

Abstract Submitted
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Spectroscopic Modeling of Radiation from Stainless Steel Double Planar Wire Array Experiments on the LTD Generator at U Michigan.¹ M. LORANCE, A. STAFFORD, A.S. SAFRONOVA, V.L. KANTSYREV, I.K. SHRESTHA, V.V. SHLYAPTSEVA, M.T. SCHMIDT-PETERSEN, M.C. COOPER, University of Nevada, Reno, A.M. STEINER, D.A. YAGER-ELORRIAGA, N.M. JORDAN, R.M. GILGENBACH, The University of Michigan, Ann Arbor — New planar wire array (PWA) experiments were carried out on the MAIZE Linear Transformer Driver (LTD) generator at the University of Michigan (UM) during the second campaign in August 2015. Stainless steel 304 (68% Fe, 19% Cr, and 9% Ni) Double PWAs comprised of two planes of six wires each with array masses of 20 or 44 μg were imploded. X-ray spectra were gathered with an x-ray time-integrated axially resolved spectrometer to record L-shell Fe radiation between 10-16 eV and X-ray pinhole images of radiation source were collected and compared with the spectra. Non-local thermodynamic equilibrium kinetic modeling was used to identify diagnostically important spectral features and to estimate plasma parameters..

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