NONLINEAR DYNAMICS OF PRESSURE NEAR A SURFACE OF SUBSTANCE DURING LASER IMPULSE ACTIVITY

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S u m m a r y

We have studied the dynamics of a plasma plume under a destructive treatment. The main parameter determining the process is pressure. In the technologically relevant approximation when polytropic exponent is close to unity, the equation describing the dynamics divides into two ones which describe, respectively, the processes running during the destructive pulse action and after the termination of a pulse. The dependences of pressure on both the pulse duration and a parameter responsible for the radiation-gas interaction are analyzed.