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TO THE HISTORY OF THE SPACE SCIENCE IN UKRAINE: ROCKET ENGINES AND POWER
PLANTS

Abstract

In the report the new materials devoted to origin (1952) and development (1952-1998) of the scientific researches of rocket engines of various purpose and type (with liquid and solid fuel, electric) and space power plants are submitted. The chronology and the analysis of the main scientific subjects which it was carried out by scientists of Ukraine is submitted. Especially the creation of scientific bases of designing nuclear turbo machine plants and electrorocket engines for project GSS - the television global scout satellite, on development control SPRE, systems of pressurization of tanks with help liquid gas generator (LGG), dynamics LPRE and units of automatics of rockets, damping systems of fluctuations of rockets, welding in space, etc are considered. The part of these researches were surpassed the time hereupon they have not found the application at that time and consequently they are interest for perspective directions of the researches now. So for example, in DSU in 1970-1980 practically all types of EP have been tested. These output are unknown and therefore the scientists of other countries is repeating frequently. The extremely complex and dangerous long (about one year) tests of many systems and units nuclear space plants, functioning on liquid alkaline metals - potassium, sodium, cesium, rubidium have been carried out. The executed scientific researches by unknown persons till now because of privacy of carried out works as the Ukrainian scientists and unknown confidential monographies on the rocket techniques of Ukrainian scientists are analyzed. Questions of preparation of experts of the top skills of doctors and candidates of sciences for the most progressive directions of space-rocket technics, and also mass (some tens thousand) high-quality preparation of engineers for the rocket industry of the widest spectrum of various specialities are separately considered. Bases of such achievements of a world level on all components of development of rocket technics are opened. These achievements are been compared with a condition of a space science in Ukraine after reception of independence. The reasons of sharp falling of rates of scientific researches of space subjects at universities of Ukraine and prospect of an output from existing scientific crisis are analyzed. Space programs of Ukraine are critically estimated. The author worked together with the specified Ukrainian scientists some decades and he uses in the report many unknown earlier archival materials.