

# **Synchrotron and Free electron laser Radiation: generation and application (SFR-2016)**

**Monday 04 July 2016 - Thursday 07 July 2016**

**Budker INP**

## **Programme**

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# Monday 04 July 2016

## Registration - Conference Hall (08:30-09:30)

## Opening Ceremony - Conference Hall (09:30-09:40)

### Radiation sources and Centers - Conference Hall (09:40-11:00)

- Conveners: Mr. Kulipanov, Gennady (Director of SSTRC)

time	title	presenter
09:40	The MAX IV Accelerator Facility, concept, status and perspectives (00h40')	Prof. ERIKSSON, Mikael (MAX IV Laboratory)
10:20	Novosibirsk Free Electron Laser – unique source of the terahertz and infrared coherent radiation (00h40')	Dr. SHEVCHENKO, Oleg (BINP)

## Coffee - 4th floor foyer (11:00-11:30)

### Radiation sources and Centers: Part II - Conference Hall (11:30-12:50)

- Conveners: Prof. Eriksson, Mikael (MAX IV Laboratory)

time	title	presenter
11:30	Accelerator development at NSRRC-from the first 3rd-generation light source in Asia to a low-emittance photon source (00h40')	Dr. LUO, Gwo-Huei (NSRRC)
12:10	Status of Siberian Synchrotron and Terahertz Radiation Center. Activity review. (00h40')	Dr. ZOLOTAREV, Konstantin (Budker Institute of Nuclear Physics)

## Group photo - Main Entrance (12:50-13:00)

## Lunch - (13:00-14:00)

### Radiation sources and Centers: Part III - Conference Hall (14:00-15:40)

- Conveners: Prof. Vinokurov, Nikolay (Budker INP)

time	title	presenter
14:00	Possibilities for future SR and FEL development in the UK (00h40')	Dr. WALKER, Richard (Diamond Light Source)
14:40	Progress in the design and related studies on the High Energy Photon Source (00h40')	Dr. JIAO, Yi (Institute of High Energy Physics)
15:20	NSLS-II Booster (00h20')	Mr. GUROV, Sergey (BINP)

## Coffee - 4th floor foyer (15:40-16:00)

### Radiation sources and Centers: Part IV - Conference Hall (16:00-18:10)

- Conveners: Prof. Levitchev, Eugeny (Budker INP)

time	title	presenter
16:00	Present Status and Perspectives of Long Wavelength Free Electron Lasers at Kyoto University (00h30')	Dr. ZEN, Heishun (Institute of Advanced Energy, Kyoto University)

16:30	Status and Perspectives of Compton Sources (00h30')	Dr. HAJIMA, Ryoichi (National Institutes for Quantum and Radiological Science and Technology)
17:00	Fabrication of high effective power silicon diffractive optics of terahertz range by femtosecond laser ablation of silicon surface (00h30')	Prof. PAVELYEV, Vladimir (Samara University)
17:30	Synchrotron radiation research and application at VEPP-4 (00h20')	Mr. PIMINOV, Pavel (BINP SB RAS)
17:50	Superconducting 72-pole indirect cooling 3Tesla wiggler for CLIC dumping ring and ANKA image beamline (00h20')	Dr. SHKARUBA, Vitaliy (BINP)

**Welcome Party - BINP Canteen (18:30-21:00)**

## Tuesday 05 July 2016

### **Invited Talks: Part I - Conference Hall (09:00-11:00)**

- Conveners: Prof. Seryi, Andrei (John Adams Institute)

time	title	presenter
09:00	My profession is using of synchrotron radiation in the structural biology of tissue (00h40')	Dr. VAZINA, Alvina (Institute of theoretical and experimental biophysics, RAS)
09:40	X-ray Dark-Field Imaging (XDFl): Recent Developments and Clinical Applications (00h40')	Prof. ANDO, Masami (Tokyo University of Science)
10:20	20 years of X-ray refractive optics: Status and New opportunities for diffraction limited X-ray sources. (00h40')	Dr. SNIGIREV, Anatoly (Immanuel Kant Baltic Federal University)

