

Book review

Natural Products Chemistry: Volume 2, edited by KOJI NAKANISHI, TOSHIO GOTO, SHÔ ITÔ, SHINSAKU NATORI, AND SHIGEO NAZOE, Kodansha, Tokyo, and Academic Press, New York, London, 1975, x+586 pages, \$34.00.

With the publication of this second volume, Professor Nakanishi and his collaborators have greatly extended the scope of their unusual work, which reviews the determination of the structure and/or the chemical synthesis, and occasionally the biosynthesis, of an extensive list of naturally occurring, organic substances of low molecular weight. The unique feature of the work is its highly condensed, outline format, with its extensive reliance on formula schemes. Included in Volume 2 is a chapter on "Sugars (carbohydrates)", along with chapters on fatty acid derivatives, carboaromatic compounds, alkaloids, nonalkaloidal nitrogen compounds, and the photochemistry of natural products.

The brief chapter on carbohydrates does not purport to be, and is not, a comprehensive account of the naturally occurring sugars. What is actually covered is a set of about twenty natural molecules made up wholly or partly of sugars. Three of the examples, namely D-glucose, sucrose, and L-ascorbic acid, were chosen for their historical and general importance. For the rest, "emphasis is given to sugar derivatives having unusual structures". The result, not surprisingly, is that over half of the examples used are antibiotics. One glycolipid, one nucleotide coenzyme, one saponin, and one unusual D-glucoside round out the list. The brevity of the treatment does injustice to some of the more complex structure-determinations, but the information presented is generally well chosen.

Because of its limited coverage of sugar derivatives, this book will not be a useful reference for most carbohydrate chemists. However, the two volumes will be valuable to students, young and old, who wish to survey the richness of Nature's chemistry. The inclusion of some carbohydrates in a description of that chemistry is certainly in order.

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