

About possibility of the research of the mechanisms of formation of a cloud of the microparticles at a shock wave exit on a free surface of a layer of the condensed environment in laboratory experiments

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Results of the first experiments on research of the mechanism of formation of a cloud of microparticles at a shock wave exit on a free surface of a layer of the condensed environment owing to development of the instabilities various types in laboratory experiments are described.

Experiments of two types are made - in flat and cylindrical geometry. In the first cases the shock wave was initiated by shock of a thin plate on the layer of water. In the second cases the shock wave was created by electric explosion of a delay on an axis of the cylindrical sample of the condensed environment. The characteristic scale of speeds ~ 100 m/s, registration was made by an optical method.