### **Coffee - 4th floor foyer (11:00-11:20)**

### **Biomedical application of SR and THz radiation: Part I - Conference Hall (11:20-13:00)**

- Conveners: Prof. Moshkin, Mikhail (Institute of Cytology and Genetics SB RAS)

time	title	presenter
11:20	Biomedical Applications of Terahertz Radiation (00h20')	Dr. WALLACE, Vincent (UWA)
11:40	The study of the nonthermal effects of terahertz radiation on living systems. (00h20')	Prof. PELTEK, Sergey (Institute of Cytology and Genetics SB RAS (Novosibirsk, Russia))
12:00	Radiation therapy of human glioma tumors experiments in SSTRC (00h20')	Dr. KUPER, Konstantin (Budker Institute of Nuclear Physics)
12:20	Nanoradiator therapy and synchrotron X-ray imaging of malignant brain tumor (00h20')	Prof. KIM, Jong-Ki (Catholic University of Daegu, School of Medicine)
12:40	Investigation of the principles of detection of small amounts of nanoparticles of drugs and their conglomerates during the synthesis and transport in vivo using methods of X-ray synchrotron radiation (00h20')	Mr. ANCHAROV, Alexey (Institute of Solid State Chemistry and Mechanochemistry SB RAS)

### **Lunch - (13:00-14:00)**

### **Biomedical application of SR and THz radiation: Part II - Conference Hall (14:00-15:40)**

- Conveners: Dr. Zolotarev, Konstantin (Budker Institute of Nuclear Physics)

time	title	presenter
14:00	Study of the THz response of protein solutions at different stages of glycation (00h20')	Dr. CHERKASOVA, Olga (Institute of Laser Physics of SB RAS)
14:20	Structural parameters of macroscopically flat lipid multilayers on a silica sol substrates (00h20')	Mr. VOLKOV, Yuriy (Shubnikov Institute of Crystallography, FSRC "Crystallography and Photonics" RAS)

14:40	Synchrotron Small-Angle X-Ray Scattering as Universal Instrument of Structural Analysis of Bio and Nanosystems (00h20')	Dr. SHTYKOVA, Eleonora (Shubnikov Institute of Crystallography of Federal Scientific Research Centre "Crystallography and Photonics" of Russian Academy of Sciences)
15:00	The possibility of direct analysis of biological tissues of a few milligrams by SR XRF method (00h20')	TRUNOVA, Valentina (Nikolaev Institute of Inorganic Chemistry SB RAS)
15:20	Analysis of K-lines X-ray fluorescence of Rare-Earth and High-Z elements on storage ring of the VEPP-4M (00h20')	Mr. LEGKODYMOV, Aleksandr (Alekseevich)

### **Coffee - 4th floor foyer (15:40-16:00)**

### **Poster Session - 2nd and 3rd floors (16:00-17:00)**

#### **Second and third floors**

- Conveners: Dr. Kuzin, Maksim (Budker INP SB RAS); Mr. Nikolenko, Anton (BINP)

