Abstract Submitted for the DPP00 Meeting of The American Physical Society

Sorting Category: 10.0.0 (Computation/Simulation)

Numerical Comparisons of Two Different Hydrocarbon Dissociation Models With Experimental Measurements¹ D.M. O'BRIEN, Virginia Polytechnic Institute and State Univ., T.E. EVANS, General Atomics, D.K. FINKENTHAL, Palomar College, D.A. ALMAN, U. Illinois, B. HUNT, Rose-Hulman Institute of Technology — Hydrocarbons produced by chemical sputtering from the plasma facing components in tokamaks may contribute to the overall carbon content of the core plasma. In order to assess the relative importance of molecular hydrocarbons as a core penetrating carbon source, two dissociation models have been implemented in the DIII-D Monte Carlo Impurity transport code. The two models have been compared to each other and to CD band emission in a linear plasma device during methane gas puff experiments. Similarities and differences between the two dissociation models will be discussed. Results from the model comparisons with each other and with the experimental measurements will be described.

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	Prefer Oral Session
Х	Prefer Poster Session

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