Joint Institute for Nuclear Research
M.V.Lomonosov Moscow State University

# XIIth INTERNATIONAL CONFERENCE ON SELECTED PROBLEMS OF MODERN PHYSICS

Dedicated to the 95th anniversary of the birth of
D.I. Blokhintsev (1908-1979)

**Dubna, Russia, June 8 - 11, 2003**

## Section II
## Physical Investigations at Pulsed Reactors

# Conference Programme

Dubna - 2003

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A.V.Zrodnikov (IPPE, Russia)

The Conference is supported by the
Ministry of Industry, Science and Technology of
Russian Federation and the
Ministry of the Russian Federation on Atomic Energy

## 8 June (Sunday)

**Bogoliubov Laboratory of Theoretical Physics, JINR**

10.30 **Registration**

11.00 **Memorial session dedicated to D.I.Blokhintsev**

V.G.Kadyshevsky, A.A.Logunov, E.P.Shabalin, A.N.Sissakian, V.I.Trukhin, A.V.Zrodnikov

13.00 **Lunch**

**Dubna Branch of the Skobeltsyn Institute of Nuclear Physics of MSU**

**Plenary Session** (Chairman – A.V.Belushkin)

15.00 V.L.Aksenov
*"IBR-2 Reactor in XXI Century"*

15.30 A.V.Gulevich
*"Concept of Laser System Pumping with IBR - Type Reactor"*

16.00 **Coffee**

16.30 S.V.Vorontsov
*"RFNC-VNIIEF Pulse Reactors Design and Operation Experience"*

17.00 K.Clausen
*"The European Spallation Source ESS, a Visionary Top Class Pulsed Neutron Facility to Europe's Leadership in Science Using Neutron Beams"*

17.30 V.S.Barashenkov
*"From Obninsk to Dubna -How to Combine Atomic Reactor with Accelerator?"*

## 9 June (Monday)

**Dubna Branch of the Skobeltsyn Institute of Nuclear Physics of MSU**

**Plenary Session** (Chairman – W.I.Furman)

09.00 V.N.Shvetsov
*"Direct Measurement of the Neutron-Neutron Scattering Amplitude at Pulsed Reactor YAGUAR: Current Status of the Experiment"*

09.30 L.B.Pikelner
*"About Nature of the Parity Violation Effect at the Interaction of Neutrons with Lead Isotopes"*

10.00 H.Lauter
*"Ability of Polarised Neutron Reflectometry to Study Artificial Magnetic Structures"*

10.30 Th.Rekveldt
*"Neutron Spin-Echo for SANS and Reflectometry"*

11.00 **Coffee**

## Parallel Sessions

## Session "Cold Moderators"

(Chairmen – E.P.Shabalin, I.Natkaniec)

11.30 Yu.Ya. Stavisski
*"The Giant Pulses of Slow Neutrons in Beam-dumps of Proton Accelerators for Superhigh Energies"*

11.50 E.P.Shabalin
*"Conception of Cold Moderator with Solid Aromatic Hydrocarbons"*

12.10 H.Tietze-Jaensch
*"The ESS Moderator Concept and Instrument Layout of the Short Pulse and Long Pulse Target Stations"*

12.30 Y.Kiyanagi
*"Neutronic Studies on High Efficiency Cold Neutron Moderator for Pulsed Neutron Sources"*

12.50 H.Conrad
*"Inelastic Neutron Scattering and Spectral Measurements of Advanced Cold Moderator Media"*

13.10 **Lunch**

15.00 J.R.Granada
*"Neutron Scattering Cross Sections of Cryogenic Materials: Preliminary Results for Mesitylene"*

15.20 I.Natkaniec
*"Inelastic Neutron Scattering on Solid Solutions of Methyl Derivatives of Benzene Selected as Promising Cold Moderator Materials"*

15.40 S.Kulikov
*"Radiation Properties of Prospective Moderator Materials"*

16.00 **Coffee**

## Session “Complex Solutions”

(Chairmen – M.V.Avdeev, V.B.Priezzhev)

