Proceedings of the Xth International Symposium on NQR Spectroscopy


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Preface

The Xth International Symposium on Nuclear Quadrupole Resonance Spectroscopy at Takayama was, as the foregoing ones, a true international event with more than one third of the attendees from outside Japan. The interdisciplinarity of the field clearly shows up in the contributions presented.

In the last three years, the discovery of high temperature superconductors has opened up a new section of NQR spectroscopy. Consequently, more than 10 papers on NQR in high-\(T_c\) superconductors can be found in the conference proceedings. The use of NQR-studies in biochemistry is now well established, as shown by the report of Y. Hiyama and the application of nuclear quadrupole resonance to surface science is most probably a coming field. There is also progress in the theory of nuclear quadrupole interactions in molecules – an inclusion of microwave spectroscopical studies into the program of NQR-Symposia would be a valuable addition, especially for a fruitful discussion of experimental results in the light of quantum theory.

The majority of contributions to the symposium came from the field of chemistry and solid state chemistry. Chemical bond, phase transitions, and dynamical properties of solids are topics of a major part of the contributions to the symposium. Progress in NQR as an important method in the study of hyperfine interactions is still going on.

The papers are arranged under the following headings:

1) Structure and Bonding  
2) Biological System  
3) Complex Salts  
4) Solid State Properties, Phase Transitions  
5) Theory  
6) Superconductors, Metals, Semiconductors  
7) Dynamical Properties of Matter, Relaxation  
8) Surfaces  
9) Methods (Theory and Experiment)  

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