

MECHANICALLY ACTIVATED ENERGETIC COMPOSITES. THE INFLUENCE OF THE VALUE OF THE CONTACT SURFACE AND DEFECTS IN COMPONENTS

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Abstract: Two evaluation methods of the value of contact surface S_C of components of mechanically activated composites (MAEC) based on oxidizer–fuel mixtures have been proposed. The values of S_C are estimated for 4 systems Al(Mg)/MoO₃ (polytetrafluoroethylene, PTFE) and also, the defect structure of composites is fully described. The influence of crystal defects of components and values of S_C on chemical transformations in MAECs under thermal and shock-wave impact has been analyzed.

Keywords: oxidizer; metal; mechanical activation; defects in the crystal structure; reactivity

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