title	presenter	board
Hybrid magnet wiggler for SR research program at VEPP-4M (01h00')	BARANOV, Grigory	001
Superconducting solenoid for superfast THz spectroscopy (01h00')	Dr. BRAGIN, Alexey	002
Ferrum fluorides as nanostructured conversion cathodes: in situ XAFS and XRD study using synchrotron radiation. (01h00')	Mr. SHAPOVALOV, Victor	003
Structural investigations of Ni deposited on porous anodic alumina matrices (01h00')	Mr. CHUKAVIN, Andrey Dr. KRIVENTSOV, Vladimir	004
Structure and properties of ZnS <sub>x</sub> Se <sub>1-x</sub> alloy nanostructures embedded in anodic alumina membrane (01h00')	Mr. CHUKAVIN, Andrey	005
Spatial microstructure of multilayered heterosystems, containing Ge quantum dots molecules in Si on the stages of their nucleation and growth by EXAFS spectroscopy (01h00')	Dr. ERENBURG, Simon	006
Exciton-like and defect-related luminescence in K <sub>3</sub> WO <sub>3</sub> F <sub>3</sub> oxyfluoride crystals (01h00')	Prof. PUSTOVAROV, Vladimir	007
XAFS study of model flotation system - xanthate/zinc sulphate: structural determination of interaction forms existing in aqueous solution and deposition. (01h00')	Dr. KRIVENTSOV, Vladimir	008
NEXAFS study of molecular arrangement in polyaniline films prepared by electrochemical deposition (01h00')	Dr. SYUGAEV, Alexander	009
EXAFS, XANES and XRD investigations of doped ZnS nanostructures (01h00')	Dr. KRIVENTSOV, Vladimir	010
Obtaining Soft X-ray Emission and Absorption Spectra using SR from the VEPP-4 storage ring on the metrology station "Cosmos" (01h00')	Mr. KOROTAEV, Evgeniy	011
XANES investigation of the chromium dichalcogenides CuCr <sub>1-x</sub> M <sub>2</sub> S <sub>2</sub> and MCr <sub>2</sub> (01h00')	Mr. KOROTAEV, Evgeniy	012
IN-SITU INVESTIGATION OF THERMO-STIMULATED DISSOLUTION OF HYDRIDES IN TITANIUM AND ZIRCONIUM BY MEANS OF SHORT-WAVE DIFFRACTION OF SYNCHROTRON RADIATION (01h00')	Dr. LAPTEV, Roman	013
A study of deposition of nanoscale intermediary Au-S species on oxide supports from aqueous solution using XAFS and TEM (01h00')	Dr. KARACHAROV, Anton	014
In situ SR SAXS study of liquid intermediates arising during nucleation of gold sulfide nanoparticles in aqueous media (01h00')	Dr. LIKHATSKIY, Maxim	015
OBSERVATION OF GRAIN-BOUNDARY STRUCTURE FEATURES IN ALUMINIUM ALLOYS BY MEANS OF XAS AND X-RAY TOMOGRAPHY BY SR (01h00')	Dr. NIZOVSKII, Alexander	016

