

CONTENTS

Mathematical and Computational Physics

- D. S. SAGE, L. SMOLINSKY. An explicit basis of lowering operators for irreducible representations of unitary groups 5

Atoms and Molecules

- I. A. GOYDENKO, Yu. Yu. DMITRIEV. QED corrections for the valence electron in heavy and super-heavy atoms..... 19

Condensed Matter Physics and Technology

- K. REPŠAS, A. LAURINAVIČIUS, A. R. VAŠKEVIČIUS, F. ANISIMOVAS. Microwave detection at metal–high- T_c superconducting ceramics point contact.... 25
- S. B. SAYYAD, P. B. UNDRÉ, P. YANNEWAR, S. S. PATIL, P. W. KHIRADE, S. C. MEHROTRA. Investigations of intermolecular interactions between 2-methoxyethanol and nitrobenzene through dielectric relaxation study 29
- M. N. SHINDE, R. B. TALWARE, A. C. KUMBHARKHANE. Dielectric relaxation of dihydric alcohol–1,4-dioxane mixtures using time domain technique..... 39
- V. PYRAGAS, V. LISAUSKAS, K. ŠLIUŽIENĖ, B. VENGALIS. Electrical properties of nonstoichiometric $\text{In}_2\text{O}_{3-x}$ thin films 47
- A. DARGYS. Control of two-dimensional electron spin by an abrupt change of physical parameters of a quantum well 53

Environmental Physics

- K. KVIETKUS, J. ŠAKALYS, I. RIMŠELYTĖ, J. OVADNEVAITĖ, V. REMEIKIS, V. ŠPAKAUSKAS. Characterization of aerosol sources at urban and background sites in Lithuania..... 65
- R. DRUTEIKIENĖ, R. MORKŪNIENĖ, B. LUKŠIENĖ. Distribution of artificial radionuclides in the Baltic seaside environment..... 75