



CONTENTS

Fields and Elementary Particles

Abrosimov V.I., Davydovska O.I. Nature of Isoscalar Dipole Resonances in Heavy Nuclei 1043

Optics, Atoms and Molecules

Gomonai A.I., Gomonai A.N. Three-Photon Resonance Ionization Spectroscopy of Excited Even-Parity States of the Samarium Atom 1050

Plasma Physics

Kovtun Yu.V., Siusko Y.V., Skibenko E.I., Skibenko A.I. Experimental Study of Inhomogeneous Reflex-Discharge Plasma Using Microwave Refraction Interferometry ... 1057

Physics of Liquids and Liquid Systems, Biophysics and Medical Physics

Ushcats S.Yu., Ushcats M.V., Sysoev V.M., Gavryushenko D.A. Approximation of Cluster Integrals for Various Lattice-Gas Models 1066

Malomuzh M.P. Nature of Self-Diffusion in Fluids 1076

Semiconductors and Dielectrics

Boichuk V.I., Leshko R.Ya., Karpyn D.S. The Effect of Shallow Impurities on the Light Absorption by the Nanocrystals CdS 1088

Kras'ko M.M., Kolosiuk A.G., Voitovych V.V., Povarchuk V.Yu., Roguts'kyi I.S. Influence of Divacancy-Oxygen Defects on Recombination Properties of *n*-Si Subjected to Irradiation and Subsequent Annealing 1095

Pipa V.I., Liptuga A.I. Rotation of a Thin Heated Plate by Its Own Thermal Radiation 1105

Gasarov Kh.A., Guseinov J.I., Abbasov I.I., Mamedov F.I., Askerov D.J. Dielectric Function of a Quantum-Confined Thin Film with a Modified Pöschel-Teller Potential 1109

Chronicle

Oleksandr Panteleimonovych Rudenko (to the 80th anniversary of his birthday) 1113

Author's Index to the 63rd Volume of "Ukrainian Journal of Physics" for 2018 1115

Subject Index to the 63rd Volume of "Ukrainian Journal of Physics" for 2018 1124