Calculation of shock adiabats of mixtures at high pressures

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In this work, we calculate the shock adiabats for mixtures of different materials. The calculation is based on the additivity method of shock adiabats of components, according to which, at a given shock compression pressure, the specific volume of the shock-compressed mixture is the sum of the specific volumes of the shock-compressed components of the mixture, taking into account their mass fractions. The results of this calculation of shock adiabats are compared with the available data of shock-wave experiments for two-component mixtures and alloys at high pressures.