

BOOK REVIEW

R. Ammon and W. Dirscherl, Ed.

"Vitamine" Vol. III/1—2

in Fermente, Hormone, Vitamine.

Georg Thieme, Stuttgart 1974. 997 pages, about 109 figures (Part 1)

1975. 360 pages, about 66 figures (Part 2)

The book gives a comprehensive view of our present knowledge of vitamins. The First Edition, which appeared under the editorship of Professors Ammon and Dirscherl in 1937, has become a widely applied, most popular handbook, in fact, the best in its field.

After a considerable elapse of time, following the Third Edition of Vols I ("Fermente", 1959) and II ("Hormone", 1960), the section on vitamins has finally appeared in an enlarged edition as a two-volume book (Vol. III, 1—2). In the long run, however, this delay of a decade-and-a-half proved to be very useful for it allowed the inclusion of recent knowledge in the rapidly developing field of biochemical and biological sciences. Comprising the work of more than 20 authors, "Vitamine", Vol. III, Part I summarizes, over approx. 1000 pages, our present knowledge of important biochemical reagents in the following arrangement:

anti-vitamins; the significance of vitamins in therapeutics and nourishment; Vitamin A, Vitamin D (Calciferol), Vitamin E (Tocopherol), Vitamin K, Vitamins F (essential fatty acids), alpha-lipoic acid, ubiquinones, Vitamins B₁ and B₂ (Riboflavin), further Vitamins B, pyridoxine, pantothenic acid and other coenzyme components; Anti-pellagra vitamin (nicotinic acid and nicotinic acid amide), biotin, the group of folic acids, coline, mioinosite, Vitamin C (ascorbic acid) and bioflavonoids ("Vitamin P").

It is immediately evident from the List of Contents that compounds such as lipoic acid and collin of recent significance, have been assigned a separate chapter and treated in detail.

Substances with controversial vitamin properties, e. g., essential fatty acids and bioflavonoids have also been widely discussed and presented in a comprehensive study, giving a practical guide to analytical treatment as well.

The further merit of this enlarged edition, in addition to offering a comprehensive review, is to discuss in detail the specific properties of vitamins and compounds with vitamin-like effects, their interactions and relationships with enzymes and hormones. It is, above all, this biological-biochemical approach that renders this voluminous work so important and invaluable.

The book is well readable, outlines the historical background and gives a unified treatment of biosynthesis and chemical structure and mechanisms. Another great asset of the book is the detailed discussion of therapeutic aspects, helpful for researchers working in either specialized or interdisciplinary fields.

Part 2 dealing with properties of Vitamins B₁₂ and related corrinoids was published in 1975. The special role and significance of the Vitamin-complex B₁₂ has been described by professor Friedrich in a similarly intriguing style, with special stress laid on specific features.

J. HOLLÓ

G. Liptay: Atlas of Thermoanalytical Curves

Vol. III and IV

Akadémiai Kiadó (Budapest) and Heyden and Son Ltd. (London, New York) 1974, 1975

The rapid extension of the thermoanalytical methods required the publication of a series recapitulating the thermal characteristics of different substances. After the first two volumes we are pleased to have the third and fourth ones of the Atlas of Thermoanalytical Curves.

The Atlas gives the thermal decomposition curves of several materials under two different experimental conditions. The thermoanalytical characteristics of the substances are known to be greatly influenced by the amount of the sample and the heating rate.

The thermoanalytical curves for small samples and low heating rate are printed red, while those for great samples (usually 5 to 10 times the previous ones) and high heating rate (3 to 5 times of the previous) are printed black. This pair of diagrams gives important information on the thermal characteristics of the sample as well as on how much the thermoanalytical curves vary upon different experimental parameters.

The Atlas of Thermoanalytical Curves has a high number of foreign contributors. The latter volumes contain the results of Bohemian, Roumanian and Polish researchers, in addition to Hungarian ones. A further development of the series is the inclusion of additional thermoanalytical determinations for several materials. Thus, in some cases, not only the TG-, DTG- and DTA-curves, but also the DSC curves and the results of experiments under vacuum, are given, yielding further important data on the thermal characteristics of substances.

Similar to the previous volumes, the molecular weight, the origin of the sample and the experimental parameters are indicated. The Note contains valuable short information on the interpretation of thermal processes, and hints to phenomena concomitant to heating (corrosion, etc.)

In the References some literature data are found, likely to contain detailed information about the characteristics and decomposition of the sample.

The examinations have been made by the contributors exclusively for this purpose, (with unified parameters), justifying the indication of their names and institutions complementing the data.

Co-publishers to the series are Heyden and Son Ltd (London) showing a fair example of co-operation between the Akadémiai Kiadó and the English partner.

F. SZABADVÁRY

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