# Experimental investigation of the gel fuel combustion process initial by the hot particle

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In recent years, the perspective of the space development influence to the development of the rocket and space industry in Russia, the United States, France, India, China and other countries [1]. One of the directions for implementing such programs is the development of new fuels, for example, gel fuels, and ways to initiate their combustion, which can be based on the conductive energy by group of small particles heated to high temperatures. Regularities and characteristics of physicochemical processes during the initiation of combustion of gel fuel essentially differ from the regularities and characteristics of the processes occurring when igniting the solid and liquid condensed matters [2, 3].

In this paper, we determined the ignition delay for a typical gel fuel by metal particles of various form. Determined the ignition delay times by varying the initial particle temperature. Determined the ignition delay times by varying the initial gel fuel temperature. The method of gel formation is presented [4].

**References**

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