## Study of the isentropic compressibility of solid phase carbon dioxide in the region of ultra-high pressures

Surdin O.M.<sup>1,@</sup>, Boriskov G.V.<sup>1</sup>, Bykov A.I.<sup>1</sup>, Egorov N.I.<sup>1</sup>, Kozabaranov R.V.<sup>1</sup>, Korshunov A.S.<sup>1</sup>, Kudasov Yu.B.<sup>1</sup>, Makarov I.V.<sup>1</sup>, Maslov D.A.<sup>1</sup>, Pavlov V.N.<sup>1</sup>, Platonov V.V.<sup>1</sup>, Repin P.B.<sup>1</sup>, Selemir V.D.<sup>1</sup>, Strelkov I.S.<sup>1</sup> and Belov S.I.<sup>1</sup>

The paper presents the design and results of experiments on isentropic compression of solid carbon dioxide to pressures above 5Mbar in a device based on a magnetocumulative generator. The initial state of the compressed samples corresponded to atmospheric pressure and a temperature close to 150K. The occurrence of electrical conductivity was recorded in the studied samples, and the density and pressure were also determined at different moments of the compression process.

<sup>&</sup>lt;sup>1</sup> Federal State Unitary Enterprise "Russian Federal Nuclear Center—All-Russian Research Institute of Experimental Physics, Mira Avenue 37, Sarov, 607188, Russia

<sup>@</sup> mossom1@rambler.ru