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Book review

Thermal Methods of Analysis, by Wesley Wm. Wendlandt, John Wiley & Sons, New York, 2nd ed., 1974, price $27.50, 499 pp.

At the present time the art of thermal analysis has found its way into many fields of science and engineering. This fact is reflected in the number of books now available on the thermoanalytical book market which, according to the 1971 ICTA report, is well in excess of fifty, which seems rather close to a saturated state. Under such conditions it would be difficult for any other new book on thermal analysis to find a market.

Two of the factors supporting the favorable acceptance of the present book are: the first edition has served for almost ten years as the bible for many thermoanalysts and the outstanding reputation of the author who is responsible for over two-hundred publications and ten monographs mainly in the thermoanalytical field.

From the first edition the titles of the well-arranged first seven chapters are retained, the content of which, however, is extended by more than a hundred pages. This part forms the basis of the book which is devoted to the most popular thermoanalytical techniques: differential thermal analysis and thermogravimetry, including their principles, instrumentation and application. The passages dealing with the description of apparatuses demonstrate the author's extensive experience and merit in design and construction and yield valuable information about the fundamentals of instrumentation on the present thermoanalytical market. The physico-chemical utilization of these methods is also dealt with. In the remaining 150 pages attention is paid to other methods of thermal analysis, evolved gas analysis (Chapter 8), optical thermal measurements (Chapter 9), cryoscopic purity determination (Chapter 10) and miscellaneous techniques (Chapter 11 including thermomechanical analysis, electric and magnetic measurements, emanation thermal analysis etc.). The book is concluded by up-to-date chapters on the applicability of digital and analog computers (15 pages) and thermal analysis nomenclature (11 pages). We agree with the author that much more work has still to be done in nomenclature to prevent further confusion in thermoanalytical terms as is often found in literature and practice.

In conclusion we would like to stress that this book represents a very high standard not only from the scientific point of view but also with regard to the quality of the print and the presentation of 320 figures. The instructive division of this analytically aimed book makes it possible even for the beginner to get easily oriented and for the skilled worker to reach detailed information, either directly from the book or through the extensive literature placed at the end of each chapter, amounting to 1000 citations. All this makes this book highly recommendable and assures that this second edition will continue to serve as a bible for the thermoanalytical community.

Jaroslav Šesták