

Abstract Submitted
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Quantification of axially correlated ablation in z-pinch wire arrays.¹ JACOB ZIER, T. STRICKLER², M.R. GOMEZ, R. GILGENBACH, Y.Y. LAU, W.W. TANG, University of Michigan, D.A. HAMMER, B.R. KUSSE, J. GREENLY, J. DOUGLASS, R. MCBRIDE, D. CHALENSKI, K. BELL, P. KNAPP, W. SYED, Cornell University, COBRA TEAM — Wire array z-pinch experiments were performed on the 1 MA, 100 ns rise-time COBRA facility at Cornell University. Experiments utilized 7-wire-arrays, including one pair of identical 7.5 micron diameter tungsten wires and one pair with a 7.5 and a 5.0 micron wire, both spaced 240 nm apart. X-ray backlighters were used to image the wire cores. Axially correlated ablation regions between wires in the equal-diameter pair were observed. The unequal-diameter pair tested whether ablation regions in the smaller, more quickly ablated wire imprinted into the larger wire later in time. Comparisons will be presented of the fractional-lengths of correlated ablation regions for both cases.

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