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Hydride lithium compression investigation in the megabar area by means of ultrahigh magnetic field pressure of the generator MC-1

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One of the main characteristics of the equation of states (EOS) is zero isotherm (i.e. a curve of the “cold compression”). Particularly, it defines the substance compression in the condensed phase. The substance behavior study and, first of all, the study of their equation of states at ultrahigh pressures and low temperatures is one of the fundamental tasks of high energy density physics.

The zero hydride lithium LiH investigation experiments are provided in the megabar area of pressures at isentropic compression by means of ultrahigh magnetic field pressure of the generator MC-1. The points up to 5Mbar are obtained on the P - ρ phase diagram.

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