



PCNSPA

CONFERENCE 2016

SAINT PETERSBURG, RUSSIA

The PCNSPA Conference 2016 - Photonic Colloidal Nanostructures:
Synthesis, Properties, and Applications

Holiday Inn St. Petersburg Moskovskye Vorota Hotel,
27th June - 1st July 2016, St. Petersburg, Russia

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Programme

Registration desk working hours and location:

Date	Working hours	Location
Saturday, 25 June	12:00 – 18:00	Room Stenberg (3rd floor)
Sunday, 26 June	09:00 – 18:00	Moskovsky Congress Hall Lobby (1st floor)
Monday, 27 June	09:00 – 17:00	Moskovsky Congress Hall Lobby (1st floor)
Tuesday, 28 June - Thursday, 30 June	09:00 – 19:00	Moskovsky Congress Hall Lobby (1st floor)
Friday, 1 July	09:00 – 15:00	Room Stenberg (3rd floor)

Conference halls:

PCNSPA Conference room - Pasternak room (3rd floor)

Coffee breaks and Poster session - Mendelson lounge (3rd floor)

27 June, Monday

09.00 - 17.00 Registration

11.00 - 13.40 Opening and Plenary Session of the International Congress "Lasers and Photonics 2016" Moskovsky Congress Hall, 1st floor)

18.00 - 21.00 Welcome reception (Moskovsky Congress Hall, 1st floor)

28 June, Tuesday

10.00 - 10.10 Opening of the PCNSPA Conference 2016

<i>Chair:</i> Yurii K. Gun'ko		
10.10 - 10.50	M. V. Artemyev Minsk, Belarus	<i>A₂B₆ Colloidal Quantum Wells: Synthesis, Structure, and Optical Properties</i>
10.50 - 11.30	A. V. Rodina St. Petersburg, Russia	<i>Magnetic Properties of Nonmagnetic Nanostructures: Dangling Bond Magnetic Polaron in CdSe Nanocrystals</i>
11.30 - 11.50 Coffee break		
11.50 - 12.30	U. Woggon Berlin, Germany	<i>Excitons in Colloidal 2D CdSe Nanocrystals</i>
12.30 - 12.50	R. Krahne Genova, Italy	<i>Confined acoustic phonons in colloidal nanorod heterostructures investigated by non-resonant Raman spectroscopy and finite elements simulations</i>
12.50 - 13.10	F. Moro Nottingham, UK	<i>Electron spin coherence near room temperature in magnetic colloidal quantum dots</i>

13.10 - 14.30 Lunch break

<i>Chair:</i> Gleb B. Sukhorukov		
14.30 - 14.50	G. Sirigu Milano, Italy	<i>Origin of double luminescence in giant PbS/CdS core/shell nanoparticles by ultrafast spectroscopy</i>
14.50 - 15.10	P. Linkov Moscow, Russia	<i>CdSe/ZnS/CdS/ZnS QDs with advanced two-photon properties for tumor diagnosis and treatment</i>
15.10 - 15.30	S. V. Dayneko Moscow, Russia	<i>A highly efficient white light-emitting diode based on two-component polyfluorene/quantum dot composite</i>
15.30 - 15.50	A. Girard Lyon, France	<i>Acoustic vibrations of 2D atomic flat nanoplatelets for nanobalance application</i>
15.50 - 16.10 Coffee break		
16.10 - 16.30	A. V. Rodina St. Petersburg, Russia	<i>Linear polarization memory effect from ensemble of colloidal nanostructures</i>
16.30 - 16.50	E. A. Slyusareva Krasnoyarsk, Russia	<i>Synthesis and properties of submicron chitosan-based particles doped with CdTe and CdSe/ZnS quantum dots</i>
16.50 - 17.10	A. A. Golovatenko St. Petersburg, Russia	<i>Exciton spin polarization in colloidal CdSe nanoplatelets in strong magnetic fields</i>