<b>In situ determination of the active phase in palladium nanocatalyst by X-ray absorption spectroscopy and X-ray diffraction (01h00')</b>	Mr. BUGAEV, Aram	017
<b>SAXS study of Escherichia coli Dihydropyrimidine Dehydrogenase: structural characteristics and molecular docking (01h00')</b>	Dr. SHTYKOVA, Eleonora	018
<b>Small-Angle X-Ray Scattering Study of Carbosilane Dendrimers in Hexane Solution (01h00')</b>	Dr. SHTYKOVA, Eleonora	019
<b>Unusual Properties of Structural Characteristics of Potato Virus A Coat Protein in Solution Revealed by SAXS (01h00')</b>	Dr. SHTYKOVA, Eleonora	020
<b>The role of cholesterol recognising amino acid consensuses on amphipathic structures of matrix proteins in raft membrane organisation of some enveloped viruses (01h00')</b>	Dr. SHTYKOVA, Eleonora	021
<b>New Insights into Nature of Self-Assembly of Influenza A Virus Matrix Protein M1 at Different Conditions: SAXS &amp; AFM Study, and Modeling (01h00')</b>	Dr. SHTYKOVA, Eleonora	022
<b>Nanostructural ordering of epithelial tissue of silk gland of Antheraea mylitta silkworm (01h00')</b>	Dr. VAZINA, Alvina	023
<b>Application of the <math>\chi</math>-const method on VEPP-3 in small-angle diffractometry of biological objects (01h00')</b>	Dr. VAZINA, Alvina	024
<b>Synergistic influence of HF welding on nanostructural orderliness of epithelial tissues of gastrointestinal tract (01h00')</b>	Dr. VAZINA, Alvina	025
<b>Nanostructural study of human tumour transformed tissues by X-ray diffraction methods using synchrotron radiation (01h00')</b>	Dr. VAZINA, Alvina	026
<b>X-ray diffraction data for the study of the multilevel nanostructures in Ni3Fe deformed single crystals (01h00')</b>	Prof. STARENCHENKO, Svetlana	027
<b>On the structural features of mechanically alloyed Cu-Ag and Au-Co by severe cold and cryogenic plastic deformation (01h00')</b>	Mr. TOLMACHEV, Timofey	028
<b>On the dynamical theory of the X-ray DuMond-type spectrometer (01h00')</b>	Dr. CHEN, Tesik	029
<b>Spatial-temporal diffraction of thermal neutrons by ideal deformed crystals (01h00')</b>	Dr. CHEN, Tesik	030
<b>Status of the experimental station on the fourth beamline of VEPP-3 storage ring (01h00')</b>	Mr. ANCHAROV, Alexey	031
<b>APPLICATION OF SHORT-WAVE DIFFRACTION OF SYNCHROTRON RADIATION FOR IN-SITU INVESTIGATION OF ZIRCONIUM HYDRIDES FORMATION AT GAS-PHASE HYDROGENATION (01h00')</b>	Mr. SYRTANOV, Maxim	032
<b>Small angle X-ray scattering on RE31 aptamer (01h00')</b>	Mr. ZABLUDA, Vladimir	033
<b>The investigation of the aluminum nitride formation during the aluminum nanopowder combustion in air (01h00')</b>	Dr. MOSTOVSHCHIKOV, Andrei	034
<b>The experimental station "DETONATION" at beamline 8 from 7 pole 1.3 T wiggler installed at e+e- collider VEPP-4 (01h00')</b>	Prof. TOLOCHKO, Boris Mr. KOSOV, Aleksandr	035
<b>Experimental realization of X-ray diffraction and small-angle scattering using polychromatic synchrotron radiation in the range 20-30 keV (01h00')</b>	Prof. TOLOCHKO, Boris	036
<b>The synchrotron radiation beamline "Plasma" at collider VEPP-4 (01h00')</b>	Prof. TOLOCHKO, Boris	037
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<b>The formation of silver nanoparticles by synchrotron radiation and relativistic electrons irradiating of water solution of silver salts (01h00')</b>	Prof. TOLOCHKO, Boris	039
<b>Structural study of novel lipid-dependent dimerization of human GLTP induced by point mutation (01h00')</b>	Dr. SAMYGINA, Valeriya	040
<b>Structure investigations of radiation-modified polymers (01h00')</b>	Dr. ANCHAROVA, Uliana	041
<b>Some aspects of crystal centering during X-ray high-throughput protein crystallography experiments. (01h00')</b>	Dr. GAPONOV, Yury	042
<b>Some features of the structure rearrangement in mixed and binary Zr-Ti sol xerogels. (01h00')</b>	Dr. GAPONOV, Yury	043
<b>In situ X-ray diffraction studies of Ce<sub>0.9</sub>Y<sub>0.1</sub>O<sub>2-<math>\delta</math></sub>, Ce<sub>0.65</sub>Pr<sub>0.25</sub>Y<sub>0.1</sub>O<sub>2-<math>\delta</math></sub> and Pr<sub>6</sub>O<sub>11</sub> (01h00')</b>	VINOKUROV, Zakhar	044
