Analysis of the impact of external magnetic field on the flow structure near a contact boundary surface

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The paper discusses the problem of gas-dynamic instability and the corresponding turbulent mixing as well as the numerical methods of its solving. The authors consider the problem of the turbulent mixing in the two-layer cylinder-shaped targets (based on the three-layer predicted intercept area). They also analyze three means of accelerating the contact boundary surface. The paper introduces similarity criteria and major dimensionless parameters defining the process of radiation and magnetic gas-dynamic instability.

Keywords: gas dynamics, numerical simulation, contact boundary, Rayleigh—Taylor instability, Richtmyer—Meshkov instability.

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