Equations of state for liquid phases of molybdenum and tungsten with a small number of parameters

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In this work, the equations of state for liquid phases of molybdenum and tungsten are presented. The equations of state were obtained on the basis of models with a small number of parameters [1, 2]. The parameters of the equations of state were selected using available data from experiments on the isobaric expansion of the liquid phase at high temperatures. To obtain caloric equations of state, a method for calculating the isochoric heat capacity (taking into account the assumption that it is constant) is proposed. Using the obtained equations of state, shock adiabats and release isentropes are calculated. The calculation results are compared with experimental data on shock loading and isentropic release of initially porous samples. On the basis of agreement with experiment, the limits of applicability of the obtained equations of state are determined.
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