
Timetable

Monday, June 20 (Institute of Metal Physics)

08:00–11:30 Registration

11:30–12:40 **Opening Plenary Session**

12:40–13:40 Lunch

13:40–15:00 **Poster session 1 and 2**

15:00–19:00 Transfer to Lenevka &
Excursion to the “falling” tower of Nevyansk

20:00–22:00 *Welcome Party*

Tuesday, June 21 (Lenevka)

08:00–09:00 Breakfast

09:00–10:10 **Lasers and Optoelectronic Devices–I**

10:10–10:20 Break

10:20–11:30 **Lasers and Optoelectronic Devices–II**

11:30–12:10 Coffee Break

12:10–13:40 **Spin Related Phenomena in Nanostructures–I**

13:40–15:20 Lunch

15:20–17:00 **Transport in Nanostructures**

17:00–17:40 Coffee Break

17:40–18:20 **Excitons in Nanostructures**

18:20–19:30 Dinner

19:40–21:30 **Poster session 3**

Wednesday, June 22

08:00–09:00 Breakfast

09:00–10:00 **Spin Related Phenomena in Nanostructures–II**

10:00–10:10 Break

10:10–11:30 **Spin Related Phenomena in Nanostructures–III**

11:30–12:00 Coffee Break

12:00–13:50 **Nanostructure Technology–I**

14:00–15:30 Lunch

15:30–17:10 **Metal Nanostructures**

17:10–17:40 Coffee Break

17:40–19:10 **Microcavity and Photonic Crystals**

20:30–23:00 *Symposium Dinner*

Timetable

Thursday, June 23

08:00–09:00	Breakfast
09:00–14:00	<i>Excursion to the city of Nizhny Tagil</i>
14:00–15:30	Lunch
15:30–16:40	Nanostructure Devices
16:40–17:10	Coffee break
17:10–18:20	Infrared and Microwave Phenomena in Nanostructures–I
18:20–19:20	Dinner
19:20–20:00	Quantum Wells and Quantum Dots

Friday, June 24

08:00–09:00	Breakfast
09:00–10:30	Nanostructure Technology–II
10:30–10:40	Break
10:40–12:10	Infrared and Microwave Phenomena in Nanostructures–II
12:10–12:40	Coffee Break
12:40–13:40	Si-Ge Based Nanostructures
13:40–14:20	2D Electron Gas
14:20–15:50	Lunch
15:50–17:10	Nanostructure Characterization
17:10–17:40	Coffee Break
17:40–18:40	Closing Plenary Session
18:40–18:50	Young Scientist Award
18:50–19:00	Closing Remarks
19:00–20:00	Dinner

Saturday, June 25

07:30–09:00	Breakfast
10:00	Departure from Lenevka

Monday, June 20

Opening Plenary Session 11:30–12:40

- **Zh. Alferov**
Opening remarks
- OPS.01i **V.V. Ustinov**
Metal nanospintronics
- OPS.02i **M. Skolnick**
Ultrafast optical control of excitons and spins in single semiconductor quantum dots

Poster session 1 and 2 13:40–15:00

Tuesday, June 21

Lasers and Optoelectronic Devices I 09:00–10:10

- LOED.01i **N. Gordeev**
Spectral and spatial selection of transverse modes in edge-emitting lasers
- LOED.02o **S.A. Blokhin, N.A. Maleev, A.G. Kuzmenkov, J.A. Lott, M.M. Kulagina, Y.M. Zadiranov, A.G. Gladyshev, A.M. Nadtochiy, E.V. Nikitina, V.G. Tikhomirov, N.N. Ledentsov and V.M. Ustinov**
High-power single-mode bottom-emitting 960 nm VCSELs
- LOED.03o **A.M. Nadtochiy, S.A. Blokhin, A. Mutig, A.V. Savelyev, A.G. Kuzmenkov, M.V. Maximov, N.A. Maleev, N.N. Ledentsov, V.M. Ustinov and D. Bimberg**
Features of antiwaveguiding oxide-confined 980 nm VCSELs

Lasers and Optoelectronic Devices II 10:20–11:30

- LOED.04i **A.F. Tsatsulnikov, W.V. Lundin, A.V. Sakharov, E.E. Zavarin, S.O. Usov, A.E. Nikolaev, V.S. Sizov, A.E. Chernyakov, A.L. Zakgeim, N.A. Cherkashin and M.Hytch**
GaN-based monolithic white LEDs
- LOED.05o **L.V. Asryan, Yuchang Wu and R.A. Suris**
Carrier capture delay and modulation bandwidth in an edge-emitting quantum dot laser

- LOED.06o L. Shterengas, D.A. Firsov, *M.Ya. Vinnichenko*, L.E. Vorobjev, A.N. Sofronov, G.A. Melentyev, G. Kipshidze and G. Belenky
Dynamics of a photoluminescence in InGaAsSb/AlGaAsSb quantum wells

