



The study of turbulent mixing zone development in laser shock tube experiments.

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Paper presents the results of experimental and numerical investigations of the development of turbulent mixing zone at laser acceleration of thin films in air. The experiments have been made at KrF laser "GARPUN" (Lebedev Physical Institute, Moscow) (Bakaev, 2005). We have compared the experimental data with the results of 2D numerical simulations. In order to describe the turbulent mixing we have developed the model of turbulent diffusion, based on well-known Belen'ki & Fradkin model (Belen'ki, 1965), and have got good agreement between experimental and numerical results (Krasnyuk, 2006).

1 References

Bakaev V.G., Batani D., et al. 2005. Hydrodynamics of high-energy GARPUN KrF laser interaction with solid and thin-film targets in ambient air; *J.Phys. D: Appl. Phys.*, **38**, 2031-2044

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