

Table of Contents

2013, Vol. 2, No4

Track: Nanomaterials Applications in Electronics, Spintronics and Photonics

Non-Equilibrium Green's Function Method in Matrix Representation and Model Transport Problems of Nanoelectronics

Kruglyak Yu.A. 04NAESP01

InAsSbP-based Quantum Dot Mid-Infrared Photodetectors: Fabrication, Properties and Applications

Gambaryan K.M., Harutyunyan V.G., Aroutiounian V.M., Boeck T., Marquardt O., Schuette F. 04NAESP02

Designing Nanotechnology Matching Devices

Kudrya V.G., Voronenko D.A. 04NAESP03

Ultrathin Photovoltaic Donor-Acceptor Structure with Opposite Built-in Fields

Blinov L.M., Lazarev V.V., Yudin S.G. 04NAESP04

Calculation of Current-Voltage Characteristics of the Optimized Triode with a Cold Cathode Based on the Ordered Array of Single-Wall Metallic Carbon Nanotubes

Pozdnyakov D.V., Borzdov A.V., Borzdov V.M. 04NAESP05

Optical Properties of PbSe Qantum Dots Doped in Fluorophosphate Glasses

Poliakova A., Kolobkova E., Abdurshin A., Aseev V., Nikonorov N. 04NAESP06

3D Computer Models of Mo-Zr-V, Ti-C-V, Ti-Ir-Ru T-x-y Diagrams with Three-phase Reaction Type Changing

Lutsyk V.I., Vorob'eva V.P. 04NAESP07

Red Emitting Phosphors Doped with Mn and Eu Ions for pc-WLEDs

Nekrasova Ya., Aseev V., Nikonorov N., Kolobkova E., Usov O., Nashchekin A. 04NAESP08

Ternary Systems for the Liquid Immiscibility Gap Technology

Lutsyk V.I., Zelenaya A. 04NAESP09

Influence of Impact Ionization Process on Current-Voltage Characteristics of Nanoscale Silicon n-Channel MOSFET

Pozdnyakov D.V., Borzdov A.V., Borzdov V.M., Komarov F.F. 04NAESP10

Electrochromic Film Based on a-WO₃ Obtained by Sol-gel

Trofimov A.O., Kolobkova E.V., Sohovich E.V., Zemko V.S. 04NAESP11

Nonlinear-optical Negative-index Metamaterials: Extraordinary Properties and Applications

Popov A.K., Nefedov I.S., Myslivets S.A., Shalaev M.I., Slabko V.V. 04NAESP12

MOCVD Growths of the InAs QD Structures for Mid-IR Emissions

Tang X., Yin Z. 04NAESP13

Retention Behaviour of MNOS Memory Devices with Embedded Si or Ge Nanocrystals - Computer Simulation

Turmezei P.J., Molnár K.Z., Horváth Z.J., Kovács B. 04NAESP14

Deformation Stimulated Luminescence of Nano-Micro-Parcticles SrAl₂O₄:(Eu²⁺, Dy³⁺) in a Matrix of Photopolymer and Creation of Sensor Elements of Mechanical Stresses

Banishev A.A., Banishev A.A., Lotin A.F. 04NAESP15

Modeling of the Mechanism of Influence of the Defect Structure in a Polycrystalline Scandi-um Oxide
on the Properties of the Thermal and Electrical Effects in Vacuum

Soloviova A.E. 04NAESP16

Simulation of the Mechanism of Formation of Solid Solutions in the System In₂O₃ – TiO₂ When
Heated in Air

Soloviova A.E. 04NAESP17

Two-photon Processes in Organometallic Molecules and Clusters: T-T Absorption of Group IV
Metal Complexes

Vasiliev V.P., Loukova G.V., Ivanov V.L., Melnikov M.Ya., Smirnov V.A., Melnicuk E.E. 04NAESP18

Harvesting and Electron-Exchange Energy Transfer by d0 Metallocene-Based Organized Systems

