# Book Reviews

***Progress in the Chemistry of Organic Natural Products,*** Vol. V. L. Zechmeister, Ed. Vienna, Austria: Springer-Verlag; New York: Walter J. Johnson, 1948. 417 pp. $11.20 unbound; $12.00 bound.

Volume V of *Progress in the Chemistry of Organic Natural Products* gives the impression that it is written in German, but this is true only of the first chapter; the rest are in English. Since it was published in Vienna, the excellence of the typesetting and proofreading in what is a foreign tongue to the men and women of Springer-Verlag is remarkable.

This is essentially a series of review articles on various topics which have in common only that they deal with the organic chemistry of naturally occurring compounds of somewhat complicated structure. Carotinoids, azulene derivatives, glycerides, poly- and oligosaccharides, lignins, toad venoms, and fish proteins are discussed. The reader is made familiar with the more important of the recent work in each field. A chapter on the chemistry of genetics and one on determination of structure by infrared spectroscopy complete the volume.

The list of authors reads like a *Who's Who* in these fields and suggests what a careful reading confirms, that the topics are treated with finesse and judgment. Only relatively trivial adverse criticisms can justly be made. On page 14, the semipolar structure of a 3-atom epoxy structure seems unacceptable by modern concepts. The term "ultraviolet light" is employed, whereas "light" is properly confined to visible radiation. On page 186 degree of polymerization is improperly defined. The formula for 8-methoxydihydrobenzopyrone on page 209 contains a hydrogen atom where there should be a double bond. On page 213 the elm tree is called *Populus nigra,* which is a species of poplar, including the familiar Lombardy poplar as subspecies. "Euryhaline" is defined on page 286 after being introduced on page 267. That horror of organic chemists, the quinquevalent carbon atom, appears on page 360.

This volume is indispensable to workers in the various fields covered, but this reviewer wishes also to recommend it to those in other fields of organic chemistry who have a curiosity about the world around them. Have you wondered why a lobster turns from green to red when it is cooked? Just how voracious sandworms are, or how the protein of fish differs from other protein? How the fatty acids are distributed on the glycerol residues in a fat? Whether there are 23 or 24 chromosomes in the human male spermatozoon? If so, you will enjoy reading and studying this book.

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***The Effects of Atomic Weapons.*** Prepared for and in cooperation with the U. S. Department of Defense and the U. S. Atomic Energy Commission under the direction of the Los Alamos Scientific Laboratory. Samuel Glasstone, Ed. Washington, D. C.: U. S. Government Printing Office, 1950. 456 pp. $1.25. (Clothbound editions available from commercial publishers.)

Since the announcement of the atomic explosion over Hiroshima, the atomic bomb has been a favorite topic for authors. Some writing has had relatively little thought or information behind it, and some was sheer nonsense. The present volume should remove the limitations imposed by lack of accurate technical information on the effects of atomic explosions upon personnel and materiel.

In reviewing this book, one is inevitably drawn to comparisons with the Smyth Report, to which it is to some extent a sequel. Here is none of the historical background nor any discussion of the long-range effects of the weapon upon a civilization unprepared to deal with it. The over-all phenomenology associated with atomic explosions in the air, at the ground surface, under the ground, and under water are discussed in detail. The results of measurements made at the various field tests are supplemented by theoretical calculations. Two chapters are devoted to medical effects and methods of personnel protection. As with the Smyth Report, one is amazed and gratified at the amount of information it has been possible to release from the cloak of security.

Much of the information contained in this volume is badly needed for intelligent planning of defenses against atomic weapons, although a rather considerable technical background will be required to make full use of the material. There is some uncertainty as to the audience for which this book was planned. At one point the text explains that 1 kilogram is equivalent to 1,000 grams, and at another the integrals of the Planck radiation theory are used freely. In general, the text accompanies the mathematical treatments with physical explanations, so that a serious but nontechnical reader can obtain at least a qualitative idea of the phenomena involved.

The authenticity of the work is unquestioned, for the list of authors is practically a *Who's Who* of atomic bomb phenomenology. As a group they have been responsible for understanding and evaluating the effects of atomic explosions upon personnel and materiel. They have made an important contribution in collecting and interpreting their results and making them available to the general public.

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