

Abstract Submitted  
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**Implosion dynamics and radiation characteristics of planar wire arrays and their comparison with low-wire number cylindrical wire arrays features on the 1 MA z-pinch generator at UNR<sup>1</sup>** V.L. KANTSYREV, A.S. SAFRONOVA, V.V. IVANOV, K. WILLIAMSON, I. SHRESTHA, G. OSBORNE, N.D. OUART, M.F. YILMAZ, A. HABOUB, T.E. COWAN, University of Nevada, Reno, L.I. RUDAKOV, Icarus Inc., A.L. VELIKOVICH, NRL, C.A. COVERDALE, B. JONES, C. DEENEY, Sandia National Laboratories, P.D. LEPELL, Ktech Corp., A.S. CHUVATIN, Ecole Pol. — Planar wire arrays [1] were shown to produce > 17-18 kJ EUV/x-ray radiation yields for Cu and Mo in a ns-scale high-power pulse. The measurements of the  $T_e$  and  $n_e$ , yields, time-gated x-ray spectra and images, laser probing images from the single and double planar arrays showed that their plasma formation and implosion are different from cylindrical arrays. The explanation why the current is nearly equally redistributed over all wires and specific of plasma implosion dynamics and radiation is given. Results were compared with low-wire number cylindrical arrays with implosion time close to planar arrays one. The modeling has shown that the enhanced resistivity of the inhomogeneous plasma plays a significant role in the presented planar wire arrays experiments. [1] Kantsyrev *et al.*, IEEE Trans. Plasma Sci., v. 34,194 (2006).

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