16.30 M.Balasoiu
*“Structural Studies of Ferrofluids by Small-Angle Neutron Scattering”*

16.50 G.Klose
*“Determination of Multilamellar Vesicle Portions in Extruded Phospholipid Dispersions by SANS”*

17.10 M.A.Kiselev
*“What Can We Learn About Vesicle Structure from Small-Angle Neutron Scattering Experiment?”*

## Session “Neutron Instrumentation and Methods”

(Chairmen – A.M.Balagurov, Yu.V.Nikitenko)

11.30 A.M.Balagurov
*“Ultra-High Resolution Neutron Diffraction Using Fourier Chopper Technique”*

11.50 Ch. Scheffzük
*“The Strain Diffractometer EPSILON-MDS at the Neutron Pulsed Source IBR-2 in Dubna”*

12.10 K.C.Littrell
*“A Comparison of Different Methods for Improving Flux and Resolution on TOF-SANS Instruments”*

12.30 A.I.Kuklin
*“The Modernized Small-Angle Neutron Scattering Spectrometer YuMO”*

12.50 D.V.Sheptyakov
*“Direct Structure Determinations From HRPT Neutron Powder Diffraction Data”*

13.10 **Lunch**

15.00 V.B.Zlokazov
*“Visual Dialog-Based Analysis of Neutron Diffraction Spectra”*

15.20 V.N.Shvetsov
*“Software Package AS (Automation of Spectrometry) for VME- and CAMAC-Standard Spectrometers at IBR-2”*

15.40 Yu.V.Grigoriev
*“A Setup with a Mechanical Chopper for Monochromatization of Neutrons and Trunction of a Neutron Flux of a Neutron Source”*

16.00 **Coffee**

16.30 Yu.V.Nikitenko
*"Neutron Spin-Precession in a Magnetic Field and Wave Resonator"*

16.50 S.V.Kozhevnikov
*"Current Sheet Spin-Processor for a Neutron Spin-Echo Small Angle Spectrometer"*

17.10 E.A.Raitman
*"Elastic and Inelastic Neutron Scattering on Ultrasonic Excitations in Solids Studied by Diffraction, NSE and Total Reflection Techniques"*

## Session "Neutron Physics"

(Chairmen – V.N.Shvetsov, V.V.Voronov)

11.30 W.I. Furman
*"Quantum Aspects of the Neutron Induced Nuclear Fission"*

11.50 F.-J.Hambsch
*"Fission Process Investigations at the White Neutron Source GELINA"*

12.10 V.A.Kalinin
*"Double-Differential Neutron Spectra in Fission of U-235 and Pu-239 Induced by Thermal and Resonance Energy Neutrons"*

12.30 Yu.V.Ryabov
*"Search for High Energy Gamma-Decay up to 200 MeV from the Spontaneous Fission Cf-252"*

12.50 A.B.Laptev
*"Neutron Nuclear Physics Investigations at the Time-of-Flight Spectrometer GNEIS"*

13.10 **Lunch**

15.00 A.A. Sinyanskii
*"Research of Continuous Nuclear-Laser Installations in VNIIEF"*

15.20 S.P.Melnikov
*"Investigations of Nuclear-Pumped lasers using VIR-2M pulse reactor"*

15.40 S.L.Turutin
*"Multichannel Nuclear-Laser Devices with Quasi-Continuous Operation at BIGR Reactor"*

16.00 **Coffee**

16.30 Yu.A.Alexandrov
*"Neutron Polarizability"*

16.50 S.V.Borzakov
*"Experimental Possibilities to Investigate the Nucleon-Nucleon Interaction in the Low Energy Region"*

17.10 A.I.Oprea
*"On The Measurement of the Forward-Backward Effect in the $^{35}Cl(n,p)^{35}S$ reaction"*

17.30 **Poster session**

"Cold Moderators",
"Neutron Instrumentation and Methods",
"Condensed Matter Physics-1"