Spin Related Phenomena in Nanostructures I 12:10–13:40

- SRPN.01i *G. Gaudin*, I.M. Miron, T. Moore, H. Szambolics, S. Auffret, B. Rodmacq, L.D. Buda-Prejbeanu, A. Schuhl, S. Pizzini, J. Vogel, M. Bonfim and P. Gambardella
Rashba Spin-Orbit torques in ferromagnetic thin films
- SRPN.02o N. Friedenberger, S. Stienen, C. Möller, Z.A. Li, M. Spasova, F. Kronast, H. Dürr and *M. Farle*
Single nanoparticle hysteresis: influence of morphology
- SRPN.03o *M.S. Kuznetsova*, R.V. Cherbunin, I.Ya. Gerlovin, K. Flisinski, I.V. Ignatiev, M.Yu. Petrov, S.Yu. Verbin, D.R. Yakovlev, D. Reuter, A.D. Wieck and M. Bayer
Identification of optically induced nuclear spin transitions in (In,Ga)As/GaAs quantum dots
- SRPN.04o *M.V. Yakunin*, A.V. Suslov, S.M. Podgornykh, S.A. Dvoretzky and N.N. Mikhailov
Suppression of spin level coincidences under tilted magnetic fields in the HgTe quantum well as a manifestation of transitions into quantum Hall ferromagnetic phase

Transport in Nanostructures 15:20–17:00

- TN.01o *M.V. Entin* and L.I. Magarill
Conductivity of 2D multi-component electron gas partially-quantized by magnetic field
- TN.02o G.B. Galiev, *I.S. Vasil’evskii*, E.A. Klimov, D.S. Ponomarev, J. Požela, K. Požela, A. Sužiedėlis, V. Juciene, Č. Paškevič, S. Keršulis and V. Stankevič
Electron mobility and high-field drift velocity enhancement in InAlAs/InGaAs/InAlAs quantum well heterostructures
- TN.03o *P.S. Alekseev*
Tunneling Hall effect
- TN.04o *A.A. Greshnov*
Relevant quantum corrections to conductivity of two-dimensional electron gas at classically strong magnetic fields

TN.05o *A.V. Germanenko*, G.M. Minkov, O.E. Rut, A.A. Sherstobitov and I.V. Soldatov
Interaction correction to conductivity of double quantum well heterostructures near balance

Excitons in Nanostructures 17:40–18:20

EN.01o V.G. Lyssenko, V.Ya. Aleshkin, *L.V. Gavrilenko*, D.M. Gaponova, Z.F. Krasil'nik, D.I. Kryzhkov, D.I. Kuritsyn, S.M. Sergeev and C.B. Sorensen
Dynamics of exciton and trion photoluminescence in GaAs/Al(Ga)As quantum wells

EN.02o D.K. Loginov, E.V. Ubyivovk, *V.G. Davydov*, Yu.K. Dolgikh, Yu.P. Efimov, S.A. Eliseev, V.V. Petrov, O.A. Yugov and I.V. Ignatiev
Polariton wave dephasing in quantum well by external electric field

Poster Session 3 19:40–21:30

Wednesday, June 22

Spin Related Phenomena in Nanostructures II 09:00–10:00

SRPN.05o *P.M. Shmakov*, A.P. Dmitriev and V.Yu. Kachorovskii
Aharonov–Bohm interferometer as a spin polarizer

SRPN.06o J.-H. Shim, D. Nanto, *S.K. Oh* and D.-H. Kim
Nonlinear magnetic vortex dynamics in a ferromagnetic nanodisk under AC external magnetic field

SRPN.07o A. Dussaux, N. Locatelli, P. Bortolotti, J. Grollier, V. Cros, A. Fert, A.V. Khvalkovskiy, A.V. Krashennnikov, A.R. Safin, *K.A. Zvezdin*, A.K. Zvezdin, A. Fukushima, M. Konoto, H. Kubota, K. Yakushiji, S. Yuasa and K. Ando
Spin-torque vortex nano oscillators: from fundamentals to applications

Spin Related Phenomena in Nanostructures III 10:10–11:30

SRPN.08o *M.N. Dubovik*, B.N. Filippov and F.A. Kassan-Ogly
Surface anisotropy influence on nonlinear dynamics of Néel-type domain walls in magnetic films with in-plane anisotropy

SRPN.09o *B.A. Aronzon*, V.V. Rylkov, M.A. Pankov, V. Tripathi, K. Dhochak and K.I. Kugel
Ferromagnetic ordering in 2D semiconducting structures: GaAs/InGaAs/GaAs quantum wells with remote Mn δ -layer

- SRPN.10o *K.M. TsySar*, E.M. Smelova, D.I. Bazhanov and A.M. Saletsky
Magnetic properties of Pd-Fe nanowires. First principal study
- SRPN.11o *S.V. Yakovlev* and M.Yu. Petrov
Modeling of nuclei-induced bunching effect in quantum dots

