

CONTENTS

Nonlinear and Coherent Optics

- Y. QIAN, L. WANG, G. SHI, Y. ZHANG, Z. SUN, and Y. LIN.** The impact of group velocity dispersion on femtosecond laser filamentation with higher-order Kerr effect at different atmospheric pressures 47

Semiconductors

- D. ABRAMAVICIUS.** Stochastic theory of charge dynamics and recombination in defect clusters in bulk silicon 56
- J.V. VAITKUS and A. MEKYS.** Increase of the surface recombination velocity at high bias voltage in silicon irradiated by neutrons to extremely high fluences 66

Condensed Matter Physics and Technology

- M. ZEMZEMI.** A computational study of the electronic and thermoelectric properties of metal halide cubic perovskites CsBX_3 (B = Ge, Sn, Pb and X = Cl, Br, I) 73
- D.V. KHVESHCHENKO.** Novel approaches to generic non-Fermi liquids: higher-dimensional bosonization vs generalized holography 85

Environmental Physics

- V. ROMANENKO, G. LUJANIENĖ, S. ŠEMČUK, J. MAŽEIKA, and O. JEFANOVA.** Assessment of the input of particulate $^{239,240}\text{Pu}$ and ^{137}Cs from the Neman River into the Curonian Lagoon 105