

Abstract Submitted
for the DPP00 Meeting of
The American Physical Society

Sorting Category: 6.6.2 (Experimental)

Impurity Behavior in the Steady-State ELM-Free H-Mode on DIII-D¹ W.P. WEST, K.H. BURRELL, N.H. BROOKS, General Atomics, M.R. WADE, ORNL, D.G. WHYTE, UCSD — A new mode of operation with H-mode confinement quality, no ELMs, and steady ion and impurity density has been discovered on DIII-D during experiments with the neutral heating beams injected counter to the direction of plasma current.² We present spectroscopic studies which demonstrate that intrinsic impurity content reaches a stable state with low to modest impurity content. In a discharge which transitions from an ELMing phase to an ELM-free H-mode phase, charge exchange recombination spectroscopy indicates that the carbon content is lower in the ELM free phase. Likewise, the line intensities of high ionization states of nickel are lower. Neutron production is seen to increase, while the radiated power fraction remains low. Analysis of visible bremsstrahlung data will also be presented

¹Supported by US DOE Contract Nos. DE-AC03-99ER54463, DE-AC05-00OR22725, and DE-FG03-95ER54294.

²K.H. Burrell, et al., this conference.

Prefer Oral Session
 Prefer Poster Session

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Special instructions: 8th poster in Transport Core Session (before Jernigan, after Mandrekas)

Date submitted: July 12, 2000

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