Nanostructure Technology I

12:00–13:50

- NT.01o *Qi Wang*, Xiaomin Ren, Xin Guo, Tianhe Li, Pengyu Wang, Xia Zhang, Yongqing Huang, Xiaofeng Duan and Shiwei Cai
Over 1.3 μm emission from (B)InAs/GaAs quantum dots capped by InGaAs strain-reducing layer
- NT.02o *K.N. Astankova*, A.N. Aksenov, E.B. Gorokhov, I.A. Azarov, D.V. Marin and V.A. Volodin
New technologies for nano- and optoelectronics based on layers with varied optical parameters — GeO₂ films with Ge-nanoparticles
- NT.03o *K.N. Astankova*, E.B. Gorokhov, K.V. Bulah, A.A. Chouprik, A.I. Kuznetsov and A.V. Latyshev
GeO(s) films — new resist for nanolithography
- NT.04o *Jingwei Guo*, Xiaomin Ren, Hui Huang, Shiwei Cai, Xia Zhang, Xin Guo, Qi Wang and Yongqing Huang
Growth of n-doped and p-doped GaAs nanowires by Au-assisted metalorganic chemical vapor deposition: effect of dopants flux rates
- NT.05o *Yong Zhang*
Unconventional semiconductor superlattices — inorganic-organic hybrid nanostructures — with unusual electronic, optical and thermal properties

Metal Nanostructures

15:30–17:10

- MN.01i *Yu. Dobrovolskii*
Electrocatalytic properties of Pt nanostructures
- MN.02i *B. Heinrich*
Spin dynamics at the Fe/semiconductor interfaces and spin pumping transport studies using spin pumping in magnetic heterostructures
- MN.03o *V.A. Kosobukin*
Plasmonic nanowires as the tools for near-field magneto-optics and scanning microscopy: theory
- MN.04o *M.V. Sapozhnikov*, S.A. Gusev, V.V. Rogov, O.L. Ermolaeva, B.B. Troitskii and L.V. Khokhlova
Spectral magnitooptics of nanocorrugated ferromagnetic films

Microcavity and Photonic Crystals

17:40–19:10

- MPC.01i** *D.N. Krizhanovskii*, M. Sich, R. Hartley, A. Gorbach, D. Skryabin, E. Cerda, K. Biermann, R. Hey, P.V. Santos and M.S. Skolnick
Observation of bright polariton solitons in strongly coupled semiconductor macrocavities
- MPC.02o** *A.A. Bogdanov* and R.A. Suris
Whispering gallery modes of surface plasmon polaritons
- MPC.03o** *S.V. Lobanov*, T. Weiss, D. Dregely, H. Giessen, N.A. Gippius and S.G. Tikhodeev
Interaction of a point emitter with a gold Yagi–Uda nanoantenna array
- MPC.04o** *A.V. Sel’kin*, T.A. Ukleev, A. Yu. Men’shikova and N.N. Shevchenko
Elastic scattering of light in opaline photonic crystals under the multiple Bragg diffraction conditions

Thursday, June 23

Nanostructure Devices

15:30–16:40

- ND.01i** *H. Mariette*
II–VI nanostructures, with type-II band alignment, for photovoltaic
- ND.02o** J. Munarriz, F. Dominguez-Adame and *A.V. Malyshev*
Novel design of a graphene quantum interference transistor
- ND.03o** *V.K. Egorov*, E.V. Egorov
Radiating gathering enhancement of X-ray waveguide-resonator

Infrared and Microwave Phenomena in Nanostructures I 17:10–18:20

- IRMW.01i** V.V. Ustinov and *A.B. Rinkevich*
Electrodynamics of magnetophotonic crystals: opal-matrix with metallic and ferrite nanoparticles embedded
- IRMW.02o** *V.V. Popov* and O.V. Polischuk
Screening of plasmons in a two-dimensional electron system by lateral gates
- IRMW.03o** *A.V. Telegin* and Yu.P. Sukhorukov
Wide spectral observation of the magnetorefractive effect in the nanoscale $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$ thin-films

Quantum Wells and Quantum Dots

19:20–20:00

- QWQD.01o** *A.B. Talochkin* and I.B. Chistokhin
An electron-hole spectrum of Si/Ge structure with Ge quantum dots
- QWQD.02o** *A.A. Dubinov* and V.Ya. Aleshkin
The possibility of direct band Ge and Ge/InGaAs quantum wells in GaAs

