

Abstract Submitted  
for the DPP10 Meeting of  
The American Physical Society

**Analysis of results of recent implosions of palladium wire loads arranged in single planar wire arrays on Zebra at UNR** A.M. COVINGTON, T. DARLING, University of Nevada, Reno, A.S. SAFRANOVA, V.L. KANTSYREV, A.A. ESAULOV, I. SHRESTHA, K.M. WILLIAMSON, S. KEIM, V. SHYLAPTSEVA, G.C. OSBORNE, M.E. WELLER, N.D. OUART, University of Nevada, Reno — Experiments with palladium wire loads were performed on Zebra at UNR to understand the implosion and radiative properties of this unique wire material. The loads were planar wire arrays (PWA) arranged in a single row for a uniform load with twelve palladium 10  $\mu\text{m}$  wires (total mass  $M \sim 227 \mu\text{g}$ ) and a combined load with five palladium 25  $\mu\text{m}$  wires and one aluminum 40  $\mu\text{m}$  wire ( $M \sim 656 \mu\text{g}$ ). A full diagnostic set which included more than ten different beam-lines was implemented. The implosion of these Pd loads produced a high radiation yield (27 kJ for a heavier load) which is comparable to recently tested Ag PWA loads. The main focus was put on comparison of implosion and radiative characteristics of these two shots and with results for the identical Ag PWA load. Future experiments with modified palladium wires and their applications are discussed.

Aaron Covington  
University of Nevada, Reno

Date submitted: 26 Jul 2010

Electronic form version 1.4