

Z-pinch like Experimental Arrangements

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Abstract

The Plasma Physics Group at Pontificia Universidad Católica de Chile (PUCCh) has been investigating z-pinch like plasmas for the last twenty years. Here we present experimental observations on a variety of z-pinch like plasmas, using a range of very small to medium size pulse power drivers. The experiments include low and high current capillary discharge, plasma focus pinch, hollow gas embedded z-pinch, x-pinch and wire-array pinch. Different diagnostics are used to characterize the plasma dynamics and radiation properties of the different z-pinch plasma, as well as the emission of plasma jets and ion beams.