

EXPERIMENTAL STUDY OF THE LOW-TEMPERATURE SOLID-PROPELLANT GAS GENERATOR FOR RAMJET

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Abstract: Primary selection of potential solid propellants for a ramjet gas generator meeting specific requirements was carried out. Solid propellants have to be adaptable for sublimation (gasification of a single solid-fuel charge in the products of combustion of solid-propellant charge). The experimental procedure of solid propellant evaporation was developed. This technique is considered as an example of thermal decomposition of a variety of solid propellants. As a result of experimental studies, prospective solid fuels were selected that can be used to create a ramjet with a serial arrangement of charges of solid propellants and gasified combustible.

Keywords: thermal decomposition; sublimation; solid propellant; low-temperature core

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