

REVIEWS OF BOOKS

A.P. Guimarães

Magnetism and Magnetic Resonance in Solids

John Wiley and Sons, New York 1998

Having had a great number of books on magnetism and magnetic resonance already in print, one might wonder what new could be said in these fields being explored for so many years. As surprising as it may seem, Professor Guimarães does indeed provide a new and interesting approach. It may be that his active work in the field of nuclear magnetic resonance in magnetic materials is responsible for this. Clearly, this book is written by a still active researcher. The researcher who is well known and respected by the magnetic community.

This short volume is intended to be an introduction to two fascinating subjects: magnetism of solids and nuclear magnetic resonance. On the whole, I think the author succeeds in his goal and his introduction is a good one to both subjects.

The book consists of three parts. Part I of the book, comprising about a half of the volume, deals with the analysis of the magnetic properties of solids. These topics are treated fully and with authority. A section dealing with magnetism of itinerant systems seems to be especially interesting. The next part deals with general consideration of hyperfine interactions in solids with special emphasis on metals.

The book ends with two chapters devoted to the problem of nuclear magnetic resonance and ferromagnetic resonance in magnetically ordered solids. This book seems to be appropriate not only for students and scientists working directly in the field. Since at present scientists from disciplines ranging from solid state physics to biology and even medicine are currently using various magnetic and resonance methods, this book will be very useful also for these readers.

The book is very well prepared. The text is supplemented with numerous exercises, solutions, and tables. There are also suggestions for further reading. I enjoyed reading *Magnetism and Magnetic Resonance in Solids* and will keep it in my personal library.

Henryk Szymczak