

Book Reviews

Magnetic Glasses, by K. Moorjani and J.M.D. Coey, Vol. 6 in the series *Methods and Phenomena*, edited by S.P. Wolsky and A.W. Czanderna, Elsevier, Amsterdam, 1984, price Dfl. 330.

The book consists of 525 pages, 333 figures and 1250 references and contains a valuable bibliography of conferences and proceedings on related subjects. It has well-prepared indexes of authors, chemical formulae and subjects. The contents are divided into eight chapters:

- (1) Introduction (the nature of glass, magnetism in non-crystalline structures, collective magnetic order).
- (2) Preparation and characterisation (melt quenching, deposition techniques, characterization of glasses).
- (3) Atomic structure (structural data, models).
- (4) Ferromagnetic interactions: metallic glasses (magnetic moment, exchange interactions, defects and anisotropy).
- (5) Antiferromagnetic interactions: insulating glasses (oxides).
- (6) Random anisotropy: rare earth alloys (electrostatic field, rare earth–transition metal alloys).
- (7) Competing interactions: spin glasses (dilute alloys, microscopic theories).
- (8) Applications (soft magnetic materials, magnetic bubbles).

It is an excellent book, which is clearly written and which suitably combines different aspects of the glassy state. It is recommended to physicists, in showing how the absence of crystal structure modifies magnetic phenomena, and to material scientists, as it demonstrates the spectrum of new materials produced by methods capable of yielding homogeneous non-crystalline compositions unattainable by means of ordinary crystal chemistry. It is advisable as a library handbook for all physical chemists dealing with different aspects of amorphous materials.

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Thermal Analysis, edited by Živan D. Živkovič, a Collection of Papers issued by the Technical Faculty at Bor, 19210 Bor, Yugoslavia (a branch of the University of Beograd), 1984, No. 7261-101, price US \$40, DM 125.

The book consists of 273 pages, 84 figures and 565 references; unfortunately, it does not contain any indexes. The contents are divided into ten

chapters written by thirteen authors, covering four basic aspects of thermal analysis:

(1) Instrumentation and theoretical aspects (N. Smajič, F. Paulik and J. Paulik).

(2) Thermodynamics (M. Nevřiva, J. Šesták and Ž.D. Živkovič).

(3) Kinetics (J. Zsakó, J.J. Pysiak and V. Dondur).

(4) Applications (P. Bukovec and N. Bukovec, S. Janjič and G. Rasulič).

The book was issued by a group of thermoanalysts from Yugoslavia under the leadership of the editorial staff of the "collection of papers" with the help of colleagues from Czechoslovakia, Hungary, Poland and Romania to affirm the discipline of thermal analysis in Yugoslavia as well as to promote recognition of the Yugoslav school in this field abroad. This book is recommended to all thermoanalysts working in different fields of thermal analysis as a supplement to existing books in this field.

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