

Abstract Submitted
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Sorting Category: 5.1.1.2 (Experimental)

Poloidal Profile of CIV Emission in the DIII-D Divertor During PDD Operation¹ N. JALUFKA, Q. BONEY, Hampton University, M.E. FENSTERMACHER, Lawrence Livermore National Laboratory, A.W. LEONARD, General Atomics, R.J. COLCHIN, Oak Ridge National Laboratory — The VUV-TTV² has been used to study the spatial distribution of CIV emission in the DIII-D divertor during Partially Detached Divertor (PDD) operation. This device records images of the 155 nm radiation from C³⁺ using a tangential view. The 3-D images are inverted assuming toroidal symmetry to produce 2-D profiles in a poloidal plane. The CIV emission in H-mode before gas injection is localized in the inner SOL at the X-point height. It moves to the outer SOL above the X-point during PDD. Finally, near the H-L density limit, the radiation moves into the closed flux region. The radiation during the PDD appears in a single peak which is fairly stable in time for most discharges. For some discharges however, a double peak is observed near the X-point. Evolution of these 2-D profiles will be compared with bolometer reconstructions and time histories of relevant discharge parameters.

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²D.G. Nilson *et al.*, Rev. Sci. Instrum. **70** (1999) 738-741.

Prefer Oral Session
 Prefer Poster Session

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Special instructions: DIII-D Poster Session 2, immediately following RC Isler

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