

Abstract Submitted  
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**Results From the Upgraded Porous Plug Injection System for Studies of Hydrocarbon Dissociation and Transport in DIII-D**<sup>1</sup> A.G. MCLEAN, J.W. DAVIS, Y. MU, P.C. STANGEBY, U. Toronto, S.L. ALLEN, R. ELLIS, M.E. FENSTERMACHER, M. GROTH, C.J. LASNIER, LLNL, B.D. BRAY, N.H. BROOKS, T.W. PETRIE, W.P. WEST, C.P.C. WONG, GA, D.G. WHYTE, MIT, J.A. BOEDO, E.M. HOLLMANN, D. NISHIJIMA, D.L. RUDAKOV, UCSD, R.J. COLCHIN, R.C. ISLER, ORNL, J.G. WATKINS, SNL, S. BREZINSEK, M. JAKUBOWSKI, A. KRATER, Juelich — Calibrated spectroscopic measurements of dissociation fragments resulting from hydrocarbon influx in a tokamak divertor have been taken with the use of the Mk II Porous Plug Injector (PPI) in DIII-D. The PPI was upgraded to include a small orifice flow restrictor for more precise gas flow control, achieving flow rates corresponding to sputtering yields of 0.5%-2% in attached and detached divertor plasmas. Results and analysis of digital video, and medium and high resolution spectroscopic data collected are presented and compared with those of the Mk I PPI and similar experiments at JET, TEXTOR, and ASDEX.

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