

Abstract Submitted
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Long-Term Monitoring of DIII-D Wall Conditions Following a Boronization¹ W.P. WEST, A.W. HYATT, G.L. JACKSON, M.R. WADE, General Atomics, M. GROTH, LLNL — A standard discharge has been developed to monitor long term changes in impurity and particle wall sources on DIII-D. This discharge is run routinely as the second discharge on most operation days. The discharge starts with a L-mode phase held at a fixed line average density of $0.27 \times 10^{20} \text{ m}^{-3}$ ($n_e/n_{GW} \sim 0.25$) followed by a slow ramp of injected beam power providing a measure of the L-H transition threshold. After a long ELM-free period ELMs begin, then the power is increased to 4 MW and a long period of stationary ELMing H-mode operation results. Over these periods the core and edge line emission is recorded with vuv spectroscopy, along with gas fueling and core particle content. These and other measurements are stored in a database and examined for long-term trends relative to major wall conditioning activities such as boronization. Preliminary results indicate that the effects of boronization do not degrade over a period of several weeks of standard operation, roughly 2800 plasma-seconds.

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