

Abstract Submitted
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Use of Impurity Injection for Improved Performance in the DIII-D and JET Tokamaks¹ G.L. JACKSON, T.E. EVANS, C.M. GREENFIELD, A.W. HYATT, G.R. MCKEE, M. MURAKAMI, C.L. RETTIG, G.M. STAEBLER, DIII-D National Fusion Facility, R.V. BUDNY, PPPL, G. MADDISON, UKAEA, Culham, J. RAPP, M. TOKAR, B. UNTERBERG, TEXTOR-team, and staff involved in EFDA-JET workprogram and operation — Injection of non-intrinsic impurities, *e.g.*, neon, has produced enhancements in the energy confinement time, $\tau_{>E}$, and the neutron yield, S_{nn} , in the DIII-D and JET tokamaks. Comparing effects of impurity seeding in both tokamaks is important in establishing scaling relations extrapolating these scenarios to larger devices such as fusion reactors. Values of H_{89P} up to 2.0 with simultaneous reduction of turbulence in DIII-D and 1.7 in JET were obtained in diverted neon seeded discharges with an L-mode edge with significant radiation ($P_{rad}^{tot}/P_{in} = 0.5-0.8$). We will discuss similarities and differences between DIII-D and JET discharges including gyrokinetic simulations of turbulent growth rates. Effects of impurity injection in inner wall limited DIII-D discharges will also be discussed.

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- Prefer Oral Session
 Prefer Poster Session

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Special instructions: Assign to JET session

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