

PREFACE

We would like to offer the readers the scientific activity report of the Frank Laboratory of Neutron Physics for 2010. The first part of the report presents a brief review of the experimental and theoretical results achieved in the main scientific directions – condensed matter physics, neutron nuclear physics and applied research. The second part includes the reports on the modernization of the IBR-2 pulsed reactor. The third part is concerned with the development and creation of elements of neutron spectrometers for condensed matter investigations. The fourth part presents the experimental reports that cover the main scientific directions in greater detail. The list of publications for 2010 completes the report.

In 2010 the main achievements of the Laboratory were:

- physical start-up of the IBR-2 reactor after a four-year period of modernization;
- modernization of some spectrometers at the IBR-2 reactor and continuation of the development of new facilities for neutron studies in condensed matter physics;
- 800-hour operation of the IREN facility for experiments;
- development of scientific experiments at local facilities and in collaboration with other scientific centers in Russia and abroad.

FLNP has cooperation agreements in the field of neutron investigations with almost 200 scientific institutes and universities from 40 countries from all over the world. A significant contribution to this cooperation is made by the JINR Member States.

The FLNP staff consists of more than 400 employees. The scientific staff includes 43 Ph.D. and 14 D.Sci. researchers and more than 50 researchers and specialists from the JINR Member States (besides the Russian Federation) with almost half of them under 35 years of age.

The organization of annual conferences and schools covering all research fields of FLNP activities helps to recruit young specialists — one of the top priority tasks of the FLNP Directorate.

All these facts confirm that the Laboratory continues to develop successfully and dynamically, carrying out investigations in the interests of the JINR Member States.

A.V. Belushkin
Director

A handwritten signature in blue ink, appearing to read 'Belushkin', is written over a horizontal line.