

Abstract Submitted
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X-Ray Diagnostics on the Lockheed Martin T4 Experiment ELIZABETH STRANDBERG, Lockheed Martin — The Lockheed Martin T4 Experiment is a magnetically encapsulated linear ring cusp confinement device designed to study the physics relevant to the Compact Fusion Reactor program. The diagnostic suite includes a hard x-ray detector ($\sim 1 - 100$ keV) and a soft x-ray grazing incidence monochromator ($\sim 5 - 1200$ eV). X-ray emission spectra were used to identify plasma impurities. Specific emission lines were used to determine ion temperature via Doppler broadening and electron temperature via line intensity ratios. An overview of both x-ray systems and analysis of results from the 2015 experimental campaign will be presented.

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