Abstract Submitted
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C^{+6} impurity profiles in MST plasmas[1] SANTHOSH T.A. KUMAR, D.J. DEN HARTOG, R.M. MAGEE, G. FIKSEL, Department of Physics, University of Wisconsin-Madison, USA, D. CRAIG, Wheaton College, Wheaton, IL, USA — Temporally-resolved radial profiles of Doppler broadened C^{+6} emission (343.4 nm) have been measured on the MST reversed-field pinch using Charge-Exchange Recombination Spectroscopy. Experimental observations indicate a hollow C^{+6} density profile for both standard and improved confinement plasmas, throughout the duration of the diagnostic neutral beam pulse, even though the C^{+6} ion temperature profile peaks at the center. Measurements are made on deuterium plasmas with density $\sim 1 \times 10^{19}$ m^{-3} and plasma current $\sim$ 400 kA. Experimental results are presented.

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