## 10 June (Tuesday)

**Dubna Branch of the Skobeltsyn Institute of Nuclear Physics of MSU**

**Plenary Session** (Chairman – Yu.V.Kopaev)

09.00 Yu.A.Izyumov
*"Dynamics of Longitudinal Components of Isotropic Ferromagnet"*

09.30 A.R.Khokhlov
*"Structure of Amphiphilic Polymer Hydrogels as Revealed by Neutron Scattering"*

10.00 S.M.Stishov
*"Current State of High Pressure Physics"*

10.30 M.V. Frontasyeva
*"FLNP JINR Contribution to the European Programme "Atmospheric Heavy Metal Deposition"*

11.00 **Coffee**

**Parallel Sessions**

### Session "Biology and Polymers"
(Chairmen – A.N.Ozerin, A.I.Kuklin)

11.30 A.N.Ozerin
*"Structure and Dynamics of Dendritic Macromolecules"*

11.50 L.S.Yaguzhinsky
*"The Enzymes Supercomlexes. Clusterisation of Mitochondrial Membrane Proteins"*

12.10 A.I.Kuklin
*"Investigation of Polymers by Neutrons on IBR-2"*

12.30 A.S.Andreeva
"*Small Angle Neutron Scattering Study of the Influence of the Nature of Bond Between Hydrophilic Backbone and Hydrophobic Side Chains on the Structure of Hydrophobically Modified Gels"*

12.50 L.I.Barsukov
*"Thermoresponsive Lipid-Detergent Systems"*

13.10 **Lunch**

15.00 V.Lauter-Pasyuk
*"Self-Assembled Copolymer- Nanoparticle Thin Films: Structural Order and Magnetic Behavior"*

15.20 V.V.Isaev-Ivanov
*"Analytical Model for Determination of Parameters of Helical Structures in Solution by Small Angle Scattering: Investigation of Bacterial RecA Structures by SANS"*

15.40 D.V.Lebedev
*"Effect of High Salt on the Filament Structure of RecA Proteins: SANS Study"*

16.00 A.Kh.Islamov
*"SANS Investigation of Lipid Systems at the YUMO Spectrometer of IBR-2 reactor in Dubna"*

16.20 A.Kh.Islamov
*"SANS Study of Phase Transitions in Lipid Membranes as Function of Lipid/Water Content and Temperature Under the High Pressure"*

16.40 *Brief Oral Presentations of Posters of Young Scientists*

16.50 **Coffee**

## Session "High Pressure Physics and Earth Science"

(Chairmen – B.N.Savenko, A.N.Nikitin)

11.30 V.A.Somenkov
*"High Pressure Inelastic Neutron Scattering Studies at DN-12 Spectrometer of IBR-2 Reactor"*

12.10 D.P.Kozlenko
*"Studies of Pressure-Induced Structural and Magnetic Phase Transitions in Crystals at DN-12 Spectrometer of IBR-2 Reactor"*

12.30 A.I.Beskrovniy
*"A New Neutron Diffractometer for High-Pressure Research at the IBR-2 Pulsed Reactor"*

12.50 V.K.Fedotov

*"Localisation of Hydrogen and Deuterium in β - Manganese"*

13.10 **Lunch**

15.00 V.V.Sikolenko
*"High Pressure Neutron Diffraction Studies of the $UMe_2Ge_2$"*

15.20 T.Lokajićek
*"New Approach to the High Pressure Study of the 3-D elastic Anisotropy"*

15.40 T.I.Ivankina
*"Application of Neutron Diffraction to Study of Anisotropy and Textures of Rocks as Factors of "Genetic Memory" for Deformational and Metamorphic Processes in the Lithosphere of the Earth"*

16.00 A.N.Vinogradov
*"Decrepitation of Fluid Inclusions in Minerals as a Control factor for Abnormal Increase of an Ionic Conduction of Crystalline Rocks Under Heating"*

16.20 Yu.P.Smirnov
*"Amphibolite Elastic Properties Peculiarities of SD-3 Geospace"*

16.40 **Coffee**

## Session "Neutron Physics"

(Chairmen – V.N.Shvetsov, V.V.Voronov)

