EXPLOSIVE COMPACTION OF MIXTURE WC+Co
ON AXIAL SYMMETRIC SCHEME

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In this work, the task to develop and optimize schemes of explosive compaction of powder mixtures of solid materials with a metal band was resolve. Experiments on explosive compaction of mixtures of tungsten carbide (WC) and cobalt (Co) in the cylindrical ampulas of conservation has been performed. A numerical simulation of the propagation of shock waves on a two-phase porous medium WC+Co was hold. On the basis of experimental and numerical studies of shock wave propagation the optimal conditions of explosive compaction of a two-phase porous medium are defined. It is shown that the most advantageous for obtaining a uniform mixture of solid compact powder WC+Co 9:1 by volume axially symmetric with the central mandrel circuit is compaction mode corresponding to the detonation velocity explosive charge 4,6 km/s, followed by sintering.