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DATA TRANSMISSION AND PROCESSING

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Key words: error correction non-binary code, the binomial system of notation, encoding algorithm, "soft" decoding algorithm, points space "packaging".

The encoding and "soft" decoding non-binary error-correcting codes algorithms based on the binomial numbers representation system are suggested. Gain in noise immunity of 1.4 dB and in code rate in 2 times was achieved compared to BCH codes.5

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Key words: high-frequency electric fields, diagram of stability, trajectories of charged particles, Hill equation, axisymmetric analyzer, mass filter.

The results of investigations by the method of calculating the parameters of pulse stability diagram for quadrupole mass filter and three-dimensional ion traps are presented. Analytical expressions relating the parameters of high-frequency voltage pulse shape with the configuration of stability zones are given. The advantage of these relations is possible without considerable losses of computer time necessary to determine the configuration of border zones of stability and position of the curves which are the first and second peaks of common stability areas for all values of p_0 and λ 71

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Key words: deep level, spectroscopy of low-frequency noise.

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Key words: electric current, electric field, energy source, electric motive force, electron, current contour.

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Key words: mathematical modeling, silicon clearing, reception of silicon of solar quality, extractant, diffusion of impurity.

The purpose of this paper is to provide an improved mathematical model of cleaning process of silicon by extraction from the solid phase. Main feature of the improved model is the consideration of impurities removed from the substance of extractant in the cleaning process and the effect of impurities removed from the speed of extractant on rate and depth of treatment.

The calculations consider the diffusion of basic impurities that determine the quality of solar-grade silicon - boron, phosphorus, aluminum, carbon, iron and copper. This paper presents data on distribution of impurity concentration in cross section of particles at different times, the dynamics of changes in average concentration of each impurity in time under various conditions - temperature, particle diameter, different ratios of silicon and volume of the substance-extractant.....87

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Key words: carbon nanotube electronic structure, boron and nitrogen.

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Key words: service procedure, requests processing, computer network, utility function, queue system, integral utility.

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Key words: control equipment, competitiveness, technological level factor, logistical curve, technics generation, space-rocket technics, system forecast, expert estimation.

The expediency of application of scientific forecasting method during difficult technical systems development is proved. Methodical questions to apply the forecast to change separate characteristics of control equipment and technics generation as a whole are considered. Results of research will allow a developing enterprise to be prepared for expected changes of special purpose technics in due time and adequately which will provide its competitiveness 104

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Key words: suboptimum reception, detection characteristics, probability of admission, probability of false alarm, multibeam channel.

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Key words: shadows, segmentation, restore of brightness.

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