

Abstract Submitted  
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**Peculiarities of spall fracture of beryllium** VIKTOR SKOKOV, V.A. ARININ, D.V. KRYUCHKOV, A.N. MALYSHEV, V.A. OGORODNIKOV, K.N. PANOV, V.V. PESHKOV, V.A. RAEVSKY, RFNC-VNIIEPh — Authors of this work performed investigations of spall fracture in a beryllium sample with diameter 90 mm and thickness 20 mm when loading HE charge made of TG 5/5 with thicknesses of 12 and 100 mm, HMX with thickness of 100 mm by detonation wave. Spall fracture was formed in the sample during its release into air gap. Laser interferometer Visar was used to measure velocity profile at the free boundary, thickness of the spall layer was measured by the technique of two-frame pulse X-ray radiography, the manganin gauge technique was used to measure profile of the shock-wave pulse in the fluoroplastic base when decelerating the beryllium spall layer, the technique of electrocontact gauge was used for determination of location of the spall layer at two times. When TG 5/5 thicknesses were 12 and 100 mm, it was revealed that the spall layer thickness, which was measured after its traveling the distance of 8 mm, was nearly unchanged. It was equal to 1.8 and 2.1 mm, respectively. It was observed in the test with a charge made of HMX that, depending on traveled distance  $x$ , thickness of the spall layer  $\delta$  under the condition of absence of tensile stresses is continuously decreasing.

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