

DEVELOPING AN ELECTRONIC REFERENCE BOOK ON THERMOGASODYNAMIC PROPERTIES OF ROCKET ENGINE FUEL COMBUSTION PRODUCTS TAKING INTO ACCOUNT NON-IDEAL CHARACTER OF THE WORKING PROCESS

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The paper shows the expediency of developing an electronic reference book on thermogasodynamic properties of rocket engine combustion products taking into consideration the non-ideal character of the working process. The description of the physico-mathematical model used and the algorithm of numerical solution of the model's equations are given. The results of the approbation of the reference book developed are outlined. Its possibilities as applied to the improvement of the existing small thrust liquid-propellant rocket engines (STLPRE) as well as for developing liquid-propellant rocket engines and gas-turbine engines using promising fuel components are analysed.

Rocket engine, proportions of components, temperature, total pressure, partial pressure, enthalpy, entropy, Newton's method, initial estimate, iteration.

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