Loukova G.V. 04NAESP19

Dependence of Chemical Etching Rate of PTR-glasses on Terms of Photo-Thermo-Induced
Crystallization

Sorokina M.G., Bocharova I.V., Nikonorov N.V., Ignatiev A.I. 04NAESP20

Correlation between Crystallographic Alignment of Self-induced GaN Nanowires and Features of
Si(111) Nitridation

*Kuchuk A., Kladko V., Lytvyn P., Stanchu H., Sobancka M., Wierzbicka A., Klosek K.,
Zytkiewicz Z.R.* 04NAESP21

Evolution of Porous Structure in Technologically Modified MgO-Al₂O₃ Ceramics

Klym H.I., Hadzama I.V. 04NAESP22

Track: Nanomaterials Applications in Biotechnologies and Medicine

Chitosan-Gold Nanoparticle Composites for Biomedical Application

*Prokhorov Ye., Zarate-Triviño D., Valenzuela Acosta M., Luna-Bárcenas G., Rodríguez
Padilla C., Franco Molina M.* 04NABM01

Preparation and Medico-Biological Tests Nanocolloids Radiopharmaceuticals on the Base of
Modified DTPA Labeled Technetium-99m

Stasyuk E.S., Scuridin V.S., Nesterov E.A., Varlamova N.V., Rogov A.S., Sadkin V.L. 04NABM02

Study of the Structure and Mechanical Properties of PSZ (Partially Stabilized Zirconia) after Heat
Treatment at 1600 °C

*Milovich F.O., Tabachkova N.Y., Bublik V.T., Lomonova E.E., Borik M.A., Kulebyakin A.V.,
Myzina V.A.* 04NABM03

Ultrasonic Nanomedicine in the Therapy of Oncological Diseases

Gopin A.V., Nikolaev A.L., Bozhevolnov V.E., Mazina S.E., Treschalina E.M., Dezhkunov N.V. 04NABM04

Effect of Hydroxyapatite Nanoparticles on Kinetics of Enzymatic Gelation in Milk

Bozhevolnov V.E., Smykov I.T., Severin A.V. 04NABM05

Nano-sized Gene Delivery System Based on Cationic Amphiphiles

Koloskova O.O., Budanova U.A., Sebyakin Yu.L. 04NABM06

Application Of Chitosan/Cyclodextrin Nanoparticles for Tissue Glutathione Delivery

Rotar O.V., Rotar V.I. 04NABM07

Preparation of Poly(Vinyl Alcohol) Based Composites Filled with Biocompatible Nanoparticulate
Silver Containing Fillers for Highly Efficient Bactericidal Materials

