

SPACE PROPULSION SYMPOSIUM (C4)  
Propulsion Systems I (1)

Author: Dr. Vladimir Shnyakin  
Yuzhnoye State Design Office, Ukraine, info@yuzhnoye.com

Mr. Volodymyr Shul'ga  
Ukraine, info@yuzhnoye.com

Mr. Oleksandr Zhivotov  
Ukraine, info@yuzhnoye.com

SPACE LIQUID ROCKET ENGINES WITH MULTIPLE IN-FLIGHT RESTARTS AND THRUST  
REGULATION

**Abstract**

This paper presents data on the development of storable fuel space engines, in 2000 – 11000 N thrust range.

The engines provide multiple in-flight restarts and thrust regulation. They can be used to ensure a soft landing onto space bodies.

Proven technologies and structural elements, crucial for LRE's serviceability, will be used during engine development to ensure the required performance within the speci-fied thrust range and development cost reduction.