29 June, Wednesday

<i>Chair:</i> Alexander Eychmüller		
10.00 - 10.40	B. Chaudret Toulouse, France	<i>Organometallic Approach to Quantum Dots: a Way to Control Surface Properties</i>
10.40 - 11.20	P. O'Brien Manchester, UK	<i>Novel Approaches to Complex Quantum Dot Structures</i>
11.20 - 11.40 Coffee break		
11.40 - 12.00	S. Lee Seoul, Korea	<i>The Exciton Generation, Transport, and Photoemission in Quantum Dots, Thin Flexible RGB-, White-, and UV- Quantum Dot Light-Emitting Devices</i>
12.00 - 12.20	F. Palazon Genova, Italy	<i>Perovskite quantum dots as UV-to-white color conversion materials for LEDs</i>
12.20 - 12.40	E. A. Baquero Toulouse, France	<i>New Approach for the Synthesis of InP@ZnS Quantum Dots</i>
12.40 - 13.00	A. A. Ezhov Moscow, Russia	<i>Monochelic copolymers as a tool for producing high concentrations of nanoparticles in liquid crystal composites</i>

13.00 - 14.20 Lunch break

<i>Chair:</i> Paul O'Brien		
14.20 - 15.00	U. Banin Jerusalem, Israel	<i>Dimensionality Matters: Dimensionality Effects on Optoelectronic Behavior of Semiconductor Nanocrystals</i>
15.00 - 15.20	F. Purcell-Milton Dublin, Ireland	<i>Ion treatments of colloidal quantum dots: Effects upon structure and photoluminescence</i>
15.20 - 15.40	E. N. Bodunov St. Petersburg, Russia	<i>FRET mechanism of the stretched exponential (Kohlrausch) luminescence decay of colloidal semiconductor quantum dots at room-temperature</i>
15.40 - 16.00	A. O. Orlova St. Petersburg, Russia	<i>Energy transfer in hybrid structures based on Quantum Dots</i>
16.00 - 16.20	I. V. Martynenko St. Petersburg, Russia	<i>Non-radiative Energy Transfer in Complexes of Quantum Dots with Multiple Tetrapyrrole Acceptors</i>
16.20 - 18.00	Poster session + Special evening coffee	

30 June, Thursday

<i>Chair:</i> Uri Banin		
10.00 - 10.40	A. L. Rogach Hong Kong	<i>Combination of Photo-induced Alignment and Self-assembly to Realize Polarized Emission from Ordered Semiconductor Nanorods</i>
10.40 - 11.20	G. B. Sukhorukov London, UK	<i>Polyelectrolyte Assembly on Modulated Surfaces: Tool for Fabrication of Defined Fluorescent Nanoparticles and Periodic Colloidal Structures</i>
11.20 - 11.40 Coffee break		
11.40 - 12.00	V. A. Loiko Minsk, Belarus	<i>Optical properties of periodic, quasiperiodic and aperiodic sequences of particulate monolayers</i>
12.00 - 12.20	A. S. Tsipotan Krasnoyarsk, Russia	<i>Self-assembly of colloidal semiconductor quantum dots controlled solely by laser-induced interaction</i>
12.20 - 12.40	E. V. Ushakova St. Petersburg, Russia	<i>Optical Anisotropy of CdSe Quantum Dots Supercrystals</i>
12.40 - 13.00	A. S. Merekalov Moscow, Russia	<i>Control of photoluminescence of quantum dots by liquid crystal polymer matrix</i>

13.00 - 14.20 Lunch break

<i>Chair:</i> Bruno Chaudret		
14.20 - 15.00	I. Nabiev Reims, France	<i>Quantum Dot-based Hybrid Nanostructures for Advanced Single- and Multi-photon Imaging and Diagnostic</i>
15.00 - 15.40	W. J. Parak Marburg, Germany	<i>Interaction of Colloidal Nanoparticles with Cells</i>
15.40 - 16.00 Coffee break		
16.00 - 16.20	O. S. Kulakovich Minsk, Belarus	<i>Plasmonic Structures for Water Analysis: the case of Bromate</i>
16.20 - 16.40	V. A. Oleinikov Moscow, Russia	<i>Effects of plasmon silver and exciton semiconductor nanoparticles on the photocycle of bacteriorhodopsin in membranes of Halobacterium salinarum</i>
16.40 - 17.00	A. M. Yashchenok Saratov, Russia	<i>SERS Substrate Based on Microparticles and Polymer Nanofibers Enables Detection of Pure Molecules as well as Intact Cells</i>
17.00 - 17.20	V. A. Krivenkov Moscow, Russia	<i>Resonance transfer of one- and two-photon excitations in quantum dot-bacteriorhodopsin complexes</i>

