ENERGY CONFINEMENT OF HIGH DENSITY PELLET-FUELED PLASMAS
IN ALCATOR C


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Abstract

A series of pellet-fueling experiments has been carried out on the Alcator C tokamak. High speed hydrogen pellets penetrate to within a few centimeters of the magnetic axis, raise the plasma density and produce peaked density profiles. Energy confinement is observed to increase over similar discharges fueled only by gas puffing. In this manner record values of electron density, plasma pressure, and Lawson number (nt) have been achieved.

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