

STI2011 SCIENTIFIC PROGRAMME

Monday, June 6, 2011

- 14:00 - 15:00 Registration in hotel «Dubna»
15:00 - 16:30 Excursion «Dubna sights»
16:30 - 18:00 Excursion to the reactor IBR-2M
19:00 Welcome Party (restaurant in hotel «Dubna»)

Tuesday, June 7, 2011

- 9:00 Registration at the Conference Site
Frank Laboratory of Neutron Physics (FLNP), Conference Hall
- 10:00 Opening and Welcome
- PLENARY SESSIONS**
Chairman: O.Stephansson
- 10:15 **A.V.Belushkin.** Status and research prospects at the IBR-2M pulsed reactor
10:45 **H.-R.Wenk.** Advances in neutron texture analysis and applications in earth and material sciences
- 11:30 – 12:00 Coffee Break
- Chairman: H.-R.Wenk**
- 12:00 **J.H.Behrmann, M.Stipp, K.Ullemeyer.** Textural, structural and elastic wave velocity models for involved geophysical imaging of subduction zone
12:30 **K.Ullemeyer, J.H.Behrmann.** Optimization of the SKAT diffractometer for texture measurements on geological samples
- 13:00 – 15:00 Lunch
- Chairman: F.R.Schilling**
- 15:00 **Ch.Scheffzük, K.Walther, A.Frischbutter, F.R.Schilling.** The strain/stress diffractometer EPSILON-MDS and geoscientific applications
15:30 **P.Mikula, M. Vrana, J.Saroun, B.S.Seong, V.Em, W.Woo.** Recent instrumentation developments for strain/stress measurements by neutron diffraction
16:00 **K.Walther, A.Bulkin, A.Frischbutter, V.Kudryashov, Ch.Scheffzük, F.Schilling.** The system of neutron guides for the diffractometers Epsilon and SKAT
- 16:30 – 17:00 Coffee Break
- Chairman: J.H.Behrmann**
- 17:00 **S.Konsulke, K.Walther, K.G.van den Boogaart.** Adjustent of the TOF neutron diffractometer Epsilon
17:30 **A.M.Balagurov.** Dubna material studies activity in the frame of IAEA and ISTC research projects
18:00 **R.Kampmann, M.Haese-Seiller, P.Staron, H.-G.Brokmeier, M.Müller, A.Schreyer.** Perspectives for materials investigations at the structured pulse engineering diffractometer (SPEED)

Wednesday, June 8, 2011

PLENARY SESSIONS

Chairman: A.Frischbutter

- 9:30 **H.Kern.** Measurements of P- and S-wave velocities on crustal rocks and texture-based velocity calculations: an aid in the interpretation of seismic data
- 10:00 **F.R.Schilling.** Geomaterial sciences under extreme conditions
- 10:30 **B.Leiss,** J.M.Walter, M.Stipp, H.Klein, B.H.Hansen, W.F.Kuhs, K.Ullemeyer. Development of large sample environments for geological materials at the future POWTEX – neutron diffractometer, FRM-II, Garching, Germany
- 11:00 **T.Lokajicek,** T.I.Ivankina, A.N.Nikitin. Anisotropy and texture of the lithosphere rocks at high pressures – based on ultrasonic and neutron diffraction measurements
- 11:30 – 12:00 Coffee Break

Chairman: H.Kern

- 12:00 **V.K.Ignatovich.** A model of the Earthquake surface waves
- 12:30 **M.V.Rodkin,** A.N.Nikitin, R.N.Vasin. Neutron scattering and physics of the earthquake source
- 13:00 – 15:00 Lunch

Chairman: P.Mikula

- 15:00 **V.I.Vettegren,** G.A.Sobolev, S.M.Kireenkova, Yu.A.Morozov, A.I.Smul'skaya, V.B.Kulik, R.I.Mamalimov. Studying of nanocrystals in rocks by Raman and infrared spectroscopy
- 15:30 **V.V.Lytvynenko,** M.I.Bazaleev, S.E.Donets, T.I.Ivankina, L.M.Kazban, V.F.Klepikov, Yu.F.Lonin, A.N.Nikitin, A.G.Ponomarev, V.N.Robuk, V.T.Uvarov, V.V.Uvarov. Analysis of the mechanisms of the high-current relativistic electron beam influence on metallic materials and rocks
- 16:00 **T.V.Tropin,** M.V.Avdeev, V.L.Aksenov, L.Rosta, V.M.Garamus, N.N.Rozhkova. Pore structures in shungites as revealed by small-angle neutron scattering
- 16:30 **Yu.V.Taran,** A.M.Balagurov, B.M.Sabirov, A.M.Venter. Neutron diffraction stress analysis of explosive bonding strainless steel-titanium adapter for ILC
- 17:00 – 17:30 Coffee Break

