FOREWORD

This year, we adopt a new presentation of the activities of the Laboratoire Léon Brillouin (LLB), which emphasizes the scientific highlights and the more recent developments accomplished both by the researchers of the laboratory and by external users.

The LLB is a laboratory dependent both on the Centre National de la Recherche Scientifique (CNRS) and the Commissariat à l'Energie Atomique (CEA). It has been created with a triple purpose :

a) to be a large national facility where neutron scattering experiments proposed by external users can be realised in the best conditions,

b) to train young researchers, in particular, giving the opportunity of preparing PhD thesis essentially based on neutron scattering techniques and instrumentation,

c) to have its own research activity based on the work of permanent or semi-permanent groups having a coherent organisation of their research activities, centred on the use of neutron scattering.

Certainly, the three types of activities largely overlap each other, and the scientific evolution of the laboratory since its creation shows that it adapted constantly to the more recent developments both in research and in technology. It is even such overlap that originates some original studies based, for example, in new instruments or in extended researches less compatible with short time periodic applications.

It is worth mentioning in this context the various relations established with several partners in France and in many European countries. In particular, the participation of the LLB to the Large Scale Facilities Programme of the European Union increased substantially the number of European users since 1993. As a consequence, the LLB is recognized as one of the best medium flux neutron sources of the world.

The following pages illustrate some of the activities of the LLB. The report focuses mainly on the research activities performed, totally or in collaboration, by the teams of the laboratory, but it shows as well some highlights of experiments totally performed by external users. The examples are far to be exhaustive and cannot cover all the domains of research studied by neutron scattering. Other reports summarize the ensemble of the activity performed at the LLB.

The LLB, the only French national neutron scattering facility, benefits of the quality of one of the most recent neutron sources in the world, almost exclusively dedicated to research and run in a remarkable way by the Commissariat à l'Energie Atomique. In this way, the LLB can ensure the important responsibility of keeping alive and active a large community of researchers in many different domains, for whom neutron scattering represents an essential tool of research. This large community of French users issued from Physics, Chemistry, Biology, Geophysics and Material Sciences is aware of the importance of this neutron source and its 25 spectrometers.

We believe, with others, that neutron scattering will develop still more in France and in Europe as one of the major techniques of fundamental and applied research and that the LLB will continue to occupy, in the future, a central role in this development.

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