

Equation of state for rhodium at high energy densities

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An equation of state for rhodium is proposed taking into account the effects of melting and evaporation. Calculations of thermodynamic characteristics and the phase boundaries of solid, liquid and gaseous Rh over a wide range of densities and temperatures are carried out. Comparison of calculated results with available experimental data and theoretical predictions at high energy densities is presented. Obtained multiphase equation of state for rhodium can be used effectively in numerical modeling of processes under conditions of intense pulsed influences on the material. This work is supported by the Russian Science Foundation (grant No. 19-19-00713).