

## Содержание

**Zalessky V.G., Kaminski V.V., Hirai S., Kubota Y., Sharenkova N.V.**

Investigation of the dielectric permittivity and electrical conductivity of Ce<sub>2</sub>S<sub>3</sub> . . . . . 435

**Dong Yu Jing, Gao Yan Li**

Structural, mechanical and thermodynamic properties of Cu<sub>2</sub>CoXS<sub>4</sub> (X = Si,Ge,Sn) studied by a density functional theory method . . . . . 439

**Kumar Reddy Baikadi Pranay, Ravi Teja Karri Babu, Kandpal Kavindra**

Investigation on high- $\kappa$  dielectric for low leakage AlGaN/GaN MIS–HEMT device, using material selection methodologies . . . . . 446

**25th Int. Symp. „Nanostructures: Physics and Technology“, Saint Petersburg, Russia, June 26–30, 2017**

Issues 4 and 5 of Fizika i Tekhnika Poluprovodnikov, vol. 52 (2018) contain only the abstracts of papers presented at the Symposium. The full papers are published in SEMICONDUCTORS, vol. 52, Issues 4 and 5 (2018).

- **Optoelectronics, optical properties**

**Andronov A.A., Ikonnikov A.V., Maremianin K.V., Pozdnjakova V.I., Nozdrin Y.N., Marmalyuk A.A., Padalitsa A.A., Ladugin M.A., Belyakov V.A., Ladenkov I.V., Fefelov A.G.**

THz stimulated emission from simple superlattice in positive differential conductivity region . . . . . 463

**Rumyantsev V.V., Bovkun L.S., Kadykov A.M., Fadeev M.A., Dubinov A.A., Aleshkin V.Ya., Mikhailov N.N., Dvoretsky S.A., Piot B., Orlita M., Potemski M., Teppe F., Morozov S.V., Gavrilenko V.I.**

Magnetooptical studies and stimulated emission in narrow gap HgTe/CdHgTe structures in the very long wavelength infrared range . . . . . 464

**Takayama O., Dmitriev P., Shkondin E., Yermakov O., Panah M., Golenitskii K., Jensen F., Bodganov A., Lavrinenko A.**  
Experimental observation of Dyakonov plasmons in the mid-infrared . . . . . 465

**Chaldyshev V.V., Kundelev E.V., Poddubny A.N., Vasil'ev A.P., Yagovkina M.A., Chen Y., Maherjan N., Liu Z., Nakarmi M.L., Shakya N.M.**

Optical properties of AlGaAs/GaAs resonant Bragg structure at the second quantum state . . . . . 466

**Gubaydullin A.R., Symonds C., Bellessa J., Ivanov K.A., Kolykhalova E.D., Sasin M.E., Pozina G., Kaliteevski M.A.**

Purcell effect in Tamm plasmon structures with QD emitter . . . . . 467

**Larionov A.V., Brichkin A.S., Höfling S., Kulakovskii V.D.**

Localization-delocalization transition in disordered one-dimensional exciton-polariton system . . . . . 468

**Cirlin G.E., Reznik R.R., Shtrom I.V., Khreblov A.I., Samsonenko Yu.B., Kukushkin S.A., Kasama T., Akopian N.**

Hybrid GaAs/AlGaAs nanowire — quantum dot system for single photon sources . . . . . 469

**Filatov D.O., Antonov I.N., Sinutkin D.Yu., Liskin D.A., Gorshkov A.P., Gorshkov O.N., Kotomina V.E., Shenina M.E., Tikhov S.V., Korotaeva I.S.**

Plasmon resonance induced photoconductivity in the yttria stabilized zirconia films with embedded Au nanoclusters . . . . . 470

**Ushanov V.I., Chaldyshev V.V., Preobrazhenskiy V.V., Putyato M.A., Semyagin B.R.**

Resonant optical reflection from AsSb–AlGaAs metamaterials and structures . . . . . 471

- **Transport in heterostructures**

**Altukhov I.V., Dizhur S.E., Kagan M.S., Khvalkovskiy N.A., Paprotskiy S.K., Vasil'evskii I.S., Vinichenko A.N.**

Transport in Short-Period GaAs/AlAs Superlattices with Electric Domains . . . . . 472

