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Carbon Ion Flow Measurements in DIII-D Divertors Using Coherence Imaging Spectroscopy¹ S.L. ALLEN, W.H. MEYER, G.D. PORTER, LLNL, J. HOWARD, The Austrian N.U. — New, single-crystal imaging interferometers along with improved relay optics have been installed in the upper and lower DIII-D divertors. These provide improved images of the Doppler shift and thereby flow of CIII (465 nm) ions. An improved in-situ calibration technique has been implemented, providing zero velocity reference images and measured spectrometer phase vs wavelength. The temperature resolution of the system has been greatly improved, resulting in a stable wavelength calibration. Image intensified cameras have made possible measurements of flow during ELMS and in the non-active divertor. Streamlined data analysis has been used to look for flow trends. In general, we see flow in opposite directions on the inner and outer scrape-off layers in the divertor.

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