

Poster Session I, April 3, 2018

Crystal Growth and Structural Properties of Semiconductor Materials & Nanostructures; Lasers, Solar Cells and Other Optoelectronic Devices; Other Aspects of Nanotechnology

1-01 Model of the droplet epitaxial growth of In nanostructures on nanopatterned GaAs substrates

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1-02 Investigation on structural transitions of graphenes into diamond polymorphs at high pressure

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1-03 Investigation of Titanium Oxide Film on Sapphire Substrate for Gas Sensor

*Yulia Klunnikova, Y. Klunnikova, S. Malyukov, A. Sayenko, M. Tolstunov
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1-04 The effect of the temperature difference between the anode and the electrolyte on the anodic zirconia structure

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1-05 Study on the dissolution and growth of KDP crystals

*Biljana Maksimovic,
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1-06 The use of SiC/Si substrates for III-V nanostructures MBE growth

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1-07 Formation of hexagonal silicon inclusions in Si-based systems

*Alena Nikolskaya, A. Nikolskaya, D. Korolev, A. Mikhaylov, A. Belov, A. Sushkov, D. Pavlov, D. Tetelbaum
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1-08 Zirconium coatings obtained by electro-spark alloying

*Marina Fomina,
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1-09 Quantum dot based superstructures: self-assembly dynamics

*Dominika Volgina,
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*Alexander Uvarov, A. Uvarov, B. Anton, A. Gudovskikh
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1-11 Structure of fluorographene and its polymorphous varieties

*Maxim Belenkov,
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1-13 Modification of the surface morphology and structural transformations of amorphous Ge₂Sb₂Te₅ thin films after fs-laser exposure.

*Viktoria Glukhenkaya, V. Glukhenkaya, P. Lazarenko, A. Polokhin, A. Sherchenkov, M. Mikhailova, S. Kozyukhin, M. Smayev
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1-15 Synthesis of bismuth nanowires for thermoelectric applications

*Andrei Lazavenka,
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*Konstantin Smirnov,
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*Sergei Chebotarev,
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1-18 Comprehensive study of optical and physical properties of the InGaN nanocolumns grown on Si(111) and por-Si/Si(111) substrates by plasma-assisted molecular beam epitaxy

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1-19 Investigation of gas-sensitive properties of the arrays of zinc oxide nanorods to carbon oxide (II)

*Aleksandra Starnikova, A. Kamencev, K. Abdullin, V. Petrov
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1-24 Research of influence Al on luminescence and dark currentvoltage characteristics of InAs/GaAs heterostructures

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1-25 Doping of GaP layers grown by molecular-beam epitaxy on silicon substrates

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1-28 Investigation of nucleation and evolution of In/GaAs(001) nanostructures during droplet epitaxy

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1-29 Surface preparation technique of Silicon Carbide substrates by electron beam processing

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Roman Evstigneev, R. Evstigneev, A. Dubavik, P. Parfenov, S. Cherevko, V. Osipova, T. Kormilina, E. Ushakova, A. Fedorov, A. Baranov, N. Nosenko

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1-35 Size effects of electro-physical parameters in LiNbO₃ thin films

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1-36 GaN nanostructures grown on Si(111) by PA-MBE via droplet epitaxy: SEM and HRTEM study

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1-37 Effect of substrate temperature on the properties of silicon oxide films obtained by plasma chemical vapor deposition

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1-40 Tuning the morphology of Ga-catalyzed GaP nanowires in gas source molecular beam epitaxy

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1-45 Genetic algorithm application for solving X-ray diffraction inverse problem

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1-46 Stress-free growth of AlN nucleation layers on c-Al₂O₃ by plasma-assisted molecular beam epitaxy

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1-47 Fabrication method of the patterned mask for controllable growth of low-dimensional semiconductor nanostructures

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1-48 MBE growth of GaAs nanowires with modulated crystal structure

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3-01 Effect of modulation *p*-doping level on multi-state lasing in InAs/InGaAs quantum dot lasers

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3-02 Electrically pumped microdisk lasers with semitransparent conducting pyrolytic carbon film

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3-03 Optical properties of In_{0.8}Ga_{0.2}As quantum dots in GaAs photovoltaic convertors

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3-04 A method for synchronous scanning of local photoelectric properties and Raman spectra of GaN/SiC/Si

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3-05 The synthesis and research of functional thin-film elements used in solar cells of spacecraft

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3-06 Spectral Approach to Li-ion Batteries Degradation Rate Estimation

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3-07 Perovskite - new material for thin-film solar cells

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3-08 Isolation and optoelectronic characterization of Si solar cells microstructure defects

