

Mass Spectrometry of Metal Compounds, edited by J. Charalambous, Butterworth and Co., Ltd. London/Boston, 1975, 297 pages, £14.00.

This book opens with four chapters dealing with "Instrumentation and Presentation of Mass Spectra", "Fundamental Aspects of the Mass Spectrometry of Metal Compounds", "Fragmentation of Metal-Containing Ions", and "Energetics of Molecular Ionization and Dissociation". These are followed by chapters dealing with metal-metal bonded compounds (F. Glockling), boron compounds (R.H. Cragg), polynuclear carbonyls (B.F.G. Johnson), transition metal hydrocarbon compounds (J. Müller), coordination compounds (J.B. Westmore), and metal chelates (J.R. Majer). The avowed purpose of the book is to give final year undergraduate students and beginning graduate students an important reference text. The first four chapters outline information pertinent to their titles in a way that should be useful to beginning students without belaboring them with excessive details which they can get from referenced work. The next chapters by Glockling, Cragg, Johnson and Müller are readable, critical introductions to the topics covered which should give students the necessary foundation for further work in the areas. The two final chapters by Westmore and Majer however, are more in the form of reviews of the mass spectrometry of metal chelate compounds. Although they are excellent in themselves, they change the character of the book set by the preceding chapters. Hence the reader must form his own opinion about what may or may not be critical to any work in the area to which he aspires involves chelates. Unfortunately the last two chapters constitute nearly one-half of the narrative part of the book. Thus the value of the book to a neophyte is altered. Although a beginner may well profit by a literature review, in this case, he will need to acquire critical judgement before he has much experience.

The book can be recommended on general grounds however and should become part of library collections covering mass spectroscopy and be added to individual collections for the sake of completeness. The type script is easy to read and the format is attractive. Inclusion of a table of nuclidic masses and abundances of naturally occurring isotopes as an appendix should help make the book useful.

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