<b>Bagraev N.T., Klyachkin L.E., Khromov V.S., Malyarenko A.M., Mashkov V.A., Matveev T.V., Romanov V.V., Rul N.I., Taranets K.B.</b>	
High Temperature Quantum Kinetic Effects in Silicon Nanosandwiches . . . . .	473
<b>Vlasov K.R., Pyataev M.A., Shorokhov A.V.</b>	
Partial electron localization in a finite-size superlattice placed in an electric field . . . . .	474
<b>Mozharov A.M., Vasilev A.A., Bolshakov A.D., Sapunov G.A., Fedorov V.V., Cirlin G.E., Mukhin I.S.</b>	
Core-shell III-nitride nanowire heterostructure: negative differential resistance and device application potential . . . . .	475
<b>• Quantum wells, Quantum wires, Quantum dots, band structure</b>	
<b>Danilov L.V., Mikhailova M.P., Levin R.V., Konovalov G.G., Ivanov E.V., Andreev I.A., Pushnyi B.V., Zegrya G.G.</b>	
Enhancement of photoconductivity by carrier screening effect in <i>n</i> -GaSb/ <i>n</i> -InAs/ <i>p</i> -GaSb heterostructure with single deep quantum well . . . . .	476
<b>Lebedev D.V., Kalyuzhnyy N.A., Mintairov S.A., Belyaev K.G., Rakhlis M.V., Toropov A.A., Brunkov P., Vlasov A.S., Merz J., Rouvimov S., Oktyabrsky S., Yakimov M., Mukhin, I.V., Shelaev, A.V., Bykov, V.A., Romanova, A.Yu., Buryak, P.A., Mintairov, A.M.</b>	
Density control of InP/GaInP quantum dots grown by metal-organic vapor-phase epitaxy . . . . .	477
<b>Mintairov A.M., Merz J.L., Kapaldo J., Vlasov A.S., Blundell S.A.</b>	
Wigner localization and whispering gallery modes of electrons in quantum dots . . . . .	478
<b>Mironova M.S., Zubkov V.I., Dudin A.L., Glinskii G.F.</b>	
Self-consistent simulation of GaAs/InGaAs/AlGaAs heterostructures photoluminescence spectra and its application to pHEMT structures diagnostics . . . . .	479
<b>Rakhlis M.V., Belyaev K.G., Klimko G.V., Mukhin I.S., Ivanov S.V., Toropov A.A.</b>	
Red single-photon emission from InAs/AlGaAs quantum dots . . . . .	480
<b>Shtrom I.V., Agekyan V.F., Serov A.Yu., Filosofov N.G., Akhmadullin R.R., Krizhkov D.E., Karczewski G.</b>	
Luminescence of ZnMnTe/ZnMgTe heterostructures with monolayer manganese inclusions in ZnTe quantum wells and its behavior in a magnetic field . . . . .	481
<b>Germanenko A.V., Minkov G.M., Sherstobitov A.A., Rut O.E., Dvoretski S.A., Mikhailov N.N.</b>	
Zeeman splitting of electron spectrum in HgTe quantum wells near the Dirac point . . . . .	482
<b>Kibis O.V., Dini K., Iorsh I.V., Shelykh I.A.</b>	
Floquet engineering of gapped 2D materials . . . . .	483
<b>Entin M.V., Mahmoodian M.M., Magarill L.I.</b>	
Is the edge states energy spectrum of a 2D topological insulator linear? . . . . .	484
<b>• Spin Related Phenomena in Nanostructures</b>	
<b>Babenko Ia.A., Yugova I.A., Poltavtsev S.V., Salewski M., Akimov I.A., Kamp M., Höfling S., Yakovlev D.R., Bayer M.</b>	
Photon echo from an ensemble of (In,Ga)As quantum dots . . . . .	485
<b>Kokurin I.A.</b>	
Electronic states and persistent currents in nanowire quantum ring . . . . .	486
<b>Castelnovo Claudio, Dykman Mark I., Smelyanskiy Vadim N., Moessner Roderich, Pryadko Leonid P.</b>	
Quantum dynamics of a domain wall in the presence of dephasing . . . . .	487
<b>Ushakov N.M., Kosobudskii I.D.</b>	
Impact of UV pulsed laser radiation and of the electron flow on dielectric states of polymer composite nanomaterial based on LDPE matrix . . . . .	488
<b>Yakovlev D.R., Feng D.H., Pavlov V.V., Rodina A.V., Shornikova E.V., Mund J., Bayer M.</b>	
Photocharging dynamics in colloidal CdS quantum dots visualized by electron spin coherence . . . . .	489