

COMBUSTION OF NANOTHERMITES AT SUBATMOSPHERIC PRESSURE

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Abstract: Combustion of nanothermite compositions CuO/Al in weight ratio 70:30, MoO₃/Al in weight ratio 60:40, and Bi₂O₃/Al in weight ratio 85:15 was investigated. Velocities of combustion for low-density samples of these nanothermites were measured. The samples for the experiments were made by filling nanothermite into polypropylene tubes. The experiments were conducted at subatmospheric pressure. Based on the comparison of the obtained data, a hypothesis on the mechanism of combustion of nanothermites was suggested.

Keywords: nanothermite; burning rate

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