

P R E F A C E

We would like to introduce the report of the scientific activity of the Frank Laboratory of Neutron Physics for 1995. The first part is a brief review of the experimental and theoretical results of investigations in condensed matter physics, nuclear physics and applied research. The second part presents the investigations which characterize the main directions of research in greater detail. The reader can receive a more complete picture of the research carried out in the Laboratory from the list of publications for 1995 following Part 2.

In 1995, the Laboratory Directorate paid special attention to the Laboratory's basic facilities. On 27 March 1995, the IBR-2 reactor resumed regular operations with a new movable reflector, PO-2R, the third movable reflector since the IBR-2 startup. The concept for modernization of IBR-2 for the period from 1996 to 2005 was elaborated.

Considerable advance has been made in the realization of the project for a new source of resonance neutrons - IREN - which is to replace the IBR-30 booster, currently in operation. Solution of the problems associated with the fulfilment of obligations for constructing the main parts of the accelerator by the Institute of Nuclear Physics, Siberian Branch, Russian Academy of Sciences, and the transference of the nuclear fuel needed the multiplying target by the Ministry of Atomic Energy of the Russian Federation created the necessary conditions for a successful execution of the Project in 1998.

Further development of the User Policy continued, aimed at attracting a larger number of physicists, chemists, biologists, and specialists in materials science to carry out experiments at the IBR-2 reactor. User Committees were formed for the four research directions: diffraction, small-angle scattering, inelastic scattering, and polarized neutrons (reflectometry and depolarization). The first call for proposals resulted in 76 applications requesting 406 experimental days on 7 of the 12 IBR-2 spectrometers.

The financial situation in the Laboratory did not change noticeably in 1995. The basic facilities and technical infrastructure were financed from the JINR budget as in previous years. Instrument upgrades and the scientific program were provided for mainly from financial contributions in the frame of JINR-FRG and JINR-Hungary agreements for cooperation, as well as from other programs and funds.

The Frank Laboratory of Neutron Physics is one of the leading neutron centers of Europe and continues to develop in spite of the difficulties its host country is currently experiencing.

V.L.Aksenov
Director

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