

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 1996. 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 1996 following Part 2.

A technical project for the IBR-2 modernization has been developed. "Agreement on realization of the plan for upgrading the IBR-2 reactor in 1996-2005" has been drawn up and approved. If we manage to successfully implement the modernization project, by 2005 a new unique reactor which will exhibit record parameters will work for 25-30 years will be created.

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. In 1996, the number of submitted proposals for experiments was 153, the largest for the recent 3 years. The proposals came from 23 countries, including nonmember-states of JINR. On the average, the requested beam time was 2.5 times larger than that available.

The financial situation in the Laboratory changes drastically compare with the previous years. Deficit financing and delays in funding the IBR-2 modernization project (about 25% of the plan) resulted in the suspension of work in all directions of the modernization project, because of deficit financing, a considerable delay in fulfilment of the IREN project has to be noted. 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.

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Director

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