1 July, Friday

<i>Chair:</i> Andrey L. Rogach		
10.00 - 10.40	A. Eychmüller Dresden, Germany	<i>Superstructures from Colloidal Nanocrystals</i>
10.40 - 11.20	Yu. K. Gun'ko Dublin, Ireland	<i>Optically Active Quantum Dots</i>
11.20 - 11.40 Coffee break		
11.40 - 12.00	A. Dubavik St. Petersburg, Russia	<i>High quality mixed QD-salt crystals</i>
12.00 - 12.20	S. Naskar Hannover, Germany	<i>Synthesis and Optical Properties of Aerogels from Tailored Nanocrystals</i>
12.20 - 12.40	M. V. Mukhina St. Petersburg, Russia	<i>Chiroptical activity of aligned ensemble of CdSe/CdS quantum dot-in-rods</i>
12.40 - 13.00	A. S. Baimuratov St. Petersburg, Russia	<i>Optical activity of helix quantum-dot supercrystals</i>

13.00 - 14.20 Lunch break

<i>Chair:</i> Ulrike Woggon		
14.20 - 15.00	Yu. Rakovich Donostia-San Sebastian, Spain	<i>Organic-Inorganic Hybrid Nanostructures: Exciton-Plasmon Interaction and Rabi Splitting Effect</i>
15.00 - 15.20	R. C. Mbwahnche St. Petersburg, Russia	<i>Synthesis of quantum dots and plasmonic nanoparticles using segmented flow reactor</i>
15.20 - 15.40	O. V. Andreeva St. Petersburg, Russia	<i>Plasmon particles of colloidal silver in fine-grain recording media</i>
15.40 - 16.00	E. V. Shabunya- Klyachkovskaya Minsk, Belarus	<i>Plasmonic sensors for microcrystals identification</i>
16.00 - 16.10 Closing remarks		
16.10 - 16.30 Final coffee		

Full list of contributions to the PCNSPA Conference 2016

INVITED TALKS

1. A^{II}B^{VI} Colloidal Quantum Wells: Synthesis, Structure and Optical Properties

M. Artemyev, A. Prudnikau, A. Antanovich, A. Fedosyuk, and A. Mikhailov

2. Dangling Bond Magnetic Polaron in CdS Nanocrystals

Al. Efros and A. Rodina

3. Excitons in Colloidal 2D-CdSe Nanocrystals

A. W. Achtstein, R. Scott, and U. Woggon

4. Organometallic Approach to Quantum Dots: a Way to Control Surface Properties

B. Chaudret

5. Novel Approaches to Complex Quantum Dot Structures

P. O'Brien

6. Dimensionality Matters: Dimensionality Effects on Optoelectronic Behavior of Semiconductor Nanocrystals

U. Banin

7. Combination of Photo-induced Alignment and Self-assembly to Realize Polarized Emission from Ordered Semiconductor Nanorods

J. Schneider, T. Du, A. K. Srivastava, W. Zhang, A. S. Susha, V. G. Chigrinov, H. S. Kwok, and A. L. Rogach

8. Polyelectrolyte Assembly on Modulated Surfaces: Tool for Fabrication of Defined Fluorescent Nanoparticles and Periodic Colloidal Structures

G. B. Sukhorukov, H. Gao, A. Sapelkin, and M. M. Titirici

9. Quantum Dot-based Hybrid Nanostructures for Advanced Single- and Multi-photon Imaging and Diagnostics

I. Nabiev

10. Interaction of Colloidal Nanoparticles with Cells

W. J. Parak

11. Superstructures from Colloidal Nanocrystals

A. Eychmüller

12. Optically Active Quantum Dots

Y. K. Gun'ko, J. E. Govan, F. Purcell Milton, A. Loudon, O. Cleary, M. V. Mukhina, V. G. Maslov, A. O. Orlova, A. V. Baranov, and A. V. Fedorov

