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Properties thermoreversible cocrystals with a low temperature of melting on a basis hexanitrohexaazaisowurtzitane

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Abstract

Results of researches on producing co-crystals are presented in the article on the basis of hexanitrohexaazaisowurtzitane and on defining their properties. Parameters of thermal decomposition, burning, microstructure, as well as explosive characteristics and features of products of combustion of co-crystals depending on component structure, surplus of one of components and repeated melting of co-crystals with the subsequent cooling are determined. It has been shown that a series of the investigated co-crystals are thermoreversible, have low melting temperature and can be used as a binding basis of energy materials.