

## REVIEWS OF BOOKS

K.A. Müller, H. Thomas (eds.): **Structural Phase Transition II**, Topics in Current Physics, Vol. 45, Springer-Verlag, Berlin, Heidelberg 1991.

As with previous volume of the Structural Phase Transitions Volume II includes authoritative articles on the experimental investigations of the static and dynamical phenomena occurring near the phase transitions. Volume II concentrates on the radiospectroscopic studies and contains two chapters: the first on electron paramagnetic resonance (EPR) written by K.A. Müller and H. Thomas and the second on nuclear magnetic and nuclear quadrupolar resonance (NMR-NQR) written by F. Borsa and A. Rigamonti. Both chapters provide unique introduction to the field for the beginners, along with a clear presentation of the recently obtained results and a comprehensive list of references.

The first chapter is concerned with the application of the EPR technique for detecting structural phase transitions and for investigating, with high precision, the order parameter and its dependence on temperature and stress. The following subjects are covered: ferroelectric phase transitions in oxides ( $\text{BaTiO}_3$  and  $\text{KNbO}_3$ ), antiferrodistortive transitions ( $\text{SrTiO}_3$ ,  $\text{LaAlO}_3$ ,  $\text{PrAlO}_3$ ), multicritical points, order-disorder transitions and incommensurate phases. The chapter 2 deals with NMR and NQR techniques. NMR and NQR methods although less sensitive than EPR provide important information on dynamical properties of the system, especially on relaxation processes. The main interest of the authors is shifted towards disordered systems (spin glasses, dipolar, quadrupolar and orientational glasses, amorphous materials, charge density waves, incommensurate phase transitions, intercalated laminar compounds, mixed crystals with uniform and non-uniform order etc).

In my opinion this book is unique in the depth of its treatment of the experimental aspects of the structural phase transitions. Every serious researcher in this field should have access to this book.

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