GENERAL PROBLEMS OF ELECTROMECHANICS_

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Key words: electromagnetic bearings, magnetic systems power consumption, operation speed.

SPACE ELECTROMECHANICS. SPACECRAFT

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CLASSIFICATION OF AEROSPACE EARTH SOUNDING DATA USING DIFFERENT LEVELS OF PRIOR INFORMATION.

Key words: earth remote sensing, image classification, statistical methods, Bayesian approach, Neumann-Pearson criterion, neural network.

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OPTICAL-ACOUSTIC METHOD FOR MEASURING PARAMETERS OF ATMOSPHERE REMOTE SENSING LASER SYSTEMS EMISSION.....21 Experimental results of application of optoacoustic methods designed to measure parameters of wide-aperture powerful laser irradiation using optical tract elements are represented herein. It was demonstrated that alkali halide crystals being used as active elements enable to create optoacoustic tester of pulse and pulse periodic laser irradiation with aperture of up to 30 cm with $0, 1 - 10 J \cdot cm^2$ energy density and 1 - 100 mcs pulse duration directly in optical tract of lidar. Key words: lidar, pulse TEA CO₂-laser, alkali halide crystal, optoacoustic measurement method, photoelastic interaction.

ELECTROMECHANIC EQUIPMENT AND AUTOMATIC CONTROL SYSTEMS

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Peculiarities of construction of frequency transducers of electric drives of control rods mechanism designed for control and protection system of water pressurized power reactors (WWER), implemented methods enabling to rise energy and operational characteristics, reliability, safety, control effectiveness of linear pulse motors and synchronous jet engines are under consideration in this article.

Key words: frequency transducer, autonomous voltage inverter, pulse-width modulation, linear pulse motor, synchronous jet engine.

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ELECTROMECHANICS AND SOCIOECONOMIC DEVELOPMENT OF THE COUNTRY

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SYSTEMS CONCEPTS OF RESEARCH AND CALCULATION OF PHYSICAL CHANGEABILITY OF HELIUM-NEON

Key words: product quality life cycle, CALS-technologies, marketing researches, helium-neon lasers, systems concepts, physical changeability, stability.

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CALCULATION OF REACTING CORE AND NUCLEAR OPTICAL CONVERTER HEAT-EXCHANGER FOR NUCLEAR

Key words: nuclear optical converter, cesium-137, radioactive wastes, disposal, heat carrier, gas consumption, resistance coefficient, volumetric heat generation, drop in temperature, pumping speed, heat output, reacting core.