

Abstract Submitted  
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**Measurement of electron density profiles in the C-2 merging FRC experiment** BIHE DENG, Tri Alpha Energy, Inc., SEAN DETTRICK, JON DOUGLASS, FENTON GLASS, EUSEBIO GARATE, YADONG LUO, ROBERTO MENDOZA, XUN SUN, MATTHEW THOMPSON, MICHEL TUSZEWSKI, TAE TEAM — Plasma electron density profiles and profile evolutions in the C-2 field reversed configuration (FRC) experiment are measured by a 6-channel two-color laser interferometer. Measured profiles from translated FRC plasmas are compared with MHD simulation results from the LamyRidge code. Profile changes at the merging process will be investigated. Profile dependence on the FRC parameters such as external magnetic field strength will be examined. Density measurements from a 9-point Thomson scattering diagnostic and a triple probe will be compared.

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