

Contents

Characterization and properties

Mechanisms of microvoid formation within KCl single crystals in the pulse energy release area of laser focused radiation <i>Yu.I.Boyko, M.A.Volosyuk, V.G.Kononenko</i>	289
Morphology and spectral behavior of hydroxyapatite nanocrystalline coatings obtained by gas detonation deposition <i>V.L.Karbovskii, N.A.Kurgan, V.A.Dubok, N.I.Klui, V.Kh.Kasiyanenko, V.V.Stonis, N.V.Rozhkov</i>	297
Spin-reorientation phase transition in ferrite-garnet films of different axial anisotropy <i>Ju.A.Mamalui, Ju.A.Siryuk, A.V.Bezus</i>	304
Spectroscopically detected segregation of Pr ³⁺ ions in YPO ₄ :Pr ³⁺ nanocrystals <i>V.V.Seminko, P.O.Maksimchuk, N.V.Kononets, A.A.Masalov, Yu.I.Boyko, Yu.V.Malyukin</i>	309
Radiation induced defects in M _{1-x} Pr _x F _{2+x} (M ²⁺ = Ca, Sr, Ba, x = 0.35) solid solutions <i>I.A.Boiaryntseva, N.V.Shiran, A.V.Gektin</i>	313
HgCrCdSe as an element of new heterostructure HgCrCdSe/HgMnTe <i>B.Bekirov, I.Ivanchenko, N.Popenko, V.Tkach</i>	319
Strain induced effects in p-type silicon whiskers at low temperatures <i>A.A.Druzhinin, I.I.Maryamova, O.P.Kuttrakov, N.S.Liakh-Kaguy, T.Palewski</i>	325
Symmetry peculiarities of the intracrystalline fields layered semiconductor crystals (PbI ₂) _(1-x) (BiI ₃) _x <i>O.I.Barabash, I.G.Vertegel, E.D.Chesnokov, O.I.Ovcharenko, L.S.Ivanova</i>	330
Magnetic and Invar properties of Fe-35 %Ni alloy after grinding of structure by hydroextrusion <i>V.M.Nadutov, D.L.Vashchuk, Ye.O.Svystunov, V.A.Beloshenko, V.Z.Spuskanyuk, A.A.Davidenko</i>	334
Dispersions of carbon nanotubes and organomodified clay platelets in cholesteric liquid crystals <i>A.M.Chepikov, S.S.Minenko, L.N.Lisetski, N.I.Lebovka, N.V.Usol'tseva, M.S.Soskin</i>	343
The formation of J-aggregates in solutions of reverse micelles <i>I.I.Fylymonova, S.L.Yefimova, A.V.Sorokin</i>	348

Modeling and simulation

Dispersion reduction in size of new phase inclusions by changing solve supersaturation <i>T.V.Kulik, O.L.Shpilinskaya</i>	354
On the existence of additional miscibility gap in Ni _c Cu _{1-c} fcc alloy <i>A.N.Timoshevskii, B.Z.Yanchitsky, V.Korenivski</i>	358

Electrophoretic mobility of magnetically labeled yeast cells <i>S. cerevisiae</i> <i>Y.V.Karpenko, S.V.Gorobets</i>	362
--	-----

Technology

Structural and morphological features of crystallization reactions of amorphous films according to the electron microscopy data <i>A.G.Bagmut</i>	370
---	-----

Silica matrices doped with red laser dyes <i>I.M.Pritula, O.N.Bezkrovnaya, V.M.Puzikov, V.V.Maslov, A.G.Plaksiy,</i> <i>A.V.Lopin, Yu.A.Gurkalenko</i>	378
--	-----

Laser ablation and photostimulated passivation of $Cd_{1-x}Zn_xTe$ crystals <i>Yu.A.Zagoruiko, O.A.Fedorenko, V.A.Khristyan, N.O.Kovalenko,</i> <i>P.V.Mateychenko, M.V.Dobrotvorskaya, A.A.Poluboyarov</i>	385
---	-----

Excitation energy transfer in divinylbenzene copolymers <i>P.N.Zhmurin, D.A.Elyseev, V.D.Titskaya, V.N.Lebedev, A.F.Adadurov</i>	390
---	-----

Devices and instruments

New scintillators for fast and thermal neutron detection <i>N.Z.Galunov, N.L.Karavaeva, V.P.Seminozhenko</i>	394
---	-----

Luminescence energy yields of organic solid materials excited by photons of light or gamma-radiation <i>O.A.Tarasenko, N.Z.Galunov, V.D.Panikarskaya,</i> <i>E.V.Sanin, V.A.Tarasov, V.L.Volkov</i>	404
--	-----

Properties of 0-degree domain walls in cubic ferromagnet in transverse magnetic field <i>R.M.Vakhitov, A.S.Zainullina, O.G.Ryakhova</i>	410
---	-----