Friday, June 24

Nanostructure Technology II

09:00–10:30

- NT.06i** E.V. Naumova, *V.Ya. Prinz*, S.V. Golod, V.A. Seleznev and V.V. Kubarev
New electromagnetic metamaterials based on precise metal-semiconductor shells
- NT.07o** *I.A. Kotin*, I.V. Antonova, R.A. Soots, V.A. Volodin and V.Ya. Prinz
Novel graphene — N-methylpyrrolidone monolayer hybrid material with tunable electronic property
- NT.08o** *V.G. Dubrovskii*
Elastic stress relaxation in nanostructures and its role in monolithic integration of III–V semiconductors on silicon and sapphire substrates
- NT.09o** *N.V. Sibirev*, G.E. Cirlin, Yu.B. Samsonenko, F. Jabeen, A.D. Bouravleuv, J.C. Harmand, M.V. Nazarenko, A.I. Khrebtov and V.G. Dubrovskii
New mode of pure zinc blende nanowire growth caused by the catalyst wetting

Infrared and Microwave Phenomena in Nanostructures II 10:40–12:10

- IRMW.04i** *M. Portnoi*
Carbon nanotubes and graphene as terahertz emitters and detectors
- IRMW.05o** *V.I. Sankin*, A.V. Andrianov, A. O.Zakhar'in and A. G.Petrov
Bloch oscillations and Terahertz electroluminescence of natural SiC superlattice
- IRMW.06o** *V.A. Kukushkin*
Amplification of far-infrared and THz pulses due to optical pulse conversion in semiconductor nanoheterostructures
- IRMW.07o** *Yu.P. Yakovlev*, N.D. Stoyanov, S.S. Molchanov and K.V. Kalinina
Application of mid-infrared LEDs and wideband photodiodes (1.6–2.4 μm) for detection of water in oil

Si-Ge Based Nanostructures

12:40–13:40

- SGBN.01o** *A.D. Andreev* and D.A. Williams
Theory of optical properties of ultra-thin Si layers for light emission applications
- SGBN.02o** *A.I. Yakimov*, A.I. Nikiforov, V.A. Timofeev, A.A. Bloshkin, V.V. Kirienko and V.A. Dvurechenskii
Intraband photocurrent spectroscopy of self-assembled Ge quantum dots on strained Si_{0.65}Ge_{0.35} layer
- SGBN.03o** *P.L. Novikov*, Zh.V. Smagina and A.V. Dvurechenskii
Formation of Ge nanoislands on pit-patterned Si substrates studied by molecular dynamics simulations

2D Electron Gas

13:40–14:20

- 2DEG.01o** *A.V. Germanenko*, G.M. Minkov, O.E. Rut, A.A. Sherstobitov, S.A. Dvoretzki and N.N. Mikhailov
Transport in wide HgTe/HgCdTe quantum wells with Mexican hat spectrum
- 2DEG.02o** *G.M. Minkov*, A.A. Sherstobitov, A.V. Germanenko and O.E. Rut
Interaction correction to conductivity of 2D structures with strong spin-orbit interaction: suppression of the triplet channel

Nanostructure Characterization

15:50–17:10

- NC.01o** *S. Ambrosini*, J.B. Wagner, T. Booth, A. Savenko, G. Fragiaco, P. Boggild and S. Rubini
In situ transmission electron microscopy analyses of thermally annealed self catalyzed GaAs nanowires grown by molecular beam epitaxy
- NC.02o** *M.A. Timofeeva*, N.V. Sibirev, L. Lugani, D. Ercolani, M.V. Nazarenko, L. Sorba and V.G. Dubrovskii
Characteristics of InAs-InSb heterostructured nanowires growth by chemical beam epitaxy: theory and experiment
- NC.03o** *V.M. Mikoushkin*, V.V. Bryzgalov, A.A. Zhuravleva and A.P. Solonitsina
Formation of GaAs_{1-x}N_x nanolayer on GaAs by manipulations with N₂⁺ and Ar⁺ ion beams
- NC.04o** Á. Nemesics, J. Balázs, *B. Pődör*, J. Makai and A. Stemmann
Photoluminescence studies of GaAs quantum nanostructures

Closing Plenary Session

17:40–18:40

CPS.01i

M. Dubina

Nanotechnology trends in medicine

CPS.02i

D.E. Dolzhenko, L.I. Ryabova, A.V. Nicorici and ***D.R. Khokhlov***Sensitive detectors of terahertz radiation based on $\text{Pb}_{1-x}\text{Sn}_x\text{Te(In)}$

