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Wire initiation critical for radiation symmetry in Z-pinch driven Dynamic Hohlraums[1] T.W.L. SANFORD, G.A. ROCHAU, S.E. ROSENTHAL, L.F. BENNETT, D.E. BLISS, M.E. CUNEO, W.A. STYGAR, SNL, C.A. JENNINGS, J.P. CHITTENDEN, M.G. HAINES, IC, R.C. MOCK, G.S. SARKISOV, Ktech, P.V. SASOROV, ITEP, D.L. PETERSON, M.J. BERNINGER, LANL — A high degree of large-scale axial symmetry in soft X-ray radiation and hence also in the plasma implosion in multi-wire array Z-pinches is very important for the creation of Dynamic Hohlraums of high quality and utility. Such hohlraums are used for the compression of inertial confinement fusion capsules and for driving radiation flow experiments. We present the first experimental evidences that this symmetry is controlled in large measure by subtle details of the initiation of the wires in the arrays. Important parameters of the wire initiation are examined and mechanisms of how these parameters may affect the quality of the plasma implosion are considered.

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