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Comparison of 2D Visible Emission Profiles from Detached Open and Closed Divertors in DIII-D¹ M.E. FENSTERMACHER, W.H. MEYER, Lawrence Livermore National Laboratory, A.W. LEONARD, T.W. PETRIE, General Atomics, L.C. INGESSON, EFDA-JET — The 2D profiles of visible carbon and deuterium emission in the open geometry of the DIII-D lower divertor have contributed to our understanding of divertor detachment [M.E. Fenstermacher, PoP, 1761, 1997, and PPCF, A345, 1999, and EPS Maastricht, 1999]. The profiles are obtained using tomographic reconstruction techniques applied to images from tangentially viewing video (TTV) cameras [M.E. Fenstermacher, Rev. Sci. Instrum. **974**, 1997]. Two new TTV cameras are now operational with identical views of the tightly baffled upper divertor in DIII-D. Simultaneous images of multiple charge states of carbon and multiple Balmer emission lines of deuterium are obtained for power balance studies and to generate 2D profiles of recombination and ionization dominated zones in the divertor. Evolution of the 2D emission of carbon and deuterium in the closed divertor during ELMing H-mode plasmas with density ramps to detachment will be compared with profiles from identically prepared open divertor discharges.

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- Prefer Oral Session
 Prefer Poster Session

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Special instructions: Divertor, immediately following NS Wolf

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