13. Organic-Inorganic Hybrid Nanostructures: Exciton-Plasmon Interaction and Rabi Splitting Effect

D. Melnikau, R. Esteban, D. Savateeva, A. Sánchez-Iglesias, M. Grzelczak, M. K. Schmidt, L. M. Liz-Marzán, J. Aizpurua, and Y. P. Rakovich

CONTRIBUTED TALKS

1. Confined Acoustic Phonons in Colloidal Nanorod Heterostructures Investigated by Non-Resonant Raman Spectroscopy and Finite Elements Simulations

M. Miscuglio, M. Lin, F. Di Stasio, P.-H. Tan, and R. Krahne

2. Electron Spin Coherence near Room Temperature in Magnetic Colloidal Quantum Dots

F. Moro, L. Turyanska, J. Wilman, A. J. Fielding, M. W. Fay, J. Granwehr, H. Williams, and A. Patanè

3. Origin of Double Luminescence in Giant PbS/CdS Core/Shell Nanoparticles by Ultrafast Spectroscopy

G. Sirigu, A. Camellini, H. Zhao, A. Parisini, F. Rosei, V. Morandi, A. Vomiero, and M. Zavelani-Rossi

4. CdSe/ZnS/CdS/ZnS QDs with Advanced Two-Photon Properties for Tumor Diagnosis and Treatment

P. Linkov, V. Krivenkov, P. Samokhvalov, M. Laronze-Cochard, J. Sapi, and I. Nabiev

5. A Highly Efficient White Light-Emitting Diode Based on Two-Component Polyfluorene/Quantum Dot Composite

S. V. Dayneko, P. S. Samokhvalov, D. Lypenko, G. I. Nosova, I. A. Berezin, A. V. Yakimansky, A. A. Chistyakov, and I. Nabiev

6. Acoustic Vibrations of 2D Atomic Flat Nanoplatelets for Nanobalance Application

A. Girard, A. Mermet, J. Margueritat, B. Mahler, L. Saviot, S. Pedetti and B. Dubertret

7. Linear Polarization Memory Effect from Ensemble of Colloidal Nanostructures

A. V. Rodina

8. Synthesis and Properties of Submicron Chitosan-based Particles Doped with CdTe and CdSe/ZnS Quantum Dots

E. A. Slyusareva, M. A. Gerasimova, N. V. Abuzova, and V. V. Slabko

9. Exciton Spin Polarization in Colloidal CdSe Nanoplatelets in Strong Magnetic Fields

A. A. Golovatenko, A. V. Rodina, E. V. Kozhemyakina, L. Biadala, Al. L. Efros, M. Nasilowski, D. R. Yakovlev, B. Dubertret, and M. Bayer

10. The Exciton Generation, Transport, and Photoemission in Quantum Dots, Thin Flexible RGB-, White-, and UV- Quantum Dot Light-Emitting Devices

J. Lim, H. J. Lee, and S. Lee

11. Perovskite Quantum Dots as UV-to-white Color Conversion Materials for LEDs

F. Palazon, F. Di Stasio, Q. A. Akkerman, R. Krahne, M. Prato, and L. Manna

12. New Approach for the Synthesis of InP@ZnS Quantum Dots

E. A. Baquero, W. S. Ojo, A. Gillet, B. Chaudret, F. Delpech, and C. Nayral

13. Monochelic Copolymers as a Tool for Producing High Concentrations of Nanoparticles in Liquid Crystal Composites

A. A. Ezhov, Y. I. Derikov, E. V. Chernikova, S. S. Abramchuk, A. S. Merekalov, G. A. Shandryuk, and R. V. Talroze

14. Ion Treatments of Colloidal Quantum Dots: Effects upon Structure and Photoluminescence

F. Purcell-Milton and Y. Gun'ko

15. FRET Mechanism of the Stretched Exponential (Kohlrausch) Luminescence Decay of Colloidal Semiconductor Quantum Dots at Room Temperature

