

CONTENTS

Nuclei and Nuclear Reactions

Grinyuk B.E., Piatmytskyi D.V. Structure of ^{14}N Nucleus within a Five-Cluster Model 835

Atoms and Molecules

Litvinov V.A., Okseniuk I.I., Shevchenko D.I., Bobkov V.V. SIMS Study of the Surface of Lanthanum-Based Alloys 845

Soft Matter

Khorolskyi O.V. The Nature of Viscosity of Polyvinyl Alcohol Solutions in Dimethyl Sulfoxide and Water 858

Kozlovskii M.P., Dobush O.A., Pylyuk I.V. Using a Cell Fluid Model for the Description of a Phase Transition in Simple Liquid Alkali Metals 865

Solid Matter

Bondar N.V., Brodyn M.S., Matveevska N.A., Beynik T. Percolation Threshold and Luminescence in Films of Binary Mixtures of Spherical Particles Covered with Quantum Dots 874

Abbasov I.I., Huseynov J.I. Charge-Transfer Processes in $(\text{SnS})_{1-x}(\text{PrS})_x$ Alloys 883

Lyaschuk Yu.M., Korotyeyev V.V. Theory of Detection of Terahertz Radiation in Hybrid Plasmonic Structures with Drifting Electron Gas 889

Girich A.A. Left-Handed Metamaterial Based on the Complementary Split-Ring Resonators Tuned with Varactor Diodes 903

Nanosystems

Naumenko A., Kutsevol N., Chumachenko V., Pashchenko V., Kutovy S., Rawiso M. Synthesis and Characterization of CdS Nanoparticles Obtained in Star-Like Dextran-Graft-Polyacrylamide Matrices 908

General Problems of Theoretical Physics

Antia A.D., Ituen E.E., Jim U.S., Eyibio E.E. Interaction of Spinless Particles with Yukawa Ring-Shaped Potential 913

Chronicle, Bibliographic Data, and Personalia

Yurii Grygorovych Ptushynskiy (to the 90-th anniversary of his birthday) 922