

CONTENTS

Nuclei and Nuclear Reactions

- Pasichnyi A.A., Prygodiuk O.A.* Coulomb Resonances, Quasireal Photons, and Giant Dipole Resonance Phenomenon 1133

Optics, Lasers, and Quantum Electronics

- Mamuta A.D., Voitsekhovich V.S., Kachalova N.M., Golovko L.F., Ganul V.L., Zaitsev S.L., Kravchenko A.N.* Influence of Continuous and Pulsed Laser Radiation on Optical and Thermal Properties of Biological Tissues 1149

Plasmas and Gases

- Zhovtyansky V.A., Anisimova O.V.* Kinetics of Plasma Chemical Reactions Producing Nitrogen Atoms in the Glow Discharge in a Nitrogen–Argon Gas Mixture 1155

Solid Matter

- Klochko M.S., Syrkin E.S., Voinova M.V.* Application of Surface Waves for Studying the Characteristics of Gas-Trapping Sensors Located on a Solid Surface 1164
- Neimash V.B., Goushcha A.O., Shepeliavyyi P.E., Yurkymchuk V.O., Dan'ko V.A., Melnyk V.V., Kuz-*

- mich A.G.* Mechanism of Tin-Induced Crystallization in Amorphous Silicon 1168

General Problems of Theoretical Physics

- Simenog I.V., Grinyuk B.E., Kuzmenko M.V.* On Inefficiency of Repulsive δ -potentials in Multidimensional Spaces 1177
- Zhyganiuk I.V., Malomuzh M.P.* Nature of the Frequency Shift of Hydrogen Valence Vibrations in Water Molecules 1183

Nonlinear Processes

- Tkach M.V., Seti Ju.O., Grynyshyn Ju.B.* Influence of Confined Polarization Phonons on the Electron Spectrum in the Three-Barrier Active Zone of a Quantum Cascade Detector 1191
- Gandzha I.S., Sedletsy Yu.V., Dutykh D.S.* High-Order Nonlinear Schrödinger Equation for the Envelope of Slowly Modulated Gravity Waves on the Surface of Finite-Depth Fluid and Its Quasi-Soliton Solutions 1201

- Author's Index to the 59th Volume of "Ukrainian Journal of Physics" for 2014** 1216

- Subject Index to the 59th Volume of "Ukrainian Journal of Physics" for 2014** 1227