Foreword

Neutron and X-ray Scattering Techniques have proved so successful in condensed matter studies that a wide variety of sample environments have been developed in consequence. Many external physical parameters, such as temperature, pressure, magnetic field, can be varied in order to investigate physical phenomena. Furthermore, the development of intense sources of radiation makes it possible to study in real time the response of an increasing number of systems to external time-dependent conditions.

The Institut Laue-Langevin, as a user oriented institution operates a substantial sample environment group whose function is to develop and optimise the techniques appropriate to neutron scattering. Since other neutron and X-ray research centres have similar technical support groups, it was felt timely to unite the scientists and technicians working in this expanding field in the occasion of a workshop entitled « Sample Environments in Neutron and X-ray Experiments ». The aim of the workshop was to exchange views and ideas on general techniques, and to discuss recent achievements and future developments and so to stimulate collaboration between experimentalists from different research centres.

The proceedings contain ideas and suggestions for important developments and should be of considerable value to anyone involved in sample environment techniques. Papers have been organized by field of interest. These proceedings are not however limited to technique, but discuss the science which becomes available to study by the complementary use of pressure, temperature, magnetic fields, pulsed environments, etc... combined with intense X-ray and neutron scattering techniques.

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