E. N. Bodunov, V. V. Danilov, A. S. Panfutova, and A. L. Simões Gamboa

16. Energy Transfer in Hybrid Structures Based on Quantum Dots

A. O. Orlova, V. G. Maslov, A. V. Baranov, and A. V. Fedorov

17. Non-radiative Energy Transfer in Complexes of Quantum Dots with Multiple Tetrapyrrole Acceptors

I. V. Martynenko, A. Orlova, V. Maslov, A. Fedorov, and A. Baranov

18. Optical Properties of Periodic, Quasiperiodic and Aperiodic Sequences of Particulate Monolayers

A. A. Miskevich and V. A. Loiko

19. Self-Assembly of Colloidal Semiconductor Quantum Dots Controlled Solely by Laser-Induced Interaction

A. S. Tsipotani, V. V. Slabko, M. A. Gerasimova, and A. S. Aleksandrovsky

20. Optical Anisotropy of CdSe Quantum Dots Supercrystals

E. V. Ushakova, D. A. Volgina, S. A. Cherevkov, V. V. Zakharov, A. P. Litvin, P. S. Parfenov, A. V. Fedorov, and A. V. Baranov

21. Control of Photoluminescence of Quantum Dots by Liquid Crystal Polymer Matrix

A. S. Merekalov, G. I. Tselikov, A. A. Ezhov, G. A. Shandryuk, A. M. Shatalova, O. A. Otmakhova, and R. V. Talroze

22. Plasmonic Structures for Water Analysis: the Case of Bromate

O. S. Kulakovich, K. A. Mahmoud, K. Rasool, and S. V. Gaponenko

23. Effects of Plasmon Silver and Exciton Semiconductor Nanoparticles on the Photocycle of Bacteriorhodopsin in Membranes of *Halobacterium Salinarum*

V. A. Oleinikov, E. P. Lukashev, S. Yu. Zaitsev, A. A. Chistyakov, D. O. Solovyeva, K. E. Mochalov, and I. Nabiev

24. SERS Substrate Based on Microparticles and Polymer Nanofibers Enables Detection of Pure Molecules as well as Intact Cells

E. S. Prikhozhdenko, E. V. Lengert, B. V. Parakhonskiy, A. Lapanje, G. B. Sukhorukov, D. A. Gorin, and A. M. Yashchenok

25. Resonance Transfer of One- and Two-Photon Excitations in Quantum Dot–Bacteriorhodopsin Complexes

V. A. Krivenkov, P. S. Samokhvalov, R. S. Bilan, A. A. Chistyakov, and I. Nabiev

26. High Quality Mixed QD-Salt Crystals

A. Dubavik, S. Cherevkov, M. Adam, Z. Wang, G. M. Stachowski, C. Meerbach, C. Rengers, Z. Zoran-Erdem, H. V. Demir, A. Eychmüller, and N. Gaponik

27. Synthesis and Optical Properties of Aerogels from Tailored Nanocrystals

S. Naskar and N. C. Bigall

28. Chiroptical Activity of Aligned Ensemble of CdSe/CdS Quantum Dot-in-Rods

M. V. Mukhina, V. G. Maslov, F. Purcell-Milton, A. V. Baranov, A. V. Fedorov, and Y. K. Gun'ko

29. Optical Activity of Helix Quantum-Dot Supercrystals

A. S. Baimuratov, N. V. Tepliakov, Yu. K. Gun'ko, A. V. Baranov, A. V. Fedorov, and I. D. Rukhlenko

30. Synthesis of Quantum Dots and Plasmonic Nanoparticles using Segmented Flow Reactor

R. C. Mbwanche, L. B. Matyushkin, O. A. Ryzhov, O. A. Aleksandrova, and V. A. Moshnikov

31. Plasmon Particles of Colloidal Silver in Fine-Grain Recording Media

O. V. Andreeva, N. V. Andreeva, and T. B. Kuzmina

32. Plasmonic Sensors for Microcrystals Identification

E. V. Shabunya-Klyachkovskaya

POSTERS

1. Quantum Yield Improvement by Embedding Quantum Dots into Various Composite Structures

C. Guhrenz, A. Benad, C. Bauer, N. Gaponik, and A. Eychmüller

2. Electrospun Chitosan Fibres Modified with Silver Nanoparticles for SERS Applications

E. S. Prikhozhdenko, A. Lapanje, A. N. Severyukhina, D. N. Bratashov, G. B. Sukhorukov, D. A. Gorin, and A. M. Yashchenok

