

CONTENTS

Electronic engineering materials

- I.Kh.Khabibullin, E.V.Smidt, V.L.Matukhin* Study on Electronic and Magnetic Properties of Semiconductor CuFeS₂ in 77–300 K Temperature Range..... 3
- A.I.Pogalov, A.M.Grushevsky, Y.G.Dolgovykh, Y.V.Surin, T.V.Vigovskaya, V.S.Bychkova* Study on Mode of Ultra-High Metal-Insulator-Semiconductor Diode Stressed-Deformation Materials Hermetic Assembly Design..... 8
- A.V.Rudnev, A.V.Khlynov* Use of Scanning Probe Microscopy in Study of Electrodeposition On Platinum in Presence of Organic Additive 15

Microelectronics technology

- V.A.Bespalov, V.A.Ovchinnikov, D.V.Bazanov, S.M.Avakov* Methods of Repairing Original Integrated Circuit Layout Defects on Photomasks 20
- S.V.Gavrilov, O.N.Gudkova, E.R.Kagramanyan* Reliability Analysis of Digital CMOS Circuits Taking into Account Degradation Effects of Transistors..... 30

Information technologies

- V.D.Koldaev* Heuristic and Quasi-Topological Algorithms of Image Contour Segmentation..... 41
- A.S.Parfenenko, A.V.Rybachek, E.S.Rybalko* Peculiarities of Associative Memory Functioning and Applications..... 46

Integrated radioelectronic devices

- J.V.Chirkounova, K.S.Lyalin, V.I.Oreshkin* Study on Algorithm of Multiple Access with Space Division of Channels in System with Smart Antenna Array..... 52
- V.E.Alekseev, Yu.V.Savchenko, A.N.Solovyev* Problems of Composing Kalman Filter in Multi-Antenna GPS/GLONASS System 58

Measurement methods and technology

- A.L.Filatov, A.V.Gerus, E.M.Korablev, A.V.Lugovskoi* Local Measurement of Electric-Optical Parameters of Silicon Structures Based on Photorefractive Effect..... 66

University education problems

- V.K.Grigoriev, A.V.Grushin* Automated Examination-Bulletins Processing Method of Full-Function Information-Operation System «Dean's Office»..... 71

Brief reports

- A.G.Efimov, V.F.Panin* Bandpass Filters on Dielectric Resonators with High Permittivity. 79
- V.P.Betz, A.V.Kovtonjuk, A.V.Kantor, A.V.Nevzorov, A.E.Shirshakov* Telemetric System for Data Collection and Registration of «Phoebes-Ground» Spacecraft Descending Apparatus (lander) Model for Experimental Range Tests..... 81
- S.B.Benevolenskiy, N.L.Istomina, A.A.Smirnova, M.V.Spynu* Program Complex for Systems of Diffractometrical Control and Measurement of Geometrical Parameters of IC's Units Topology..... 83
- I.I.Bobrinetskiy, V.V.Losev* Scanning Probe Microscopy Capacitance Technique in Air..... 85