

Abstract Submitted  
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**Plasma Interaction With the Outboard Main Chamber Wall in DIII-D**<sup>1</sup> D.L. RUDAKOV, G.Y. ANTAR, J.A. BOEDO, E.M. HOLLMANN, R.A. MOYER, G.R. TYNAN, J. YU, UCSD, N.H. BROOKS, W.P. WEST, C.P.C. WONG, GA, M.E. FENSTERMACHER, M. GROTH, C.J. LASNIER, LLNL, R. BASTASZ, J.G. WATKINS, J. WHALEY, SNL — Plasma interaction with the outboard main chamber wall in DIII-D is studied using Langmuir probes, single point and imaging line emission diagnostics. In L-mode, plasma-wall interaction increases with the discharge density. In H-mode ELMs cause strong wall interaction that changes character with increasing discharge density. In low-density high-power H-modes ELM filaments propagate all the way to the outboard wall with little density dissipation. In high-density H-mode ELM filaments decay as they propagate through the SOL and their relative contribution to the wall fluxes versus inter-ELM periods decreases. A decreasing gap between the separatrix and the outer wall causes an increase in the plasma-wall interaction. A capability to expose material samples in far outboard SOL for in-situ erosion/deposition studies has been recently added.

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