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<b>Ellipsometric measurement of the complex refractive index of liquids in the terahertz range (01h00')</b>	Mr. AZAROV, Ivan	049
<b>Characterization and transformation of Terahertz Bessel beams with angular orbital momentum (01h00')</b>	Mrs. OSINTSEVA, Natalia Ms. CHOPOROVA, Yulia	050
<b>Electron Beam Stability in the Energy Recovery Linac for the Lithographic Free Electron Laser (01h00')</b>	Mr. GETMANOV, Yaroslav	051
<b>System for diagnostics of local electron beam losses in microtron-recuperator at Novosibirsk Free Electron Laser beamline via registration of induced X-rays. (01h00')</b>	SEREDNYAKOV, Stanislav	052
<b>Influence of terahertz laser irradiation on the morphology of chicken hepatocytes (01h00')</b>	Mr. ZELENTSOV, Eugeny	053
<b>Deflection of THz vortex beam in non-polar liquids by means of acousto-optics (01h00')</b>	Mr. NIKITIN, Pavel	054
<b>Propagation of beams with orbital angular momentum through 1D and 2D periodic grating (an analogue of the Talbot effect) (01h00')</b>	Mr. KAMESHKOV, Oleg Ms. CHOPOROVA, Yulia	055
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<b>Beam parameter measurements and demonstration of UED at the KAERI ultrashort pulse facility (01h00')</b>	Mr. KIM, Hyun Woo	057
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<b>EXPERIENCE OF USE OF X-RAY ENERGY-DISPERSIVE AND MONOCHROMATIC DIFFRACTOMETRY FOR STRUCTURAL RESEARCHES OF BIOLOGICAL SYSTEMS USING SYNCHROTRON RADIATION (01h00')</b>	Dr. KORNEEV, Vladivir	060
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<b>Vibrating wire magnetic field measuring technique (01h00')</b>	Mr. ZORIN, Artem	075
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<b>Application of ELN-200 in deep X-ray lithography (01h00')</b>	Mr. NAZMOV, Vladimir	080
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<b>Cell for X-Ray investigation of new materials for Li-ion batteries (01h00')</b>	Mr. RUSALEV, Yury	083
<b>SR micro-XRF installation on VEPP-3 storage ring. Possibilities in increasing the spatial resolution. (01h00')</b>	Mr. SOROKOLETOV, Dmitry	084
<b>SR micro-XRF installation on VEPP-3 storage ring. An approach and difficulties in increasing the spatial resolution. (01h00')</b>	Mr. SOROKOLETOV, Dmitry	085
<b>The research of the superconducting undulator prototype with neutral poles and features of the magnetic field distribution in it. (01h00')</b>	Dr. KHRUSHCHEV, Sergey	086
<b>The new control for magnet system of KCSR. (01h00')</b>	Mr. KAPORTSEV, Evgeniy	087
<b>Multifunctional X-ray lithography station at VEPP-3 (01h00')</b>	Dr. GOLDENBERG, Boris	088
<b>THE USE OF LABORATORY-BASED X-RAY COMPUTED TOMOGRAPHY FOR THE DIAGNOSTICS OF X-RAY REFRACTIVE OPTICS (01h00')</b>	Mr. NARIKOVICH, Anton	089
<b>Experimental modeling of the impulse diffraction system with a "white" SR beam. (01h00')</b>	Dr. FEDOTOV, Mihail	090
<b>The system for monitoring of the fast vertical oscillations of VEPP-3 SR beam (01h00')</b>	Dr. FEDOTOV, Mihail	091
<b>Properties of quarter wavelength coaxial cavity for triode-type thermionic RF gun (01h00')</b>	Mr. TORGASIN, Konstantin	092
<b>The End-Station "NanoPES" at the Kurchatov synchrotron radiation source: Present status and prospects (01h00')</b>	Mr. CHUMAKOV, Ratibor	093
<b>Power supply system for corrector magnets of the European X-Ray Free-Electron Laser (01h00')</b>	Dr. BELIKOV, Oleg	094
<b>Development of laboratory Metrology for X-ray refractive lenses (01h00')</b>	Mr. ZVEREV, Dmitrii	095
<b>Cooling of the superconducting magnet with nitrogen-filled heat pipes. (01h00')</b>	Mr. TSUKANOV, Valeriy	096
<b>The structural study of gold catalytic nanosystems by XAFS method (01h00')</b>	Dr. KRIVENTSOV, Vladimir	097
<b>EXAFS study Pt-Me/carbon supported catalytic systems (01h00')</b>	Dr. KRIVENTSOV, Vladimir	098
<b>Structural determination of nano-dispersed Pd catalysts (01h00')</b>	Dr. KRIVENTSOV, Vladimir	099
<b>MECHANISMS OF COMBUSTION AND STRUCTURE FORMATION IN SHS- SYSTEMS WITH PARTICIPATION OF TWO AND MORE CHEMICAL REACTIONS (01h00')</b>	Prof. LEVASHOV, Evgeny	100
<b>GLOBAL RESEARCH INFRASTRUCTURES (GRI) ON NEW ESFRI ROADMAP – EUROPEAN PERSPECTIVE (01h00')</b>	Dr. MELKONYAN, MARINE	101

