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Book reviews

Specialist Periodical Reports, Electronic Structure and Magnetism of Inorganic Compounds, Vol 4; edited by P. Day, The Chemical Society, Burlington House, London, 1976, 277 pages, $ 45.50, £ 16.50.

One of the most important books which appears each year for the inorganic spectroscopist is the Electronic Structure and Magnetism of Inorganic Compounds. This series contains a comprehensive discussion of the year's literature (1973—74 is included in vol 4) in the various areas of spectroscopy and magnetism of inorganic complexes, each written by well respected authorities in their fields. This volume is of particular importance to the electronic spectroscopist since, in addition to the usual, excellent reviews by Peter Day (with E.R. Krausz on Electronic Spectra) and R. Denning (Magnetic and Natural Optical Activity), a new chapter on the Luminescence Properties of Inorganic Compounds by A.J. Thomson has been included. I consider this chapter to be the most organized and coherent review yet to appear on this subject, discussing all the various models and inorganic compounds which should be included in a complete survey of inorganic radiationless processes and emission. Volume 4 does not contain the photoelectron chapter which in the past has been of considerable interest to the organometallic chemist; however, A.K. Gregson's extensive review of magnetic susceptibility studies and their trends in 1973—74 is still included.

A statement concerning the relevance of this volume, as it reflects the fields of spectroscopy, to the organometallic chemist is probably in order. Very few detailed electronic spectroscopic studies on organometallic molecules (other than PES) appear each year in the literature. This is an exciting area with fascinating electronic structure problems and should be of increasing interest to the inorganic spectroscopist as well as the organometallic chemist.

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Catalysis: Heterogeneous and Homogeneous; edited by B. Delmon and G. Jannes. Elsevier, Amsterdam-Oxford-New York, 1975, xxv + 550 pages; Dfl. 160.00; US S 61.50.

There is much contemporary discussion on possible analogies between the mechanisms of catalysis by homogeneous and heterogeneous systems and it would be good to see a structured and considered examination of the facts. But this collection of articles, representing the proceedings of a Symposium

organised jointly by the Centre d'Enseignement et de Recherches des Industries Alimentaires et Chimiques and the Division de Catalyse, Société Chimique de Belgique, can have no claims in this direction.

We can read nearly forty papers, most of which would not have survived normal refereeing procedures and the discussions of each paper are, for the most part, desultory and uninformative. The absurdly high price for a volume having no aesthetic and little scientific appeal will ensure few readers or places on reference shelves.

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