

CONTENTS

Fields and Elementary Particles

- Bugaev K.A., Ivanytskyi A.I., Oliinychenko D.R., Nikonov E.G., Sagun V.V., Zinovjev G.M.* Non-Smooth Chemical Freeze-Out and Apparent Width of Wide Resonances and Quark Gluon Bags in a Thermal Environment 181

Nuclei and Nuclear Reactions

- Povoroznyk O.M., Vasilevsky V.S.* Spectrum of Resonance States in ${}^6\text{He}$. Experimental and Theoretical Analyses 201

Atoms and Molecules

- Shpenik O.B., Erdevdy M.M., Markush P.P., Kontros J.E., Chernyshova I.V.* Electron Impact Excitation and Ionization of Sulfur, Selenium, and Tellurium Vapors 217
- Gomonai A.I.* Autoionizing Resonances in Three-Photon Ionization Spectrum of the Ytterbium Atom 225

Plasmas and Gases

- Gorev V.N., Sokolovsky A.I.* Hydrodynamic, Kinetic Modes of Plasma and Relaxation Damping of Plasma Oscillations 232

Soft Matter

- Lev B.I., Ostroukh V.P., Tymchyshyn V.B., Zagorodny A.G.* Electron Distribution on a Deformed Liquid-Helium Surface 247
- Gerasyanov O.I., Spivak A.Ya.* Kinetic Model of Compaction in Granular Materials 253
- Gajevskiy V.R.* Electric Conductivity of Carbon Dioxide Aqueous Solutions 258
- Bulavin L.A., Khrapatyi S.V., Makhlaichuk V.M.* Calculation of Equilibrium Constant for Dimerization of Heavy Water Molecules in Saturated Vapor 263

Solid Matter

- Minailova I.A.* Polarized Radiation Interferometry Research of Thermoelasticity in Silicon Crystal with the Use of Modulation Polarimetry 268
- Demyanyshyn N.M.* Relaxation of Static Photoelasticity in Lead Germanate Crystals 273

Nanosystems

- Baymatov P.J., Inoyatov Sh.T.* Influence of the Medium Polarization on the Energy of an Electron in a Quantum Dot 277