Sal

Bundesministerium für Bildung

und Forschung

GFZ

Helmholtz Centre POTSDAM

Stress and Texture Investigations by Means of Neutron Diffraction

6-9 June 2011, Dubna, Russia

Organized by:

GFZ German Research Centre for Geosciences, Potsdam, Germany Frank Laboratory of Neutron Physics, Joint Institute for Nuclear Research, Dubna, Russia

Sponsors:

Federal Ministry of Education and Research, Germany Russian Foundation for Basic Research



The objective of this conference is to bring together scientists working in geosciences and materials science to discuss recent advances in the application of neutron diffraction and other techniques for stress and texture measurements in these areas of science.

Another aim of the conference is to introduce timeof-flight (TOF) neutron diffraction instruments at the IBR-2M pulsed reactor in Dubna to the stress and texture communities. From 2007 to 2010 the IBR-2 reactor has undergone a drastic refurbishment of its main units, including its nuclear core, vessel, control devices, moderator system, etc. This period was used in particular to upgrade two diffractometers operated by the joint German-Russian team on the basis of the bilateral Agreement, Epsilon and SKAT diffractometers, which are optimized for stress and texture investigations, respectively. Both diffractometers are located at a long flight path of more than 100 m providing very good TOF resolution.

At present, they are ready to meet the needs of a large user community.





Topics

- Neutron scattering for stresses and textures: Instruments and methods;
- Stress and texture analysis: Supplementary experimental techniques;
- Stress and texture analysis: New theoretical approaches;
- Fundamental and applied problems of geology and geophysics;
- Constructional materials: Science and objectives.

Programme Committee

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The Conference will be held at the Conference Hall of the Frank Laboratory of Neutron Physics of JINR

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