11.30 T.V.Galatyuk
*"Cross-Section Modeling Procedure for Nuclear Reactor Steady State and Transient Applications"*

11.50 V.F.Kolesov
*"Variants of Aperiodic Pulse Reactors with Forced Pulse Parameters"*

12.10 V.F.Kolesov
*"Kinetics of Cascade Boosters in the Aspect of Their Rapidity and Safety"*

12.30 Author to be confirmed
*"Problems of Nuclear Installations Reliability and Safety"*

12.50 C.Oprea
*"Analysis of the Multistep Emissions of Proton Spectra $^{40}Ca$ ( $\gamma$, p) Reaction at Energy $\varepsilon_\gamma$=60 MeV"*

13.10 **Lunch**

## Session “Neutron Activation Analysis for Life Sciences”

(Chairman – M.V.Frontasyeva)

15.00 A.G.Dutov
*“Spontaneous Crystallization of Diamonds in a Melt of Metals Studied by Neutron-Activation Analysis and EPR”*

15.15 E.V.Ermakova
*“Air Pollution Studies in Central Russia (Tver', Yaroslavl' regions), Using Moss Biomonitors and Neutron Activation”*

15.30 S.V.Dyomkina
*“Gradients of Element Pollutants from Highway Traffic Emissions Studied by NAA, XRF and AAS”*

15.45 A.S.Sazonov
*“Air Pollution Studies in R.Macedonia Using Moss Biomonitoring Technique, Neutron Activation Analysis and Gis Technology”*

16.00 O.Culicov
*“Atmospheric Deposition of Trace Elements in Romania Studied by the Moss Biomonitoring Technique Using NAA and AAS”*

16.15 L.I.Smirnov
*“Monitoring of Trace Elements and Radionuclides Air Pollution in the South Ural Mountains Using Mosses and Surface Soils”*

16.30 M.Coskun
*“NAA and AAS of Moss Samples Used to Study Air Pollution in the Thrace Region, Turkey”*

16.45 **Coffee**

17.00 **Poster session**

“Condensed Matter Physics-2”,
“Neutron Physics”,
“Neutron Activation Analysis for Life Sciences”

17.00 Commission of Minatom RF
on Neutron Scattering by Condensed Matter

# 11 June (Wednesday)

**Dubna Branch of the Skobeltsyn Institute of Nuclear Physics of MSU**

**Plenary Session** (Chairman – H.Lauter)

09.00 N.M.Plakida
*"High Temperature Superconductivity: Ups and Downs"*

09.30 R.Blinc
*"Jahn-Teller Effect and the Origin of Ferromagnetism in the Molecular Nanomagnet TDAE-C60"*

10.00 H.Fuess
*"Inelastic and Elastic Neutron Scattering in $Cu_2Se$"*

10.30 I.G.Smirnov
*"Irradiation Complex at BIGR Reactor Aimed at Simulating Accidents of RIA Type"*

11.00 **Coffee**

**Parallel Sessions**

## Session "Complex Solutions"

(Chairman – M.V.Avdeev, V.B.Piezzhev)

11.30 M.V.Korobov
*"Solutions of the Fullerenes: Experimental Study and Modelling"*

11.50 M.V.Avdeev
*"On the Question of Cluster State of Fullerenes in Carbon Disulfide. Data of Small-Angle Neutron Scattering"*

12.10 G.V.Andrievsky
*"Hydrated Fullerenes - Supramolecular Complexes of Carbon and Water Molecules. Structure, Properties, Possible Mechanisms of Their Unique Biological Activity"*

12.30 A.A.Khokhryakov
*"Water-Based Fullerene Colloidal Solutions by Means of Small-Angle Neutron Scattering Technique"*

12.50 V.T.Lebedev
*"Ternary Fullerene-Porphyrine-Polymer Compounds: Structural Peculiarities in Aqueous Solutions Studied by SANS"*

13.10 N.N.Rozhkova
*"Reconstruction of Shungite Formation Based on Study of Colloidal Solutions of Fullerenes and Nanoparticles"*

