



CONTENTS

Optics, Atoms and Molecules

Turchin A.V. “In-gap” Spectroscopy: Reflected-Wave Phase and Film Characterization 957

Abebe T. The Quantum Analysis of a Nondegenerate Three-Level Laser with Spontaneous Emission and Noiseless Vacuum Reservoir 969

Novak O., Diachenko M., Padusenko E., Kholodov R. Vacuum Birefringence in the Fields of a Current Coil and a Guided Electromagnetic Wave 979

Physics of Liquids and Liquid Systems, Biophysics and Medical Physics

Makhlaichuk V.M. Qualitative Properties of the Shear Viscosity of Liquids 986

Semiconductors and Dielectrics

Matyash I.Ye., Minailova I.A., Mischuk O.M., Serdega B.K. Component Analysis of Radiation-Induced Thermoelasticity Using Modulation Polarimetry 994

Shutovskiy A.M., Svidzinskyi A.V., Sakhnyuk V.E., Pastukh O.Yu. Microscopic Calculation of Josephson Current in Tunnel Junctions with Two-Gap Superconductors 1001

Physics of Magnetic Phenomena and Physics of Ferroics

Glinchuk M.D., Khist V.V. Renovation of Interest in the Magnetoelectric Effect in Nanoferroics 1006

Surface Physics

Bulavin L.A., Alekseev O.M., Zabashta Yu.F., Lazarenko M.M. Phase Equilibrium, Thermodynamic Limit, and Melting Temperature in Nanocrystals 1036