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A comparative analysis of implosion dynamics of triple planar wire arrays of Mo and Al on the 1 MA, 100 ns UNR Zebra generator M.E. WELLER, A.S. SAFRONOVA, V.L. KANTSYREV, A.A. ESAULOV, K.M. WILLIAMSON, I. SHRESTHA, G.C. OSBORNE, N.D. OUART, M.F. YILMAZ, V. SHLYAPTSEVA, University of Nevada, Reno — Implosion dynamics of three different triple planar wire arrays (TPWA) that were performed on the 1 MA, 100 ns UNR Zebra generator will be compared: the first consisting of pure Mo, the second consisting of 68% Mo and 32 % Al (5052), with Mo on the outside, and the third consisting of 35% Mo and 65% Al (5052), with Mo on the inside. In particular, experimental results for x-ray time-integrated, spatially-resolved spectra and pinhole images, x-ray time-gated pinhole and spectra images, laser shadowgraphy, optical streak camera images, PCD signals, and total energy will be fully compared and analyzed. Plasma parameters derived from non-LTE models of Mo, Al, and Mg will be presented and discussed.

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