3. Optical Activity of Semiconductor Nanocrystals with Ionic Impurities

N. V. Teplakov, A. S. Baimuratov, Yu. K. Gun'ko, A. V. Baranov, A. V. Fedorov, and I. D. Rukhlenko

4. Chloride and Indium-Chloride-Complex Inorganic Ligands for Efficient Stabilization of Nanocrystals in Solution and Doping of Nanocrystal Solids

V. Sayevich, N. Gaponik, and A. Eychmüller

5. Aerogels – Airy Bridges between the Nano and Macro World

A. Benad and A. Eychmüller

6. Plasmon-Enhanced Luminescence of Quantum Dots

L. B. Matyushkin and V. A. Moshnikov

7. Hollow Plasmonic Silver Alginate Microspheres as Effective SERS-Substrate for Detection of Low Concentrated Samples

E. V. Lengert, I. V. Vidyasheva, B. V. Parakhonskiy, A. M. Yashchenok, G. B. Sukhorukov, and D. A. Gorin

8. Porous Calcium Carbonate Submicron Particles for the Photosensitizer Encapsulation

Yu. Svenskaya, D. Gorin, B. Parakhonskiy, and G. Sukhorukov

9. On the Role of Trioctylphosphine Oxide in the Self-Assembly of Colloidal Quantum Dots

A. L. Simões Gamboa, A. Dubavik, P. S. Parfenov, V. V. Zakharov, A. V. Fedorov, and A. V. Baranov

10. The Optical Properties of Quantum Dot-PMMA Composites under Laser Irradiation are Determined by the Method of Preparation of these Composites