**Spartacus Ballet. - (17:00-21:00)**

## Wednesday 06 July 2016

### **Invited Talks: Part II - Conference Hall (09:00-11:00)**

- Conveners: Prof. ANDO, Masami (Tokyo University of Science)

time	title	presenter
09:00	Semiconductor spectroscopy with infrared and terahertz free-electron lasers (00h40')	Dr. SCHNEIDER, Harald (Helmholtz-Zentrum Dresden-Rossendorf)
09:40	Novosibirsk free electron laser as a user facility (00h40')	Prof. KNYAZEV, Boris (Budker Institute of Nuclear Physics)
10:20	The nanosecond time resolved X-ray diffractometry with synchrotron radiation for exploration of fast processes in solids (00h40')	Prof. TOLOCHKO, Boris (Institute of solid state chemistry and mechanochemistry SB RAS)

### **Coffee - 4th floor foyer (11:00-11:20)**

### **FEL-based study and THz radiation application: Part I - Parallel session Hall (11:20-13:00)**

- Conveners: Prof. Potaturkin, Oleg (Institute of automation SB RAS)

time	title	presenter
11:20	FEL-based study of intervalley elastic scattering of donor excited states in multivalley semiconductors (00h40')	Prof. SHASTIN, Valery (IPM RAS)
12:00	Synchrotron radiation X-ray tomographic microscopy, noble gas mass spectroscopy, infrared and Raman microscopy correlated study of the Itokawa asteroid particles returned by the Hayabusa space probe (00h30')	Dr. PAVLOV, Sergey (German Aerospace Center)
12:30	Single-pulse high-resolution spectroscopy on NovoFEL: methods, applications and development (00h30')	Dr. KUBAREV, Vitaly (BINP)

### **X-ray structural analysis: Combustion and detonation - Conference Hall (11:20-13:00)**

- Conveners: Prof. Lyakhov, Nikolay (Institute of Solid State Chemistry and Mechanochemistry SB RAS)

time	title	presenter
11:20	Hydrostatic and shock-wave compression of a molecular crystals (00h40')	Dr. SMIRNOV, Ewgeny (RFNC-FNIITF, Snezhinsk, Russia)
12:00	Upgrade of the detector for imaging of explosions. (00h20')	Mr. SHEKHTMAN, Lev (Budker Institute of Nuclear Physics)
12:20	Synchrotron radiation methods for registration of the ejection of particles from the free surface of shock-loaded metals (00h20')	Dr. TEN, Konstantin (LIH SB RAS)
12:40	Novel technique for spatially resolved imaging of molecular bond orientations using X-ray birefringence: applications and developments (00h20')	Dr. DOLBANYA, Igor (Diamond Light Source)

### **Lunch - (13:00-14:00)**

### **FEL-based study and THz radiation application: Part II - Parallel session Hall (14:00-15:40)**

- Conveners: Prof. Shkurinov, Alexander (Faculty of Physics and International Laser Center, Lomonosov Moscow State University, Moscow, Russia)

time	title	presenter
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14:00	Pump-probe setup for far-infrared subnanosecond time-resolved spectroscopy at the Novosibirsk free electron laser (00h20')	Ms. CHOPOROVA, Yulia (Budker Institute of Nuclear Physics)
14:20	Terahertz surface plasmons on real metal-dielectric structures: comparison of theory and experiments (00h20')	Mr. GERASIMOV, Vasily (Budker Institute of Nuclear Physics SB RAS)
14:40	Raman scattering at terahertz frequencies enabled by an infrared free electron laser (00h20')	Dr. PAVLOV, Sergey (German Aerospace Center)
15:00	Carrier dynamics in doped Ge measured at the free electron laser facility FELBE (00h20')	Mr. DESSMANN, Nils (Humboldt-University Berlin)
15:20	High temperature quasi stationary terahertz optical discharge on NovoFEL (00h20')	Dr. KUBAREV, Vitaly (BINP)

