

## Book Review

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*An Introduction to Thermogravimetry.* C. J. Keattch and D. Dollimore. Heyden and Son, London—New York—Rheine 1975, 164 pp.

The first edition of this book written by C. J. Keattch alone, appeared in 1969. The present second edition, nearly trebled in volume, has an additional author in the person of D. Dollimore.

The book is divided into 10 chapters dealing with the origins, thermobalances, presentation of data and experimental conditions, the interpretation of data, the operation of thermobalances and associated equipments, applications in inorganic chemistry, organic and polymer chemistry as well as with applications in the field of minerals and applied sciences.

The authors intended to write a text book for chemistry and chemical engineering students and technical workers in industrial and academic applications with no prior knowledge. It must be stated that their aim had successfully been solved by calling into existence a book which is well understandable and extremely didactic. But the book can be recommended to the experienced thermoanalyst too, since it contains not only a rather large reference material and background information but offers also a logical and coherent account on thermogravimetry. In my opinion this volume should be accessible not only in every academic and industrial laboratory but also in every research laboratory too.

F. PAULIK

*IRS Physical Chemistry Series two, volume 10, thermochemistry and thermodynamics.* Edited by: H. A. Skinner.

This Physical Chemistry Series 2 volumes on Thermochemistry and Thermodynamics in the International Review of Science Series is complementary to the first volume originally published in 1972/3. The subject matter includes material not covered by the 1st volume namely chapters on the PVT properties of fluids, the thermodynamics of molten salts, metallurgical thermodynamics, differential scanning calorimetry, matrix-isolation spectroscopy and the measurement of thermodynamic properties at very high pressures. The remaining chapters relate directly to the topics discussed in the first volume. Thus there is a further chapter on biochemical thermodynamics which is a very active area at the present time. One chapter examines in-depth the problems of the critical evaluation of thermodynamic data, in particular thermophysical data well illustrated by reference to the thermal conductivity of aluminium and aluminium oxide together with the normal spectral reflectance of aluminium.

The volume is a most excellent critical survey of the fields outlined above. The thermal analyst will find the first chapter on DSC to be a most valuable addition to the literature side, it represents a lucid and up-to-date review of the subject. After a brief outline of the theory and operation the remaining part of the chapter covers applications. Those applications chosen illustrate the determination of the physical constants and the measurement of the enthalpies of both chemical reactions and phase changes. There is also a short section devoted to the evaluation of kinetic parameters.

J. P. REDFERN