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3-09 Investigation of chemical pre-treatment effect on silicon wafer texturing uniformity for solar cells manufacturing

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3-10 The optical method for condition control of flowing medium

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3-11 Influence of *p*-type contact topography on characteristics of microdisk and microring lasers

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3-17 All-oxide heterojunction solar cells formed by magnetron sputtering

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3-20 Diagnostics of inhomogeneities of parameters of light-emitting heterostructures by the photoelectric method

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3-21 Influence of coating layers on characteristics of microdisk lasers with InAs/InGaAs quantum dots active region

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3-22 Influence of hydrogen plasma passivation on electrical and spectral characteristics of GaN NWs/ Si solar cells

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3-23 Mixed halide perovskite light emitting solar cell

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3-25 Study of the effect of carbon-containing gas pressure on the geometric parameters of an array of carbon nanostructures for the creation of highly efficient solar photoelectric devices

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*Ivan Morozov, I. Morozov, A. Gudovkikh, D. Kudryshov, K. Kotlyar, K. Shubina
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*Yuri Akhmerov,
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3-45 Lateral mode engineering in diode lasers based on coupled ridges

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7-01 Metal-assisted photoenhanced wet chemical etching of GaN epitaxial layers

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7-02 Measurement of the quantum yield of aqueous suspensions luminescent carbon dots

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7-04 The nanosecond studies of granular carbon nanostructures based on high temperature superconductors

*Mislmat Faradzheva, M. Faradzheva, V. Prikhodko, O. Konkov, S. Faradzhev
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*Alexander Kozlowski,
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*Roman Kleimanov,
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*Marina Dermeneva,
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*AMMAR ALALWANI,
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*Nadejda Begletsova, N. Begletsova, E. Selifonova, R. Chernova, A. Chumakov, V. Sevostyanov, E. Glukhovskoy
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Alexander Mikhaylov, A. Mikhaylov, P. Alekseev, M. Dunaevskiy, S. Slipchenko, A. Podoskin

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Pavel Palkanov, P. Palkanov, A. Fomin, I. Rodionov

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Sergey Mezentsov, S. Mezentsov, V. Koshuro, A. Fomin, I. Rodionov

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7-18 Modified multicapillary glass structure for SERS application

Alexey Markin, A. Markin, N. Markina, A. Zakharevich, Y. Skibina, I. Goryacheva

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7-20 High robustness of epitaxial 4H-SiC graphene to oxidation processes

Konstantin Katin, K. Katin, V. Prudkovskiy, M. Maslov, P. Puech, R. Yakimova, G. Deligeorgis

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7-21 Ohmic contacts to n-type 6H-SiC

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7-23 Composition-dependent conductivity of InGaAs nanowires

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7-25 Nanoscale profiling of Ga(Al,In)As epitaxial structures by the local anodic oxidation

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7-30 Adsorption of the Methylene Blue Dye on Carbon Nanocomposites Under Dynamic Conditions: A Kinetic Study

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7-31 Kinetics of the Adsorption of Synthetic Dyes on a Polyhydroquinone/Graphene Carbon Nanocomposite

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7-32 Kelvin probe microscopy of MoSe₂ monolayers on graphene

*Bogdan Borodin, B. Borodin, M. Dunaevskiy, F. Benimetskiy, S. Lebedev, A. Lebedev, P. Alekseev
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7-33 Photosensitive heterostructures based on island-grid films and nanoporous matrices and sulphide nanostructures

*Hanna Zakhlebayeva, H. Zakhlebayeva, N. Bogomazova, A. Pligovka, A. Murashkevich, T. Galkovsky, G. Gorokh
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7-34 Computer simulation of aerosol nanoparticles focusing and deposition process for functional microstructure production

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7-36 Mask coating formation by focused ion beams method for plasma-chemical etching

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7-37 The formation of probes for specialized modes of scanning probe microscopy by the method of focused ion beams

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Sergei Filippov,

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7-44 The electrochemical deposition of silicon - carbon thin films from organic solution

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7-45 Investigation the photoluminescence spectra of CdSe quantum dots Langmuir monolayer

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7-46 Investigation of the gas sensitivity of copper-containing PAN films by methods of quantum chemical calculations and molecular modeling

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7-47 Anharmonic Bloch oscillations in electrically biased superlattices

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Konstantin Ivanov,

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Konstantin Morozov,

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7-50 Investigation of polymer films based on CNT deposited on metal surfaces to protect against electrochemical corrosion and cavitation

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7-51 Effect of carrier localization on performance of coupled large optical cavity diode lasers

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