

---



---

## Content

---



---

This issue of the Journal SPQEO is dedicated to 100-year anniversary of Prof. Mykhailo Deigen – one of the world founders of radiospectroscopy

**Editorial** 224

### Semiconductor Physics

**Calculation of spin-Hamiltonian constants for extended defects ( $V_{Si}-V_C$ )<sup>0</sup> (Ky5) in silicon carbide polytype 3C-SiC**  
*B.D. Shanina, V.Ya. Bratus'* 225-230

**Condensons and bicondensons in one-dimensional system**  
*N.I. Kashirina, O.A. Korol* 231-237

**Inversion of spin levels in exchange-coupled pairs under combined time reversal**  
*I.I. Geru* 238-248

**Electron and hole effective masses in heavily boron doped silicon nanostructures determined using cyclotron resonance experiments**  
*D.V. Savchenko, E.N. Kalabukhova, B.D. Shanina, N.T. Bagraev, L.E. Klyachkin, A.M. Malyarenko, V.S. Khromov* 249-255

**Current and electroluminescence intensity oscillations under bipolar lateral electric transport in the double-GaAs/InGaAs/GaAs quantum wells**  
*M.M. Vinoslavskii, P.A. Belevskii, V.M. Poroshin, O.S. Piliipchuk, V.O. Kochelap* 256-262

**Semiconductor surface spectroscopy using transverse acousto-electric effect: Role of surface charge in photo-processes at ZnS/Si interface**  
*N.P. Tatyanyenko, N.N. Roshchina, V.L. Gromashevskii, G.S. Svechnikov, L.V. Zavyalova, B.A. Snopok* 263-272

**Studying the mechanical properties of  $(Cu_{1-x}Ag_x)_7GeS_5I$  mixed crystals by using the micro-indentation method**  
*V.V. Bilanych, A.V. Bendak, K.V. Skubenysh, A.I. Pogodin, V.S. Bilanych, I.P. Studenyak* 273-276

**Features of electrochemical processes at the boundary p-GaAs – HF water solution**  
*G.A. Pashchenko, M.Yu. Kravetskyi, L.I. Trishchuk* 277-281

### Hetero- and low-dimensional structures

**Growth of silicon self-assembled nanowires by using gold-enhanced CVD technology**  
*A.I. Klimovskaya, Yu.Yu. Kalashnyk, A.T. Voroshchenko, O.S. Oberemok, Yu.M. Pedchenko, P.M. Lytvyn* 282-287

### Optics

**Electronic structure and optical properties of HgSe**  
*J.O. Akinlami, O.O. Odeyemi* 288-293

### Optoelectronics and optoelectronic devices

**Be-ion implanted p-n InSb diode for infrared applications. Modeling, fabrication and characterization**  
*V.V. Korotyeyev, V.O. Kochelap, S.V. Sapon, B.M. Romaniuk, V.P. Melnik, O.V. Dubikovskiy, T.M. Sabov* 294-306

### Sensors

**The role of shear modulus and viscosity of thin organic films on the adsorption response of QCM sensors**  
*Z.I. Kazantseva, I.A. Koshets, Yu.M. Shirshov, V.I. Kalchenko* 307-314

### Lectures, Presentations

(For subscribers only)

**To 100-year anniversary of Prof. M.F. Deigen**  
*B.D. Shanina* 315

**Inversion of spin levels in exchange-coupled pairs under combined time reversal**  
*I.I. Geru* 315

**Condensons and bicondensons in low-dimensional systems**  
*N.I. Kashirina* 316

**M.F. Deigen and electron-phonon interaction**  
*V.O. Kochelap* 316

### Information

**For contributors to SPQEO** 317-318