

# Study of shock wave propagation in aluminum barrier initiated by detonating insensitive TATB-based explosives

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The work gives the results of shock propagation in the aluminum barrier initiated by two detonating TATB-based explosives: thermo-plastic high explosive and cast blasting explosive. The experimental results for each HE under investigation were used to determine the velocity of shock propagation in the aluminum barrier, shock front shape, and shock front curvature. The Al Hugoniot equation was used to compare and estimate the effective Jouguet pressures for these HEs. The obtained results indicate the substantial differences between the processes of detonation front propagation in the bulk samples of HEs under investigation.