Equation of state of fluid lead from exploding foils experiments

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The Mie–Grüneisen equation of state has been constructed for fluid lead based on results of the exploding foils experiments [1]. It is shown that the equation of state describes with sufficient accuracy thermodynamic properties of lead in the liquid and gaseous state as well as in the region of the metal-nonmetal transition occurring in the fluid on expansion. The nature of the transition is investigated based on its effect on thermodynamic functions and electrical resistivity.

[1] Kondratyev A M, Korobenko V N and Rakhel A D 2018 *ZhETF* **154** 1168