

Abstract Submitted
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Sorting Category: (Experimental)

Comparison of NSTX H-modes with Conventional Aspect Ratio Tokamak H-modes,* C.E. Bush, R. Maingi, Y.-K.M. Peng, ORNL, S.M. Kaye, R.E. Bell, M.G. Bell, E.D. Fredrickson, D.A. Gates, D. Johnson, R. Kaita, H. Kugel, B.P. LeBlanc, J.E. Menard, D. Mueller, M. Ono, L. Roquemore, V.A. Soukhanovskii, E.J. Synakowski, G. Taylor, S.J. Zweben, PPPL, S. Kubota, UCLA, R.J. Maqueda, LANL, S.A. Sabbagh, Columbia and D. Stutman, Johns Hopkins – The H-mode is expected to be useful in achieving the performance goals of NSTX. H-modes were first obtained [1] in NSTX a year ago and more detailed parametric studies are under way. Comparisons will be made for the transition, the high confinement phase, ELMs, and the termination. Initial transitions required power levels above those predicted by the international H-mode database. The Ip window for H-mode access on NSTX appears to be narrow. As in conventional tokamaks, the power required to sustain NSTX H-modes after the transition can be much lower than the threshold power. Turbulence suppression is observed in both cases. Comparisons of ELM characteristics will also be presented.
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[1] R. Maingi, et al., submitted to Phys. Rev. Letts., 5/01..

- Prefer Oral Session
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