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Young Scientist Award

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Zh. Alferov

Closing Remarks

Lasers and Optoelectronic Devices

- LOED.07p** *A.A. Dubinov, V.Ya. Aleshkin, T.S. Babushkina, A.A. Biryukov, M.N. Kolesnikov, S.M. Nekorkin and B.N. Zvonkov*
Power leaky-wave semiconductor laser with very narrow directional pattern
- LOED.08p** *A.A. Dubinov, V.Ya. Aleshkin, T.S. Babushkina, A.A. Biryukov, M.N. Kolesnikov, S.M. Nekorkin and B.N. Zvonkov*
Double frequency generation in two-cascade interband laser
- LOED.09p** *P.I. Kuznetsov, G.G. Yakushcheva, V.A. Jitov, L. Yu. Zakharov, V.I. Kozlovsky, D.E. Sviridov and M.D. Tiberi*
MOVPE grown ZnCdS/ZnMgS nanostructures and a longitudinal e-beam pumped UV laser based on them
- LOED.10p** *Yu.A. Morozov and M. Yu. Morozov*
Control of light polarization in a dual-wavelength vertical external cavity surface-emitting laser
- LOED.11p** *M.M. Zverev, N.A. Gamov, E.V. Zhdanova, D.V. Peregoudov, V.B. Studionov, A.A. Marmalyuk and M.A. Ladugin*
InGaAs/AlGaAs-nanostructure based pulse laser pumped by electron beam of 3.5–15 keV energy
- LOED.12p** *N.A. Viglin and V.V. Ustinov*
The prototype semiconductors maser at the spin-polarized conduction electrons
- LOED.13p** *M.M. Zverev, N.A. Gamov, E.V. Zhdanova, D.V. Peregoudov, V.B. Studionov, S.V. Ivanov, I.V. Sedova, S.V. Sorokin and P.S. Kop'ev*
The CdSe/ZnSe QD pulsed electron beam and optically pumped lasers emitted in yellow spectral range

Metal Nanostructures

- MN.05p** *O. Adiguzel*
Crystallographic nature of phase transitions in copper based shape memory alloys
- MN.06p** *N.V. Ershov, N.V. Dmitrieva, Yu.P. Chernenkov, V.A. Lukshina, V.I. Fedorov and A.P. Potapov*
Stress induced magnetic anisotropy in Finemet: its type, origin and relaxation
- MN.07p** *E.A. Kravtsov and V.V. Ustinov*
Intra- and interlayer magnetic order in metallic nanostructures as seen with neutrons and x-rays
- MN.08p** *V.V. Ustinov, M.A. Milyaev, T.P. Krinitsina and L.I. Naumova*
FeMn-based top spin valves with composite free layer
- MN.09p** *A.V. Burlakov, V.L. Gurtovoi, A.I. Ilin, A.V. Nikulov and V.A. Tulin*
Experimental investigations of the change with magnetic flux of quantum number in superconducting ring
- MN.10p** *A.P. Nosov, V.I. Osotov, I.V. Gribov, N.A. Moskvina, M.V. Ronkin, V.G. Vasiliev, E.V. Vladimirova and T.S. Karpova*
Magnetoelectric effect in oxide-based composite ferroelectric/ferromagnetic structures

Microcavity and Photonic Crystals

- MPC.05p** *V.G. Fedotov*
Opal-based photonic crystal heterostructures: multiple Bragg diffraction effects
- MPC.06p** *V.G. Fedotov and A.V. Sel'kin*
On dynamical diffraction theory in reflection and transmission spectroscopy of 3D photonic crystal films

Infrared and Microwave Phenomena in Nanostructures

- IRMW.08p** *B.A. Gizhevskii, E.V. Mostovshchikova, N.N. Loshkareva, V.R. Galakhov, S.V. Naumov, N.A. Ovechkina, N.V. Kostromitina and A. Buling*
Midinfrared absorption spectra of nanostructured copper oxides Cu_2O and CuO
- IRMW.09p** *G.S. Makeeva, O.A. Golovanov, A.B. Rinkevich and M. Pardavi-Horvath*
Propagation of electromagnetic waves in 3D opal-based magnetic nanocomposites at microwave frequencies
- IRMW.10p** *A.B. Rinkevich, D.V. Perov, M.I. Samoylovich, S.M. Klesheva and E.A. Kuznetsov*
Magnetic antiresonance in 3D-nanocomposites with transition-metal nanoparticles

Nanostructure Characterization

- NC.05p** *M.S. Dunaevskii, P.A. Alexeev, M. Lepsa, G. Cirlin, Y. Samsonenko, M. Tchemycheva and A.N. Titkov*
Investigation of electrical properties of individual GaAs-nanowires by scanning probe microscopy methods
- NC.06p** *V.Yu. Kolosov*
Novel “transrotational” structure on the scale micro–meso–nano revealed by transmission electron microscopy
- NC.07p** *V.Yu. Kolosov, L.M. Veretennikov and K.L. Schwamm*
Electron microscopy of amorphous — crystalline local switching for phase change materials accompanied by the formation of unusual transrotational nanostructure
- NC.08p** *D.M. Korotin, S. Bartkowski, E.Z. Kurmaev, M. Neumann, E.B. Yakushina, R.Z. Valiev and S.O. Cholakh*
XPS spectra and surface characterization of nanostructured titanium implants
- NC.09p** *Y. Kulchin, V. Dzyuba and V. Milichko*
The nonlinear optical properties of suspensions of dielectric $\alpha\text{-Al}_2\text{O}_3$ nanoparticles. Theory and experiment
- NC.10p** *S.V. Savinov, A.I. Oreshkin, S.I. Oreshkin and V.I. Panov*
Electronic structure of $\text{Ge}(111)\text{-}(2 \times 1)$ surface in the presence of doping atoms. Ab initio analyses of STM data
- NC.11p** *M.D. Sharkov, K.Ju. Pogrebitsky, M.E. Boiko and S.G. Konnikov*
Modern achievements in X-ray spectra measurement and data treatment

