

Contents

1 On a feature of temperature dependence of contact resistivity for ohmic contacts to *n*-Si with an *n⁺-n* doping step

A.V. Sachenko, A.E. Belyaev, N.S. Boltovets, A.O. Vinogradov, V.A. Pilipenko, T.V. Petlitskaya, V.M. Anischik, R.V. Konakova, T.V. Korostinskaya, V.P. Kostylyov, Ya.Ya. Kudryk, V.G. Lyapin, P.N. Romanets, V.N. Sheremet

7 Effect of magnetic and electric fields on optical properties of semiconductor spherical layer

V.A. Holovatsky, I.B. Bernik

14 Analysis of features of recombination mechanisms in silicon solar cells

R.M. Korkishko, V.P. Kostylyov, N.A. Prima, A.V. Sachenko, O.A. Serba, T.V. Slusar, V.V. Chernenko

21 Chemical treatment of Cd_{1-x}Mn_xTe single crystals with H₂O₂-HI-citric acid aqueous solutions

R.O. Denysyuk

25 Investigation of the influence of isovalent impurity of silicon and γ -irradiation (⁶⁰Co) on electrophysical parameters of *n*-Ge (Sb)

G.P. Gaidar

29 Dislocation emission caused by different types of nanoscale deformation defects in CdTe

V.N. Babentsov, V.A. Boyko, S.G. Gasan-zade, G.A. Shepelskii, S.V. Stariy

34 Electroluminescent properties of Tb-doped carbon-enriched silicon oxide

S.I. Tiagulskyi, A.N. Nazarov, S.O. Gordienko, A.V. Vasin, A.V. Rusavsky, T.M. Nazarova, Yu.V. Gomeniuk, V.S. Lysenko, L. Rebohle, M. Voelskow, W. Skorupa, Y. Koshka

41 Comparative studies of optical absorption, photoluminescence and EPR spectra of PbMnI₂ bulk layers and nanocrystals

A.I. Savchuk, I.D. Stolyarchuk, O.A. Savchuk, O.A. Shporta, I. Stefaniuk, I. Rogalska, E. Sheregii

46 Synthesis of Mn²⁺-doped CdS nanoparticles covered with different adsorptive layers and their application as biosensors

V.I. Fediv, G.Yu. Rudko, A.I. Savchuk, E.G. Gule, I.S. Davydenko, O.I. Olar, K.S. Volkov

52 High-density data recording via laser thermolithography and ion-beam etching

I.V. Gorbov, A.A. Kryuchyn, K.P. Grytsenko, D.Yu. Manko, Yu.O. Borodin

56 Electro-conductive properties of cadmium octanoate composites with CdS nanoparticles

D.S. Zhulay, D.V. Fedorenko, A.V. Koval'chuk, S.A. Bugaychuk, G.V. Klimusheva, T.A. Mirnaya

61 Raman spectroscopy and X-ray diffraction studies of (GeS₂)_{100-x}(SbSI)_x glasses and composites on their basis

V.M. Rubish, V.O. Stefanovich, V.M. Maryan, O.A. Mykaylo, P.P. Shtets, D.I. Kaynts, I.M. Yurkin

67 Electron structure of TiO₂ composite films with noble metal nanoparticles

T.O. Busko, M.P. Kulish, O.P. Dmytrenko, N.V. Vityuk, A.M. Eremenko

75 Effect of weak magnetic fields treatment on photoluminescence of III-V single crystals

R.V. Konakova, S.M. Red'ko, V.V. Milenin, R.A. Red'ko

80 Morphologic and optical characterization of ZnO:Co thin films grown by PLD

M.V. Vuichyk, Z.F. Tsybrii, S.R. Lavoryk, K.V. Svezhentsova, I.S. Virt, A. Chizhov

85 Electron relaxation and mobility in the inverted band quantum well

CdTe/Hg_{1-x}Cd_xTe/CdTe
E.O. Melezik, J.V. Gumenjuk-Sichevska, F.F. Sizov

97 Features of Auger-emission in channeling

I.A. Kossko, A.Ye. Denisov

100 Extraordinary high-Q resonances in the scattering by a dielectric slab containing a grating of circular cylinders

V.O. Byelobrov, T.M. Benson

106 Publication Ethics and Publication Malpractice Statement

107 Contents