

CONTENTS

Fields and Elementary Particles

- Sagun V.V., Oliinychenko D.R., Bugaev K.A., Cleymans J., Ivanytskyi A.I., Mishustin I.N., Nikonov E.G.* Strangeness Enhancement at the Hadronic Chemical Freeze-Out 1043
- Oliinychenko D.R., Sagun V.V., Ivanytskyi A.I., Bugaev K.A.* Separate Chemical Freeze-Out of Strange Particles with Conservation Laws 1051

Nuclei and Nuclear Reactions

- Frolov P.A., Shebeko A.V.* Relativistic Invariance and Mass Renormalization in Quantum Field Theory 1060
- Nesterov A.V., Vasilevsky V.S., Kovalenko T.P.* Spectrum of Bound States of Nucleus ^{10}B in a Three-Cluster Microscopic Model 1065

Solid Matter

- Franiv V.A., Czaplá Z., Dacko S., Franiv A.V., Kushnir O.S.* Structural Transformations in Tl_4HgI_6 and Tl_4CdI_6 Crystals as Evidenced by Dielectric Properties and Conductivity 1078
- Linchevskiy I.V., Shevchenko T.I.* Application of Magneto-Optical Crystals for Mechanical Stress Registration 1083

- Kashirina N.I.* Application of Quantum Field Theory Methods to the Development of the Translational-Invariant Polaron and Bipolaron Theory 1088
- Klyui N.I., Liptuga A.I., Lozinskii V.B., Oksanich A.P., Pritchyn S.E., Fomovskii F.V., Yukhymchuk V.O.* Tellurium Effect on Degradation Stability of Semiinsulating Gallium Arsenide Crystals 1093

Nanosystems

- Peleshchak R.M., Kulyk N.Ya.* Influence of Electron-Deformation Effects on the Electron Structure of Quantum Dots in Stressed Nanoheterosystems 1098

General Problems of Theoretical Physics

- Markovych B.M., Zadvorniak I.M.* Effective Potential of Electron-Electron Interaction in the Semiinfinite Electron Gas with regard for the Local-Field Correction 1107

Astrophysics and Cosmology

- Lelyakov O.P., Karpenko A.S., Babadzhan R.-D.O.* Dynamics of a Non-Rotating Test Null String in the Gravitational Field of a Closed "Thick" Null String Radially Expanding or Collapsing in the Plane $z = 0$ 1114