## Session “Material Sciences”

(Chairman – N.Popa)

11.30 Yu.V.Taran
*“Some Examples of Engineering Stress Analysis at Pulsed Neutron Sources”*

12.00 V.V.Sumin
*“Real” Life Reactor Material Problem Solved by Neutron Stress Scanners”*

12.20 A.V.Tamonov
*“Investigation of Residual Stress State in Bimetallic Adapter Stainless Steel-Zirconium by Neutron Diffraction”*

12.40 K.Walther
*“Strain Scans Across an Interface Between Dunite and Quartzite Using Synchrotron and Neutron Diffraction”*

13.00 S.I.Morozov
*“The Dynamics of Impurities in Metals Studied by Inelastic Neutron Scattering”*

## Session “Neutron Physics”

(Chairmen – V.N.Shvetsov, V.V.Voronov)

11.30 V.A.Babenko
*“Study of the Neutron Flux and Energy Amplification in Multi-Zone Subcritical Systems with Stationary and Pulse Neutron Sources”*

11.50 V.A.Popov
*“Measurement of Subcriticality of Sandwich-Type Uranium-Graphite Multiplying System”*

12.10 A.I.Frank
*“Neutron Focusing in Time at the UCN Diffraction by Moving Grating”*

12.30 Zh.V.Mezentseva
*“Investigation of a Resonance Structure of the Total and Partial Neutron Cross - Sections of Nb, Mo and Pb in the Energy Region 0.100-200 keV”*

12.50 P.V.Sedyshev
*“Measurement of the 17O(n,a)14C, 21Ne(n,a)18O, and 36Ar(n,a)33S Reaction Cross Section for Thermal Neutrons”*

13.10 V.A.Khitrov
*“On the Transformation of the Neutron Resonance into the Ground State of the Nucleus”*

13.30 **Closing** (Chairman – V.L.Aksenov)
14.00 **Lunch**
16.00 **Steamer Voyage**

## Poster Presentations

## 9 June (Monday)

## Session “Cold Moderators”

(Chairmen – E.P.Shabalin, I.Natkaniec)

**M-1** S.A.Koulikov
*“Cryogenic Irradiation Facility URAM-2 at the IBR-2 Reactor for the Radyolysis Study”*

**M-2** V.I.Bodnarchuk
*“The New Water Moderator of the Reactor IBR-2 with a Canyon on the Lateral Surface. Design and Physical Parameters”*

**M-3** H.Tietze-Jaensch
*The European Spallation Source Facility. Vision and Mission*

**M-4** H.Tietze-Jaensch
*The European Spallation Source Facility. Instruments and Layout*

## Session “Neutron Instrumentation and Methods”

(Chairmen – A.M.Balagurov, Yu.V.Nikitenko)

