

# Excitation of detonation in an explosive composition based on TATB during shock wave initiation by plane shock waves with an amplitude from 8 to 12 GPa

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To verify models of detonation kinetics used in mathematical modeling of the operation of products containing explosives, data on shock wave initiation of detonation obtained in various model experiments are used. The main ones are experiments on the initiation of stationary detonation by shock waves of a rectangular (table-shaped) profile in the amplitude range from 2 to 20 GPa.

This paper presents the results of experiments to study the shock wave initiation of an explosive composition based on TATB to shock waves with a rectangular profile and an amplitude of 8-12 GPa.

The following data were obtained: the dependence of the depth of detonation excitation and the time of formation of the detonation regime on pressure, and the pressure profiles at the screen-explosive composition interface.

The experimental data obtained in the work were used to test the detonation kinetics models “MK” and “Ochag”.

The research results can be used to calibrate and verify formal kinetic models of detonation.