

# MATHEMATICAL MODEL OF SMALL-THRUST ROCKET ENGINE WITH GASEOUS OXYGEN AND HYDROGEN IN PULSE OPERATION

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Samara State Aerospace University

It is indicated that working substance in combustion chamber corresponds a variable-mass and variable-composition body. Its variation is described with calculation equations for variable-mass and variable-composition body thermodynamics. System of equations for calculation combustion products equilibrium composition is composed. Mathematical model of small-thrust rocket engine which allows to determine ideal engines parameters for pulse mode is designed.

*Engine, rocket thruster, simulator, fuel, propellant, oxidizer, oxygen, hydrogen, pulse operation*

**Egorychev Vitaliy Sergeevich**, Candidate of Technical Science, associate professor of aircraft engines theory department of Samara State Aerospace University. Phone: (846) 334-72-00. Area of research: small-thrust liquid-propellant rocket engines operation, variable-mass and variable-composition body thermodynamics, nonequilibrium thermodynamics.

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