**I-1** V.I.Prokoshyn
*“Complex for Measurement of Dynamical Characteristics of Nuclear-Physical Devices”*

**I-2** Yu.V.Ryabov
*“The New High Intensity Neutron TOF-Spectrometer at the MMF”*

**I-3** P.K.Utrobin
*“Installation of High Hydrostatic Pressure on Small-Angle Spectrometer YuMo”*

**I-4** E.A.Raitman
*“Inelastic Neutron Scattering on Acoustic Waves in Solids Studied by NSE”*

**I-5** V.N.Gavrilov
*“Neutron Reflection from an Ultrasonically Excited Layered Structures and Glass Mirror”*

**I-6** V.N.Gavrilov
*“Neutron Diffraction by Acoustic Waves in Perfect and Deformed Silicon Crystals”*

**I-7** I.Ionita
*“The Resolution Function for a Pulsed-Source TOF Neutron Spectrometer with Mechanical Monochromator”*

**I-8** A.S.Kirilov
*"Development of the Software Complex for the YuMO Spectrometer at IBR-2 Reactor"*

**I-9** A.P.Sirotin
*"Automation and Environment of a Sample of Modernized Installation YuMO"*

**I-10** A.G.Soloviev
*"The Application for Initial Processing of Small Angle Scattering Spectra"*

**I-11** V.B.Zlokazov
*"Software for Neutron Activation Analysis at Reactor IBR-2, FLNP JINR"*

**I-12** G.M.Mironova
*"Bank of Scientific Information"*

**I-13** A.V.Stadnik
*"Fit a Chosen Theoretical Multi-Parameter Function Through a St of Data Points"*

**I-14** R.A.Zhukov
*"A method for the Determination of Residual Strains in Polycrystalline Materials"*

## Session "Condensed Matter Physics - 1"

(Chairmen – A.I.Beskrovny, D.P.Kozlenko)

**CM1-1** M.Balasoiu
*"SANS Investigations of Microstructural Changes in Sol-Gel derived Iron Oxide/Silica matrix nanocomposites"*

**CM1-2** A.Rajewska
*"Mixture System for TritonX-100+SDS (Nonionic + Anionic Classic Surfactants) Study by Small Angle Neutron Scattering Method"*

**CM1-3** I.Ion
*"Structural Analyses of Composite Materials with Nanocarbon as Filler"*

**CM1-4** L.Almasy
*"Characterising of Local Order in Aqueous Surfactant Solutions by SANS and Thermodynamic Methods"*

**CM1-5** O.V.Sobolev
*"Molecular Motions in Ethylene Glycol: Quasielastic Neutron Scattering Study"*

**CM1-6** S.N.Bushmeleva
*"Magnetic Structures of $NdMnO_3$ Consistently Doped with Sr and Ru"*

**CM1-7** A.E.Sokolov
*"Neutron Powder Diffraction Study of $La_{0.67}Ca_{0.33}Mn_{1-x}Fe_xO_3$ (x=0, 0.3, 0.9)"*

**CM1-8** S.G.Vasilovskiy
*"Structural and Magnetic Phase Transitions in* $RbMnCl_3$*"*

**CM1-9** B.N.Savenko
*"Structural Study of Manganites* $Pr_{1-x}Sr_xMnO_3$ *(x = 0.5, 0.56) at High Pressure"*

**CM1-10** K.Zhernenkov
*"Coexistence of Superconductivity and Ferromagnetism in Fe/V bilayer"*

**CM1-11** V.V.Proglyado
*"Polarized Neutron Reflectometry Studies of Nuclear and Magnetic Profiles in Fe/V Layered Structures"*

**CM1-12** A.V.Tamonov
*" Investigations of Residual Stresses for the Nuclear Industry Carried out at FLNP JINR"*

## 10 June (Tuesday)

## Session "Condensed Matter Physics - 2"

(Chairmen – A.I.Beskrovny, D.P.Kozlenko)

**CM2-1** V.I.Voronin
*"Structure and Properties of the Nanocrystalline Iron-Based Alloys"*

**CM2-2** L.Z.Akhtyamova
*"High-Temperature Neutron Diffraction Investigation of Crystal Structure of Solid Electrolyte* $Cs_3PO_4$*"*

**CM2-3** S.E.Kichanov
*"Structural Study of the Infinite-Layer Compounds* $Sr_{1-x}La_xCuO_2$ *at High Pressure"*

**CM2-4** S.Vratislav
*"Structure Analysis of NaY and NaLSX Zeolites with Methoxy Groups by Powder Neutron Diffraction"*

**CM2-5** M.Dlouha
*"Neutron Powder Diffraction Structural Investigations in LND on the KSN-2 Diffractometer in Řež near Prague"*

**CM2-6** N.O.Golosova
*"The effect of Th Substitution on the Crystal Structure and the Crystal Field Spectrum of the high-*$T_c$ *Superconductor* $HoBa_2Cu_3O_{6.95}$*"*

**CM2-7** V.Savostin
*"Microscopic Structure of Liquid Na-Pb Alloys Studied by Neutron Diffraction"*

**CM2-8** N.N.Bickulova
*"Neutron Scattering Study of Phase Transformations in Solid Solutions $X_{0.25}Cu_{1.75}Se$ (X=Li, Ag)"*

