Germanium and germanium–gold alloys under shock-wave loading

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The results of numerical experiments upon modeling of thermodynamic parameters such as value of pressure and compression of germanium and its alloys with gold are presented. The calculations were performed using the model TEC (thermodynamic equilibrium components). The model allows us to take into account the phase transition of germanium under shock-wave action. The interest in investigating of the compressibility for such materials is related both to the possibility of creating materials with the necessary properties and to the properties of the materials themselves. The results of calculations are compared with the known experimental results of different authors. The value of pressure and compression for shock wave loading of pure germanium and alloys with germanium as a component of various compositions are calculated.