- NC.12p** *I.V. Shtrom, S.V. Karpov, M.B. Smirnov, B.V. Novikov, A.N. Smirnov, G.E. Cirlin, A.D. Bouravleuv and Yu.B. Samsonenko*
Raman spectroscopy study of polymorph structure of GaAs nanowires
- NC.13p** *D.E. Sviridov, V.I. Kozlovsky and N.V. Zabavin*
Visualization of the CdS/ZnSSe MQW heterostructure by scanning spreading resistance microscopy
- NC.14p** *A.B. Talochkin*
Folded acoustic phonons in Si/Ge superlattices with Ge quantum dots
- NC.15p** *N.M. Ushakov, D.M. Kulbatskii, I.D. Kosobudskii, P.A. Muzalev and V.Ya. Podvigalkin*
Thermo-optical hysteresis properties of transparent dielectric metamaterials based on polymer nanocomposites
- NC.16p** *A.S. Zaichenko, S.A. Tsarev, P.L. Titov, A.V. Kirillov, S.A. Shegoleva, V.G. Kuryaviy and N.B. Kondrikov*
The investigation of impedance parameters, texture and self-organization of oxide formations on titanium and aluminum surfaces

Poster Session 2

(Monday, June 20, 13:40–15:00)

Spin Related Phenomena in Nanostructures

- SRPN.12p** *Hong-Guang Piao, Dong-Hyun Kim, and Dong-Seok Yang*
Spin wave modes in a ferromagnetic nanoelement array
- SRPN.13p** *H.-G. Piao, J.-H. Shim, Y. Zhang, S.-C. Yu and D.-H. Kim*
Spin wave filtering using asymmetrically notched wires
- SRPN.14p** *H.-G. Piao, S.-H. Lee, J.-H. Shim, D.-S. Yang, S.-C. Yu, S.K. Oh and D.-H. Kim*
Effect of the finite temperature on the magnetic domain wall depinning behavior in notched ferromagnetic nanowires
- SRPN.15p** *I.A. Kokurin*
Electron energy spectrum and persistent current in non-perfect one-dimensional quantum ring with spin-orbit interaction
- SRPN.16p** *I.I. Lyapilin*
Spin Hall effect induced by sound
- SRPN.17p** *S.G. Ovchinnikov, S.N. Varnakov, A.S. Fedorov, S.A. Lyaschenko and I.A. Yakovlev*
Characterization and physical properties of the iron silicide nanostructures

Transport in Nanostructures

- TN.06p** *A.B. Odobesko and S.V. Zaitsev-Zotov*
Low-temperature spectroscopy of Si(111)7 × 7 surface in slightly-doped crystals
- TN.07p** *V.A. Petrov and A.V. Nikitin*
Electric-field control of electron interference effects in semiconductor 1D nanostructures

- TN.08p** *A.A. Sherstobitov, G.M. Minkov, A.V. Germanenko, O.E. Rut, I.V. Soldatov and B.N. Zvonkov*
Analysis of homogeneity of 2D electron gas at decreasing of electron density
- TN.09p** *I.V. Soldatov, A.V. Germanenko, G.M. Minkov, O.E. Rut and A.A. Sherstobitov*
Energy relaxation rate of 2D hole gas in GaAs/InGaAs/GaAs quantum well within wide range of conductivity
- TN.10p** *V.A. Stuchinsky*
A model to describe the hump-like feature in CV-characteristics of MOS capacitors with oxide-hosted nanoparticles
- TN.11p** *G.V. Tikhomirova, A.N. Babushkin and Y.Y. Volkova*
Conductivity of nanocrystalline carbon materials (fullerite, graphite and single-wall carbon nanotubes) at pressures 20–50 GPa
- TN.12p** *D.A. Tsukanov, M.V. Ryzhkova, D.V. Gruznev, A.N. Matetsky, L.V. Bondarenko, E.V. Borisenko, A.V. Zotov and A.A. Saranin*
Electrical conductance of C_{60} -adsorbed $Si(111)\alpha-\sqrt{3} \times \sqrt{3}$ -Au surface

