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MATHEMATICAL MODEL FOR THE PARAMETRIC STUDY OF AMMONIA PROPULSION SYSTEM IN MICROSATELLITE PLATFORM BY RANDOM SEARCH METHOD

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A large number of basic design parameters of the ammonia propulsion system makes the task of their search by the method of random search urgent. The aim of the research is to create a mathematical model that is adapted to the chosen method. Mathematical model for random design parameters provides the choice of the optimal reduced mass of the propulsion system, taking into account the complex relationships of the investigated parameters, which provides the solution of the given tasks of microsatellite maneuvering.

Keywords: ammonia, correcting propulsion device, microsatellite, random search method, basic design parameters.

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