Tolstov A. 04NABM08

Creating Properties of Eu ³⁺ -doped Calcium Hydroxyapatite as Biocompatible Fluorescent Probes <i>Zubar E.V., Efryushina N.P., Dotsenko V.P.</i>	04NABM09
The Influence of Montmorillonite Nanofillers on the Lung Surfactant <i>Kondej D., Sosnowski T.R.</i>	04NABM10
Computational Study of Amino Acids, Order to Simulation of Membrane Protein Channels Using by Theoretical Methods <i>Rasoolzadeh R.</i>	04NABM11
Photoacoustic Signal Enhancement by Localized Surface Plasmon of Gold Nanoparticles <i>Ishihara M., Okawa S., Sato R., Hirasawa T., Teranishi T.</i>	04NABM12
Generation and Collection of Biological Nanoaerosols <i>Morozov V.N., Mikheev A.Y., Kanev I.L., Vladimirsy M.A.</i>	04NABM13
Using a Colloidal Solution of Metal Nanoparticles as Micronutrient Fertiliser for Cereals <i>Batsmanova L.M., Gonchar L.M., Taran N.Yu., Okanenko A.A.</i>	04NABM14
Biphasic Calcium Phosphate Composite for Biomedical Applications <i>Kuznetsov V.N., Sukhodub L.B., Stanislavov A.S., Inshyna N.N., Kulak A.I., Sukhodub L.F.</i>	04NABM15
Structural Properties of the Nanocrystallized Magnetite of Different Syntheses <i>Kuznetsov V.N., Stanislavov A.S., Danilchenko S.N., Kalinkevich O.V., Kalinkevich A.N., Sukhodub L.F.</i>	04NABM16
The Study of the Influence of Static Magnetic Field on Brushite Crystallization in the Presence of Magnesium <i>Kuznetsov V.N., Yanovska A.A., Stanislavov A.S., Danilchenko S.N., Sukhodub L.F.</i>	04NABM17
Ultrasonically Assisted Preparation of Polysaccharide Microcontainers for Hydrophobic Drugs <i>Borodina T.N., Akasov R.A., Bukreeva T.V., Markvicheva E.A.</i>	04NABM18
Polyelectrolyte Nanocomplexes with pH-Controlled Solubility <i>Gorshkova M.Yr., Volkova I.V., Grigorian E.S., Izumrudov V.A.</i>	04NABM19
The Influence of Ultrasound and Ultraviolet Irradiation on the Nanocomposite Calcium Phosphate-Polymer Gel <i>Musskaya O.N., Kulak A.I., Krutsko V.K., Ulasevich S.A., Lesnikovich L.A., Sukhodub L.F.</i>	04NABM20
Nanoscale Apatite Biomaterials for Osteointegration <i>Kalinichenko T.G., Danilchenko S.N.</i>	04NABM21
Cellular Adhesion to Carbon Nanotubes-Anchored Oligonucleotide: Electro-Chemical Detection <i>Krylova N.G., Grushevskaya H.V., Lipnevich I.V., Orekhovskaya T.I., Egorov A.S., Egorova V.P., Govorov M.I., Kulahava T.A., Semenkova G.N., Shulitsky B.G., Ulashchik V.S., Vasiljev N.V.</i>	04NABM22
Preosteoblast Cell Adhesion and Proliferation on Polycaprolactone (PCL) 3D Scaffolds with Hyaluronic Acid Nano Layer <i>Ko Y.M., Kim H.I., Kim K.H.</i>	04NABM23
Conductometric Biosensor Based on Urease, Adsorbed on Silicalite for Determination of Urea in Serum Samples <i>Soldatkin O.O., Kucherenko I.S., Ozansoy Kasap B., Akata Kurc B., Soldatkin A.P., Dzyadovych S.V.</i>	04NABM24