### **X-ray structural analysis: Small angle scattering - Conference Hall (14:00-15:40)**

- Conveners: Dr. Shmakov, Alexander (Boreskov Institute of Catalysis SD RAS)

time	title	presenter
14:00	Status of dynamic diagnostics of plasma material interaction based on synchrotron radiation scattering at the VEPP-4 beamline 8 (00h40')	Dr. ARAKCHEEV, Aleksey (Budker INP)
14:40	Structural phase transformations study of brittle refractory metals and intermetallics with L12 structure using synchrotron radiation (00h20')	Dr. PILYUGIN, Vitaliy (M.N. Mikheev Institute of Metal Physics of the Ural Branch of the Russian Academy of Sciences (IMP UB RAS))
15:00	Zero-area THz optical pulses in gases. (00h20')	Dr. CHESNOKOV, Evgeniy (Institute of Chemical Kinetics)
15:20	Investigation of influence NH <sub>4</sub> VO <sub>3</sub> +HOCH <sub>2</sub> CH <sub>2</sub> OH oxidation of ASD-4 powder (00h20')	Mr. ESELEVICH, Danil (ISSC UB RAS)

### **Coffee - 4th floor foyer (15:40-16:00)**

### **FEL-based study and THz radiation application: Part III - Parallel session Hall (16:00-18:00)**

- Conveners: Dr. Shevchenko, Oleg (BINP)

time	title	presenter
16:00	Ultrafast Pump-probe Facility based on an RF Photogun (00h40')	Dr. JEONG, Young Uk (Korea Atomic Energy Research Institute)
16:40	Intensity and timing jitter compensated ultra-fast experiments at accelerator-driven photonsources (00h20')	Dr. KOVALEV, Sergey (HZDR)
17:00	Duration of coherent synchrotron radiation pulses accessed via time-resolving and correlation techniques (00h20')	Mr. POHL, Andreas (Humboldt-University Berlin)
17:20	Formation of nanosized metal hydrosols under the influence of terahertz laser radiation (00h20')	Dr. KOZLOV, Alexander (Voevodsky Institute of chemical kinetics and combustion SB RAS)

### **X-ray structural analysis: Diffraction experiments - Conference Hall (16:00-18:00)**

- Conveners: Prof. Tolochko, Boris (Institute of solid state chemistry and mechanochemistry)

time	title	presenter
16:00	In situ diffraction experiments at VEPP-3 beamlines #2 and #6. (00h20')	Dr. SHMAKOV, Alexander (Boreskov Institute of Catalysis SD RAS)

16:20	Nanodomain states of strontium ferrites and their structural transformations (00h20')	Dr. ANCHAROVA, Uliana (ISSCM SB RAS)
16:40	The high-pressure diffraction studies of potassium and complex carbonates: structural trends and stability (00h20')	Dr. RASHCHENKO, Sergey (Institute of geology and mineralogy SD RAS)
17:00	Methods of angular scanning in imaging and topography (00h20')	Dr. PODURETS, Konstantin (NRC "Kurchatov Institute")
17:20	The study of the phase composition of ceramic materials obtained by SHS from previously mechanically activated reaction mixtures Ti-Cr-B (00h20')	Dr. KURBATKIINA, Victoria (National University of Science and Technology "MISiS)

**Conference Dinner - (19:00-22:00)**

## Thursday 07 July 2016

### **Invited Talks: Part III - Conference Hall (09:00-10:00)**

- Conveners: Prof. Vinokurov, Nicolay (Head of Lab)

time	title	presenter
09:00	FEL-pumped Silicon lasers based on hydrogen-like impurity centers (00h30')	Prof. HÜBERS, Heinz-Wilhelm (German Aerospace Center (DLR) and Humboldt University Berlin)
09:30	High-intense femtosecond radiation with gas medium and gas cluster beams (00h30')	Prof. SHKURINOV, Alexander (Faculty of Physics and International Laser Center, Lomonosov Moscow State University, Moscow, Russia)

