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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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 Phosphol ipid 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 "Ul tra-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 -Precessor 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 ³⁵Cl(n,p)³⁵S 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 N eutrons 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 "Thermore sponsive 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 Stru ctures 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 'Studi es 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

'Locali sation of Hydrogen and Deuterium in β - Manganese"

13.10 Lunch

- 15.00 V.V.Sikolenko "High Pressure Neutron Diffraction Studies of the UMe₂Ge₂"
- 15.20 Tobjčk "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 Spectra⁴⁰Ca (γ , p) Reaction at Energy ε_{γ} =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*
- 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 Format ion 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 o f 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 *'T he 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 I ntensity 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 Ch osen 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 NdMnO₃ 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 RbMnCl₃"
- **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 Cs₃PO₄"
- **CM2-3** S.E.Kichanov *Structural Study of the Infinite -Layer Compounds Sr*_{1-x}*La*_x*CuO*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 Diffatomarin ŘěmarRagu "
- **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 HoBa₂Cu₃O_{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 α -Cu_{2- δ}Se"
- **CM2-10** A.N.Skomorokhov 'X -ray and Neutron Diffraction Study of Crystal Structure in K_{1-x}(NH₄)_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_xTiSe₂"*
- 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 Const ructional 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*₂*Sr*₂*CaCu*₂*O*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+Ca²⁺ 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 Rela xor 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 o f 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''*