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RESEARCH OF LASER IGNITION OF PROPELLANT OXYGEN-KEROSENE IN THE MODEL SET

**Abstract**

Energomash conducted a pilot study of non-hypergolic propellant (gaseous oxygen + kerosene) ignition by laser incendiary device by optical breakdown in the volume of the combustion chamber model setup. One-, three-, and nineteen- elements injector heads were tested. During the tests the possibility in principle of laser ignition of fuel gaseous oxygen + kerosene confirmed. The study of influence of the laser focus area for the presence of inflammation continues. Due to the positive results of the study and to achieve the main goal - the modernization of the ignition LRE, work will continued in the study of laser ignition of propellant liquid oxygen + kerosene in volume standard steering engine chamber RD107 and RD108 rocket "Soyuz".