Nanostructure Technology

- NT.10p** *S.V. Alyshev, A.O. Zabezhaylov, V.I. Kozlovsky and E.M. Dianov*
Strained $A^{II}B^{VI}$ nanostructures as active media for visible range ring resonator microlasers
- NT.11p** *G.A. Kachurin, S.G. Cherkova, D.V. Marin, V.G. Kesler, V.A. Volodin and V.A. Skuratov*
Luminescent nanostructures formed in stoichiometric SiO_2 layers by irradiation with 700 MeV Bi ions
- NT.12p** *A.S. Kamzin, Fulin Wei, V. Ganeev and L.D. Zaripova*
Microstructure and magnetic properties of FePt films annealed in an external magnetic field
- NT.13p** *A.G. Nastovjak, I.G. Neizvestny and N.L. Shwartz*
Monte Carlo simulation of Ge–Si nanowire radial heterostructure formation
- NT.14p** *M.V. Nazarenko, N.V. Sibirev, S.M. Suturin and V.G. Dubrovskii*
Numerical study of fluctuation-induced effects during first-order phase transitions
- NT.15p** *A.I. Nikiforov, V.A. Timofeev, S.A. Teys, A.K. Gutakovsky and O.P. Pchelyakov*
Ge nanoclusters grown on Ge_xSi_{1-x} layer
- NT.16p** *S.I. Petrov, A.N. Alexeev, D.M. Krasovitsky and V.P. Chaly*
Growth of high quality III-N heterostructures using specialized MBE system
- NT.17p** *A.E. Tyurnina, V.Ya. Shur, D.K. Kuznetsov, E.A. Mingaliyev and R.V. Kozin*
Synthesis of silver nanoparticles by laser ablation in liquid
- NT.18p** *V.A. Volodin, K.O. Bugaev, D.V. Marin, A.A. Zelenina, D.V. Nesterov, A.Kh. Antonenko, G.N. Kamaev, S.A. Kochubei, A.G. Cherkov, A.K. Gutakovsky, L.I. Fedina, M.A. Neklyudova, A.V. Latyshev and A.Misiuk*
Laser-assistant and furnace annealing crystallization of silicon-rich nitride based and Si– SiO_2 multilayer nanostructures

NT.19p *Xu Zhang, V.G. Dubrovskii, N.V. Sibirev and Xiaomin Ren*
Nanoislands nucleation on vicinal substrate

Si-Ge Based Nanostructures

- SGBN.04p *P. Kuchinskaya, V.A. Zinovyev, A.V. Nenashev, V.A. Armbrister and A.V. Dvurechenskii*
The electronic structure of SiGe quantum rings
- SGBN.05p *Yu.V. Luniakov*
First principle simulations of the vacancy mediated surface diffusion of Si-defect on the Me induced $\text{Si}(111)\sqrt{3} \times \sqrt{3}$ surface,
Me = Al, Ga, In, Pb
- SGBN.06p *Zs.J. Horváth, P. Basa, T. Jászi, K.Z. Molnár, A.E. Pap, G. Molnár, L. Dobos, L. Tóth, B. Pécz, B. Pődör and P. Turmezei*
Charging properties of Si_3N_4 based structures with embedded Si or Ge nanocrystals: Experiments and simulation
- SGBN.07p *V.A. Zinovyev, A. Marzegalli, F. Boioli, R. Gatti, F. Montalenti, L. Miglio, M. Stoffel, T. Merdzhanova, L. Wang, F. Pezzoli, A. Rastelli and O.G. Schmidt*
Phenomenon of dislocation nanoscale ordering during cyclic growth of three-dimensional SiGe islands on Si(100)
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Poster Session 3

(Tuesday, June 21, 19:40–21:30)

Excitons in Nanostructures

- EN.03p *V.A. Maruschyuk, B.S. Kulinkin, V.G. Davydov and V.A. Gaisin*
Spectral features in reflection of thick quantum wells
- EN.04p *V.F. Agekyan, G. Karczewski, E.S. Moskalenko, A.Yu. Serov and N.G. Filosofov*
Exciton luminescence in CdTe/MnTe/CdMgTe quantum well structures
- EN.05p *V.G. Davydov, S.V. Poltavtsev, V.V. Ovsyankin, A.V. Trifonov, Yu.K. Dolgikh, S.A. Eliseev, Yu.P. Efimov and V.V. Petrov*
Radiative decay rate of excitons in high-quality InGaAs quantum wells
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Nanostructure Devices

- ND.04p *V.V. Aristov and A.V. Nikulov*
The fundamental obscurity in quantum mechanics.
Why it is needed to shout “wake up”
- ND.05p *A.L. Despotuli, A.V. Andreeva and V.V. Aristov*
Towards advanced capacitive nanostructures for deep-sub-voltage carbon nanoelectronics and self-powered microsystems
- ND.06p *A.V. Kopylov, A.V. Prinz and V.Y. Prinz*
A novel approach to the development of electrostatic nanoactuators and nanoactuator-based devices:
modeling and experiment
-