**CM2-9** A.N.Skomorokhov
*"Average Structure in Stoichiometry Dependent $\alpha$-$Cu_{2-\delta}Se$"*

**CM2-10** A.N.Skomorokhov
*"X-ray and Neutron Diffraction Study of Crystal Structure in $K_{1-x}(NH_4)_xCl$ Mixed Salts"*

**CM2-11** A.N.Skomorokhov
*"Phonon Density of States in Superionic and non-Superionic $Li_{0.25}Cu_{1.75}Se$"*

**CM2-12** S.G.Titova
*"Inelastic Neutron Scattering Study of Intercalated Compound $Fe_xTiSe_2$"*

**CM2-13** L.S.Smirnov
*"Vibration Spectra of Ti-Zr-Si Metallic Glass"*

**CM2-14** L.S.Smirnov
*"The Study of Ammonium Ion Dynamics in the $K_{1-x}(NH_4)_xCl$ Mixed Crystals"*

**CM2-15** S.A.Danilkin
*"Lattice Dynamics of Hydrogenated Austenitic Steels"*

**CM2-16** V.Rajevac
*"Lattice Dynamics in Austenitic Stainless Steels"*

**CM2-17** S.I.Morozov
*"Determination of the Hydrogen Content in Constructional Materials by Slow Neutron Scattering Methods"*

**CM2-18** A.V.Knotko
*"The Small Angle Neutron Scattering on the Extensive Defects in the Pr - Substituted $Bi_2Sr_2CaCu_2O_8$"*

**CM2-19** Yu.D.Zaroslov
*"Self-Assembly of Polyelectrolyte Rods in Polymer Gel and in Solution: Small Angle Neutron Scattering Study"*

**CM2-20** D.Uhrikova
*"SANS and SAXD Study DNA+DOPC+$Ca^{2+}$ Aggregates"*

**CM2-21** D.Uhrikova
*"Effect of Cholesterol on the Bilayer Thickness in Unilamellar Extruded DLPC and DOPC Vesicles"*

**CM2-22** *T.N.Murugova "Structural Changes in Mitochondria Studied by Small Angle Neutron Scattering"*

**CM2-23** Yu.S.Kovalev
*"Study of Micellar Solutions Used for Etching of Nanopores in Polymers"*

**CM2-24** R.F.Bakeeva
*"The Investigation of Influence of O-p-Nitrophenyl-O,O-Dimethyltiophosphate upon the Polymer-Colloidal Complexes by SANS Method"*

**CM2-25** S.I.Tiutiunnikov
*"Research of CdSe Luminescence Nanocrystals with use of Submicronic Confocal Raman Microscope"*

**CM2-26** V.V.Efimov
*"Structure and Lattice Dynamics in Relaxor PLZT 8/65/35 Ceramics Irradiated by High-Current Pulsed Electron Beam"*

**CM2-27** F.S.Dzheparov
*"Neutron Physics Studies of Fundamental Processes in Condensed Media"*

## Session "Neutron Physics"

(Chairmen – V.N.Shvetsov, V.V.Voronov)

**NP-1** V.Pronyaev
*"Nuclear Data Requirements for Transmutation and Incineration of Minor Actinides and Fission Products Build Up and Burn Up"*

**NP-2** V.Pronyaev
*"Quantification of Data Uncertainties"*

**NP-3** *R.U.Khafizov*
*"Search for Radioactive Beta-Decay of the Free Neutron"*

**NP-4** Yu.V.Ryabov
*"About Stability of a Gamma-Registrations for Ge(Li)-Detectors at Long Time Intensive Radiation"*

## Session "Neutron Activation Analysis in Life Sciences"

(Chairman – M.V.Frontasyeva)

**NA-1** N.G.Aksenova
*"Neutron Activation Analysis of Mercury in Spirulina Platensis Used as a Sorbent"*

**NA-2** T.E.Galinskaya
*"Heavy Metal and Rare Earth Elements Distribution in the Different Components of Rybinsk Reservoir Ecosystem"*