

Abstract Submitted
for the DPP08 Meeting of
The American Physical Society

Nested X Pinches on the COBRA Generator¹ DAVID HAMMER, TATIANA SHELKOVENKO, SERGEI PIKUZ, Cornell University, RYAN MCBRIDE, PATRICK KNAPP, HAROLD WILHELM, Cornell University, DANIEL SINARS, Sandia National Laboratories — Recent results of X pinch studies on the COBRA generator at Cornell University (peak current up to 1.2 MA and rise time of 100 ns) are presented. Increasing of the pulser current requires the use of loads with higher mass per unit length. Such loads can be made by increasing the number of wires or the wire diameters, which leads to increasing the size and complexity of the wire crossing region. Using an initial configuration of wires (before their twisting), similar to nested arrays enables the assembly of a more-nearly symmetric configuration at the X pinch crossing region. It also enables an investigation of multilayered X pinches. We will present experimental results obtained from X pinches with different configurations, including X pinches with different materials in the inner and outer wire layers.

¹Work supported by DOE grant DE-FG03-98ER54496, by Sandia National Laboratories Contract No AO258 and by the Stewardship Sciences Academic Alliances program of the National Nuclear Security Administration under DOE Cooperative Agreement DE-FC03-02NA00057.

David Hammer
Cornell University

Date submitted: 18 Jul 2008

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