENG, J.C. HILLESHEIM, UCLA, Z. YAN, G.R. MCKEE, U Wisc-Madison — As part of the FY2011 DOE Joint Research Target on Pedestal Physics, tests are being performed on DIII-D for gyrokinetic modes that have been proposed as physics mechanisms for controlling the H-mode pedestal structure. These modes include kinetic ballooning modes (KBM), candidates for limiting the total pedestal pressure gradient, ion temperature gradient modes (ITGM), candidates for limiting the  $T_i$  gradient at the pedestal top and electron temperature gradient modes (ETGM), candidates for limiting the  $T_e$  gradient both in the pedestal and on top of the pedestal. The theoretical control parameters for these modes are  $\alpha_{MHD}$  for KBM,  $\eta_e$  for ETGM and  $\eta_i$  for ITGM. Experiments are being performed in DIII-D to determine if measured values of these parameters are close to the theoretical threshold values for the linear onset of these modes.

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Rich Groebner  
General Atomics

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