17:00 – 18:30

POSTER SESSION

- 19:30 **Conference dinner** (restaurant in hotel «Dubna»)

Thursday, June 9, 2011

PLENARY SESSIONS

Chairman: D.M.Levin

- 9:30 **S.Matthies.** On the estimation of elastic properties of multiphase textured materials
- 10:00 **V.B.Yakovlev.** Modern approaches in property analysis of polycrystalline textured media in geo- and material science by neutron diffraction data
- 10:20 **I.V.Lavrov.** Calculation of the effective dielectric and transport properties of inhomogeneous textured materials
- 10:30 **R.N.Vasin.** Rietveld texture analysis of SKAT diffractometer data
- 11:00 **V.B.Zlokazov.** Modified Rietveld method for the estimation of polycrystall deformation
- 11:30 – 12:00 Coffee Break

Chairman: A.M.Balagurov

- 12:00 **C.-G.Oertel,** W.Skrotzki, R.Tamm, K.Kegler. Deformation and recrystallization textures in iron aluminides
- 12:30 **G.D.Bokuchava.** Neutron Fourier diffractometer FSD for residual stress studies in advanced materials and industrial components
- 12:50 **V.V.Sumin,** I.V.Papushkin, R.N.Vasin, A.M.Venter, A.M.Balagurov. Determination of the residual stress tensor in textured zirconium alloy by neutron diffraction
- 13:10 **Closing of the Conference STI2011**
- 13:30 – 15:00 Lunch

Friday, June 10, 2011

- 8:30 – 19:00 **Excursion to the Juri Gagarin Russian State Science Research Cosmonauts Training Center, Zvezdnyj Gorodok, Moscow Region**

POSTER SESSION (June 8, 2011)

- V.V.Aksenov.** Influence of nonlinear processes in seismic foci on released energy
- V.V.Bardushkin,** A.N.Nikitin, V.B.Yakovlev. Influence of the quartz-biotite rocks microstructure on the velocities of longitudinal elastic waves propagation
- T.Bayaraa,** A.N.Nikitin, V.A.Tselmovich, A.Ya.Saltykovsky, T.I.Ivankina, G.Komatsu, J.Ormö. Complex analysis of impact origin Tsenkher ring structure (Mongolia)
- A.Frischbutter,** K.Walther, Ch.Scheffzük, R.Naumann. Texture-residual strain relation within composite rocks from a tectonic thrust belt (crossing the Gotthard-Basal Tunnel route near Bodio, Switzerland). I. Experiments on zuckerdolomit from the Piora Mulde (Gotthard massiv)
- A.Frischbutter,** K.Walther, Ch.Scheffzük, R.Naumann. Texture-residual strain relation within composite rocks from a tectonic thrust belt (crossing the Gotthard-Basal Tunnel route near Bodio, Switzerland). II. Experiments with granodioritic Leventina gneiss sample
- D.M.Levin.** Accumulation of the local zones of stress concentrations during multicycle fatigue
- T.A.Lychagina,** D.I. Nikolayev. Neutron diffraction texture study of Carrara marble
- G.V.Markova,** E.S.Klueva, N.V.Melnichenko, V.K. Zelenko. On the estimation of the internal stress distributions along the barrel length of a sniper rifle
- G.M.Mironova.** The concept of metadiagrams in condensed matter research
- I.V.Papushkin,** V.V.Sumin, G.D.Bokuchava, A.M.Balagurov, D.V.Sheptyakov. Determination of residual stresses in precipitation hardening steels by neutron diffraction
- L.T.N.Phan,** T.I.Ivankina, A.A.Kruglov, T.Lokajicek, A.N.Nikitin, R.N.Vasin Propagation of quasi-longitudinal elastic wave at an interface between isotropic and anisotropic media: theoretical and experimental investigations
- V.Rudajev,** J.Vilhelm, R.Živor, T.Lokajíček. Influence of structure and cracks distribution on P-wave velocity anisotropy in rocks – laboratory and field study
- Yu.V.Taran,** A.M.Balagurov, A.M.Venter. Investigation of biaxially fatigued austenitic stainless steel sample by neutron diffraction
- Yu.V.Taran,** A.M.Balagurov. Correction of diffraction peak shift due to partial immersion of a gauge volume in stressed sample