

## Book Review

---

### *Magnetic Properties of Fine Particles*

J.L. Dormann and D. Fiorini (eds.), Proceedings of the International Workshop on Studies of Magnetic Properties of Fine Particles and their relevance to Materials Science, Rome, Italy, November 4–8, 1991, Elsevier Science Publishers, North Holland, Amsterdam, 1992, ISBN 0-44489552-3, 432 pp., US\$ 171.50.

This book represents the proceedings of a Workshop on “Studies of Magnetic Properties of Fine Particles and their relevance to Materials Science” held in November 1991 at “Area della Ricerca di Roma”. As stated in the Foreword the purpose of the workshop was “to advance the understanding of the fundamental properties of fine magnetic particles and to discuss the latest developments in both theoretical and experimental aspects; a special emphasis was placed on the applications in different branches of science and technology”.

The contents are divided into 8 chapters: Relaxation Processes; Preparation and Characterization; Magnetic properties: Theory and Experiment; Surface properties; Quantum Tunneling; Optical and Magneto-optical Properties

(the shortest part with two contributions) and Magnetic Fluids and Applications (the longest part with 13 contributions).

In view of the technical and economic importance of the magnetism of fine particles it is amazing how little has been published up until now. This book fills a gap in the existing literature, and it covers a wide range, *e.g.* from Preparation of fine particles (G.C. Hadjipanayis *et al.*, pp. 35–47) to Magnetic fine particles in biological systems (D.P.E. Dickson and R.B. Frankel, pp. 393–403). It is therefore an excellent introduction into the topic, providing a good state of the art at present also. As is the case with other Conference proceedings, the design changes from contribution to contribution, even the layout in type-written articles — a feature unnecessary in the times of internationalized word processor programmes! Another draw back is that there is no subject index, which would facilitate a search drastically.

Nevertheless, most of the articles are well written and therefore enable even non-specialists to realize what is happening in this important area of science and technology.

Ch.J. Raub