M. A. Zvaigzne, I. L. Martynov, V. A. Krivenkov, P. S. Samokhvalov, and I. Nabiev

11. Surface Enhanced Raman Spectroscopy using Gold Nanorod Films

L. L. Trotsiuk, E. V. Shabunya-Klyachkovskaya, and O. S. Kulakovich

12. Influence of QD Energy Structure on FRET in PbS QD Ensembles

A. P. Litvin, E. V. Ushakova, P. S. Parfenov, A. V. Fedorov, and A. V. Baranov

13. Polymer Embedded Silicon Photonic Structures for Novel Sensing Methods

E. V. Osipov, P. S. Ananyev, D. S. Dovzhenko, I. L. Martynov, G. E. Kotkovskii, and A. A. Chistyakov

14. Modeling of Porous Silicon Photonic Crystal Properties in the Visible Range of the Optical Spectrum

D. S. Dovzhenko, I. L. Martynov, R. A. Rakhimov, I. S. Krukova, A. A. Chistyakov, and I. Nabiev

- 15. In Vivo Study of Luminescence Labelled Vaterite Particles Injected into Animals' Lungs**
O. I. Gusliakova, O. A. Sindeeva, S. S. Sindeev, N. A. Pyataev, O. A. Kulikov, E. V. Tyutyayev, D. A. Gorin, G. B. Sukhorukov, E. N. Atochina-Vasserman, and A. J. Gow
- 16. External Electric Field Effect on Photoluminescence of Colloidal CdSe Nanoparticles of Various Topologies**
A. O. Muravitskaya, L. I. Gurinovich, A. V. Prudnikau, M. V. Artemyev, and S. V. Gaponenko
- 17. Photophysical studies of CdSe/ZnS quantum dot complexes with photosensitizer chlorin e6 in DMSO**
A. K. Visheratina, E. V. Kundelev, A. O. Orlova, V. G. Maslov, A. V. Baranov, and A. V. Fedorov
- 18. Energy Transfer in Quantum Dot/Organic Molecules Rigid Solution with Non-homogeneous Component Distribution**
Yu. A. Gromova, V. G. Maslov, A. V. Baranov, A. V. Fedorov, and A. O. Orlova
- 19. Ordered and Disordered Nanocrystal Structures Imaging by AFM**
P. S. Parfenov, A. P. Litvin, E. V. Ushakova, A. V. Fedorov, and A. V. Baranov
- 20. Spatial Features of the Plasmophore Emission**
V. F. Askirka, I. G. Motevich, I. F. Sveklo, A. V. Bobrovich, S. A. Maskevich, and N. D. Strekal
- 21. Solution of Five-Level System of Rate Equations of the Excited States Populations in CdSe/ZnS Quantum Dots under Intense Laser Irradiation**
A. S. Panfutova, V. V. Danilov, and E. N. Sosnov
- 22. Synthesis and Characterisation of Chiral Anisotropic Quantum Confined Nanomaterials**
A. Loudon and Y. Gun'ko
- 23. Circular Dichroism Spectroscopy of Chlorin e6 and its Complexes with Quantum Dots in Different Environments**
E. V. Kundelev, A. O. Orlova, V. G. Maslov, A. V. Baranov, and A. V. Fedorov
- 24. Absorption Properties of 1D and 2D Semiconductor Nanocrystals in the Presence of Electric Field**
N. V. Teplakov, M. Yu. Leonov, A. V. Baranov, A. V. Fedorov, and I. D. Rukhlenko
- 25. Photochemically Induced Circular Dichroism of Semiconductor Quantum Dots**
F. M. Safin, V. G. Maslov, M. V. Mukhina, A. V. Baranov, and A. V. Fedorov
- 26. Aggregation of Sulfophthalocyanine in Complexes with CdSe/ZnS Quantum Dots and Quantum Rods**
D. R. Dadadzhanov, I. V. Martynenko, A. O. Orlova, V. G. Maslov, A. V. Fedorov, and A. V. Baranov
- 27. Spectroscopy of Coupled States in Semiconductor Quantum Dot Pairs**
S. Yu. Kruchinin, I. D. Rukhlenko, A. S. Baimuratov, M. Yu. Leonov, V. K. Turkov, Yu. K. Gun'ko, A. V. Baranov, and A. V. Fedorov
- 28. Photoinduced Processes in Hybrid Structures Based on TiO₂ Nanoparticles and CdSe/ZnS Quantum Dots**
E. P. Kolesova, A. O. Orlova, V. G. Maslov, Y. K. Gun'ko, O. Cleary, A. V. Baranov, and A. V. Fedorov
- 29. Synthesis, Diagnostics and Computer Modelling of Quantum Nanostructures of CdS, CdTe, CdSe and ZnS Families**
A. N. Kravtsova, I. A. Pankin, A. P. Budnyk, T. A. Lastovina, V. V. Butova, M. A. Soldatov, A. L. Shaginyan, and A. V. Soldatov
- 30. Synthesis and Characterization of Colloidal Nanocrystals of Ternary Metal Chalcogenides**
D. S. Mazing, A. I. Shulga, L. B. Matyushkin, O. A. Aleksandrova, and V. A. Moshnikov

31. Interaction of Chiral Fluorescent Nanoparticles with Living Cells

V. A. Kuznetsova, I. V. Martynenko, A. K. Visheratina, C. Maguire, F. Purcell-Milton, A. Loudon, A. Prina-Mello, A. O. Orlova, V. G. Maslov, A. V. Baranov, A. V. Fedorov, Y. Volkov, and Y. K. Goun'ko

32. Hybrid Structures Based on Quantum Dots and Graphene Nanobelts

I. A. Reznik, Y. A. Gromova, A. S. Zlatov, M. A. Baranov, A. O. Orlova, S. A. Moshkalev, V. G. Maslov, A. V. Baranov, and A. V. Fedorov

33. The Combined Theoretical and Experimental Technique for Study of Local Atomic Structure of Doped QD's

I. A. Pankin, A. N. Kravcova, T. A. Lastovina, M. A. Soldatov, and A. V. Soldatov