- ND.07p** *I.P. Soshnikov, D.E. Afanas'ev, V.A. Petrov, G.E. Cirlin, A.D. Bouravleuv, Yu.B. Samsonenko, A.I. Khrebtov, E.M. Tanklevskaya and I.A. Seleznev*
Piezoelectric effect in GaAs nanowires
- ND.08p** *A.B. Vorob'ev, A.V. Chesnitsky, E.V. Ilyushina, A.I. Toropov and V.Ya. Prinz*
Three-axis Hall sensor based on strained modulation doped semiconductor shells

Quantum Wells and Quantum Dots

- QWQD.03p** *D.S. Abramkin, M.A. Putyato and T.S. Shamirzaev*
Energy structure of novel GaSb/GaP quantum dots system
- QWQD.04p** *V. Chernov, J. Argüelles-Campoy, T. Pipers, R. Meléndrez and M. Barboza-Flores*
Effect of gamma irradiation on optical absorption and photoluminescence in borosilicate glasses doped with CdS-CdSe nanoparticles
- QWQD.05p** *B.S. Kulinkin, V.G. Davydov and V.A. Gaisin*
Temperature dependence of luminescence in multilayer InAs/AlAs heterostructures
- QWQD.06p** *A.A. Dubinov, V.Ya. Aleshkin, K.E. Kudryavtsev, A.N. Yablonskiy and B.N. Zvonkov*
The observation of direct band photoluminescence from Ge/GaAs heterostructures with Ge quantum well
- QWQD.07p** *B.S. Kulinkin, V.G. Davydov and V.A. Gaisin*
Optical properties of CdSe, CdS, CdSeS spherical nanocrystals in a fluorophosphates matrix
- QWQD.08p** *V.N. Kats, V. P. Kochereshko, A.V. Platonov, G.E. Cirlin, A.D. Bouravleuv, Yu.B. Samsonenko, L. Besombes and H. Mariette*
GaAs quantum dots embedded into the AlGaAs nanowires
- QWQD.09p** *V. Dneprovskii, M. Kozlova, A. Smirnov, E. Zhukov and T. Wumaier*
Two-photon absorption of excitons in semiconducting quantum dots
- QWQD.10p** *B.S. Kulinkin, V.G. Davydov and V.A. Gaisin*
Photoelectric properties of InAs/AlAs heterostructures
- QWQD.11p** *K.A. Barantsev, A.N. Litvinov, B.G. Matisov, G.A. Kazakov and Yu.V. Rozhdestvensky*
Phase-sensitive dependence of the dark resonances in double tunneling-coupled quantum wells
- QWQD.12p** *X. Liu, V.G. Dubrovskii, N.V. Sibirev and X. Ren*
Kinetic properties of InAs quantum dots grown on vicinal GaAs substrates
- QWQD.13p** *A.A. Lyamkina, S.P. Moshchenko, D.S. Abramkin, D.V. Dmitriev, D.V. Gulyaev, T.S. Shamirzaev and A.I. Toropov*
Indium dose dependence of carrier transfer in InAs/AlGaAs quantum dots system
- QWQD.14p** *A.V. Malyshev*
Controlling electro-optical bistability of plasmonic systems at nanoscale
- QWQD.15p** *S.V. Morozov, V.I. Gavrilenko, A.V. Antonov, V.V. Romyantsev, A.A. Dubinov, O. Drachenko, S. Winnerl, H. Schneider and M. Helm*
Investigation of photoexcited carriers lifetime in narrow-gap $\text{Hg}_y\text{Cd}_{1-y}\text{Te}/\text{Cd}_{1-x}\text{Hg}_x\text{Te}$ QW heterostructures by means of terahertz pump-probe technique

- QWQD.16p** *A.V. Novikov, D.V. Yurasov, M.V. Shaleev, N.D. Zakharov and P. Werner*
Features of Ge(Si)/Si(001) self-assembled island nucleation in multilayer structures
- QWQD.17p** *D.M. Samosvat, G.G. Zegrya and O.P. Chikalova-Luzina*
Resonant nonradiative energy transfer between quantum dots
- QWQD.18p** *A. Reznitsky, A. Klochikhin and S. Permogorov*
Temperature quenching of PL intensity in self-organized ZnTe/CdTe/ZnTe quantum dots
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Nanostructures and Life Sciences

- NLS.01p** *M.A. Parashchenko, N.V. Vandisheva, V.V. Kirienko, N.S. Filippov and S.I. Romanov*
Microchannel resistor sensor for liquid analysis
- NLS.02p** *K.A. Mozul, A.S. Kamzin, L.P. Ol'khovik and M.V. Tkachenko*
Nanodispersed ferrite material. Technology. Magnetic state
- NLS.03p** *N.V. Vandysheva, E.V. Dmitrienko, I.A. Pyshnaya, A.A. Lomzov, D.V. Pyshnyi and S.I. Romanov*
Optical method of biological substance analysis based on silicon microchannel matrix