Mesoporous Silica and Composite Nanostructures for Theranostics <i>Khlebtsov B.N., Khanadeev V.A., Terentyuk G.S., Chumakov D.S., Basko M.V., Bucharskaya A.B., Genina E.A., Bashkatov A.N., Khlebtsov N.G.</i>	04NABM25
Polysaccharides Based Composite Nanoparticles as Protein Oral Delivery System <i>Konovalova M.V., Khramova D.S., Ilyina A.V., Kurek D.V.</i>	04NABM26
The Method for Protein Display on the Surface of Bacterial Magnetic Nanoparticles <i>Grouzdev D.S., Dziuba M.V., Kurek D.V., Ovchinnikov A.I.</i>	04NABM27
The Effects of Chronic Intake of Nanoparticles of Cerium Dioxide or Gadolinium Orthovanadate into Aging Male Rats <i>Karpenko N.A., Malukin Yu.V., Koreneva E.M., Klochkov V.K., Kavok N.S., Smolenko N.P., Pochernyaeva S.S.</i>	04NABM28
Transformation of the Internal Energy of the Active Nanoparticles under Canonical Representation <i>Badalyan A.Yu., Yushchenko O.V.</i>	04NABM29
Track: Nanomaterials for Energy Applications	
Carbon Nanotubes - Si Hybrid Solar Cells <i>Levitsky I.A.</i>	04NEA01
Hybrid Photonic Antennae Based on Mesoporous Silica Frameworks <i>Cucinotta F., Carniato F., Marchese L.</i>	04NEA02
Electrochemical Behavior of Carbon Electrodes as a Key to Supercapacitor Optimization <i>Zelinskyi S.A., Maletin Yu.A., Stryzhakova N.G., Tychyna S., Drobny D.M.</i>	04NEA03
Effects of Concentration Titanium on Threshold Character of Deuterium Desorption Temperature Range from Mg-based Composites <i>Morozov O.M., Kulish V.G., Zhurba V.I., Neklyudov I.M., Progolaieva V.O., Kuprin A.S., Lomino N.S., Ovcharenko V.D., Galitskiy O.G.</i>	04NEA04
High-Quality Mega-Electron Volt Proton Beams Generated by Nanotube Accelerators <i>Murakami M., Tanaka M.</i>	04NEA05
High-rate Electrochemical Performance of Nanosized LiNi _{0,5} Mn _{1,5} O ₄ <i>Romanova I.V., Potapenko A.V., Chernukhin I.S., Rabadanov K.Sh., Gafurov M.M., Kirillov S.A.</i>	04NEA06
Polymer Nanocomposites for Wind Energy Applications: Perspectives and Computational Modeling <i>Mishnaevsky Jr. L.L., Zhou H.W., Peng R.D., Dai G., Wang H.W.</i>	04NEA07
New Materials Based on Carbon-Metal Nanocomposites for Supercapacitor Application <i>Suleimanov S.M., Khantimerov S.M., Faizrahmanov I.A., Abdullin D., Togulev P.N.</i>	04NEA08
Supercapacitors Based on Composite Polyaniline / Reduced Graphene Oxide With Network Nanocomposite Polymer Electrolyte <i>Yarmolenko O.V., Baskakov S.A., Shulga Y.M., Vengrus P.I., Efimov O.N.</i>	04NEA09
Influence of Inorganic Nano-powders on the Structure and Conductive Properties of the Network Polymer Electrolytes for Lithium Batteries <i>Yarmolenko O.V., Yudina A.V., Tulibaeva G.Z., Cherniak A.V., Volkov V.I., Shestakov A.F.</i>	04NEA10
Technology Features an Electrochemical Obtain Powdered Zirconium <i>Protsenko Z.M.</i>	04NEA11

Study of Compacting Methods for Nanostructured Thermoelectric Materials Based on Si-Ge and Half-Heusler Alloys.

Usenko A., Khovaylo V.V., Voronin A.I., Korotitsky A.V., Karpenkov D.Yu., Maradudina O.N. 04NEA12

Thermoelectric Properties of Si-Ge Nanostructured Thermoelectric Materials Synthesized by Mechanical Alloying

Voronin A.I., Usenko A.A., Korotitsky A.V., Karpenkov D.U., Maradudina O.N., Khovaylo V.V. 04NEA13

Up-conversion and IR Luminescence of Ytterbium–Erbium Oxyfluoride Silicate Glassceramics

Aseev V.A., Kolobkova E.V., Nekrasova Ya.A., Nikonorov N.V., Nuryev R.K., Rokhmin A.S. 04NEA14

The Influence of Interstitial Impurities (H, B, C) on Grain Boundary Cohesion in B2 Ti-based Alloys

Kulkova S.E., Bakulin A.V., Kulkov S.S., Hocker S., Schmauder S. 04NEA15

Optical Losses of Thin Solar Cells on the Basis of n-ZnS / p-CdTe and n-CdS / p-CdTe Heterojunctions

Dobrozhан O.A., Berestok T.O., Kurbatov D.I., Opanasyuk A.S., Opanasyuk N.M., Nefedchenko V.F. 04NEA16

Methods for Manufacturing Carbon Electrodes for Supercapacitors: Pros and Cons

Drobny D.M., Tychyna S.A., Maletin Yu.A., Stryzhakova N.G., Zelinskyi S.A. 04NEA17