### **X-ray Spectroscopy: Part I - Conference Hall (10:00-11:00)**

time	title	presenter
10:00	Current status of EXAFS station of SSTRC. Application of XAFS spectroscopy for the study of promising functional nanomaterials. (00h20')	Dr. KRIVENTSOV, Vladimir (Boreskov Institute of Catalysis)
10:20	Application of SR methods for the study of nanocomposite materials for Hydrogen Energy. (00h20')	Prof. SADYKOV, V.A. (Boreskov Institute of Catalysis of SB RAS, Novosibirsk, Russia)
10:40	Agilent Technologies solutions in vacuum equipment for high energy physics (00h20')	Mr. RUKAVISHNIKOV, Mikhail (Scientific equipment group)

### **Coffee - 4th floor foyer (11:00-11:20)**

### **X-ray Spectroscopy: Part II - Conference Hall (11:20-13:00)**

- Conveners: Dr. Kriventsov, Vladimir (Boreskov Institute of Catalysis)

time	title	presenter
11:20	XAFS spectroscopy - a useful tool for determining structure parameters and the electronic state of various nanosystems (00h20')	Dr. ERENBURG, Simon (Nikolaev Institute of Inorganic Chemistry SB RAS, Budker Institute of Nuclear Physics SB RAS)
11:40	XAFS study of catalytic nanosystems promising for environmental catalysis (00h20')	Mr. YAKIMCHUK, E.P. (Boreskov Institute of Catalysis of SB RAS, Novosibirsk, Russia)
12:00	Near-surface regions of chalcopyrite studied using XPS, HAXPES, XANES and DFT (00h20')	Prof. MIKHLIN, Yuri (Institute of Chemistry and Chemical Technology of the Siberian Branch of the Russian Academy of sciences)
12:20	Synchrotron-based experimental study and theoretical simulation of hydrogen desorption for solid-state hydrogen storage material – Mn(BH <sub>4</sub> ) <sub>2</sub> (00h20')	Mr. PANKIN, Ilia (Southern Federal University, IRC "Smart materials")
12:40	Probing magnetic sublattices in multiferroic Nd <sub>0.5</sub> Ho <sub>0.5</sub> Fe <sub>3</sub> (BO <sub>3</sub> ) <sub>4</sub> single crystal via hard x-ray magnetic circular dichroism (00h20')	Dr. PLATUNOV, Mikhail (Kirensky Institute of Physics)

**Lunch - (13:00-14:00)****X-ray apparatus: Part I - Conference Hall (14:00-15:40)**

- Conveners: Dr. Snigirev, Anatoly (Immanuel Kant Baltic Federal University)

time	title	presenter
14:00	Coherent hard X-ray microscopy for the characterization of mesoscopic materials (00h40')	Dr. SNIGIREVA, Irina (European Synchrotron Radiation Facility)
14:40	3D X-ray lithography (00h20')	Mr. NAZMOV, Vladimir (Budker Institute of Nuclear Physics)
15:00	Manufacturing of high resolution X-ray masks for LIGA technology in SSTRC (00h20')	LEMZYAKOV, Aleksey (BINP SB RAS)
15:20	DIAMOND REFRACTIVE LENSES FOR DIFFRACTION-LIMITED X-RAY SOURCES (00h20')	Mr. POLIKARPOV, Maxim (IKBFU)

**Coffee - 4th floor foyer (15:40-16:00)****X-ray apparatus: Part II - Conference Hall (16:00-17:30)**

- Conveners: Dr. Mezentsev, Nikolay (Budker Institute of Nuclear Physics)

time	title	presenter
16:00	Metrological station "Cosmos". Current status. (00h20')	Mr. NIKOLENKO, Anton (BINP)
16:20	Current driven wire based magnetic measurement systems (00h20')	Mr. ZORIN, Artem (BINP)
16:40	Performance and characterisation of CsI:Tl thin films for X-ray imaging application (00h20')	Mr. KOZYREV, evgeny (binp)
17:00	Development of compact SR light sources in JAI and in UK (00h30')	Prof. SERYI, Andrei (John Adams Institute)

**Conference Closing - Conference Hall (17:30-18:00)**