Numerical-theoretical research of liquid dispersion under SW effect

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Abstract
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The authors present approximated equations for estimation of spectral characteristics of liquid particles ejected from substance surface under effect of shock wave (due to Richtmayer-Meshkov instability growth). Also an attempt was made to use these equations for solids with account for their strength properties.

Basing on relations determined in this work, numerical analysis allowed to describe the experimentally-obtained particle distributions in sizes at the qualitative level.

Basing on numerical simulation, schemes of experimental setups are suggested for study of influence of surface tension on fragment sizes, determination of model constants.