

# Simulation of boron carbide spherical shell behavior under explosive compression

**Zabusov P V<sup>@</sup>, Karpenko G Ya, Kiryukhina M N,  
Kovaldov V V, Nefedov A V, Panov K N, Saprykina E V  
and Shirshova M O**

Federal State Unitary Enterprise “Russian Federal Nuclear  
Center—All-Russian Research Institute of Experimental Physics”, Mira  
Avenue 37, Sarov 607188, Russia

<sup>@</sup> [zabusovpv@gmail.com](mailto:zabusovpv@gmail.com)

In this paper, we present X-ray radiography experiment for explosive compression of spherical shell of boron carbide and lead with one-point detonation initiation of spherical explosive layer. Experimental data are compared with results of numerical simulation carried by LEGAK procedure. Acceptable agreement of boron carbide shell failure nature between experiment and calculation is achieved