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Comparison of 2-D Profiles of CIV VUV Radiation from the Upper and Lower Divertors in DIII-D¹ N.W. JALUFKA, Hampton U., M.E. FENSTERMACHER, G.D. PORTER, N.S. WOLF, LLNL, A.W. LEONARD, T.W. PETRIE, GA — 2-D poloidal profiles of VUV CIV radiation (155 nm) were obtained at high triangularity (δ) for the lower open divertor and the upper baffled divertor in DIII-D using data from tangentially viewing camera systems. The data show that for both attached and detached plasmas the emission from VUV CIV occurs at nearly the same locations as that from visible CIII (456 nm). This is consistent with earlier observations in the lower divertor for low δ , lower single-null discharges. These CIV emission profiles also agree qualitatively with tomographic reconstructions of total radiated power. Comparisons of the CIV profiles from the open vs. baffled divertors at fixed toroidal field direction (ion ∇B drift down) show significant differences in both attached and detached divertor operation. Comparisons of profiles from the baffled divertor for normal and reversed B_T suggest that B-field dependent particle drifts may be responsible for some of these differences. Measured profiles will also be compared to profiles generated by the UEDGE fluid code.

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