

Abstract Submitted  
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**Analysis of x-ray bright spots from triple and single combined Cu and Al planar wire arrays on the 1MA pulsed power generator at UNR** A.S. SAFRONOVA, V.L. KANTSYREV, A.A. ESAULOV, N.D. OUART, M.F. YILMAZ, M.E. WELLER, K.M. WILLIAMSON, V. SHLYAPTSEVA, I. SHRESTHA, G.C. OSBORNE, UNR, C.A. COVERDALE, SNL, C. DEENEY, NNSA, DOE — The recently discovered implosion features of double planar wire arrays, such as the two step precursor formation with the independent implosion of wire arrays made from different materials and bright spot generation in a central precursor column early in time [Kantsyrev et al, PoP 15, 030704 (2008)], led to new experiments with combined triple planar wire arrays (TPWA). Combined TPWA include three planar wire rows that are parallel to each other and made of either Cu or Al alloyed wires. New x-ray data for two configurations (Al/Cu/Al and Cu/Al/Cu) are considered and compared with each other, with the results from combined single planar wire arrays of the same materials, and with Cu uniform cylindrical wire arrays. Emphasis is made on the study of bright spot formation, which is a signature of implosions of planar wire arrays and can be significant for other wire array configurations as well. Work was supported by NNSA/DOE under Coop. Agr. DE-FC52-06NA27588, DE-FC52-06NA27586, and in part by DE-FC52-06NA27616. Sandia is a multi-program laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the US DOE under Contract DE-AC04-94AL85000.

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