resents a most informative and up-to-date summary of the dynamics of growth processes. Each of the articles is followed by a carefully selected list of references, and numerous diagrams and photographs illustrate the text. In my opinion it is regrettable, however, that the formal presentations are not followed by discussions, since the critical analysis of each topic by the other members of this highly competent panel would have been particularly informative. In any event, there can be no doubt that the proceedings of this symposium, like those of its predecessors in *Growth,* can be highly recommended to all those interested in growth phenomena.

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Progress in the Chemistry of Fats and Other Lipids. vol. 2. R. T. Holman, W. O. Lundberg, and T. Malkin, Eds. Academic Press, New York; Pergamon Press, London, 1954. 347 pp. Illus. + plates. $9.80.

The articles contained in this volume, like those in volume I, were originally intended for a new edition in English of the Hefter-Schoenfeld *Chemie und Technologie der Fette und Fettprodukte.* Each chapter is an authoritative survey of a specific area of research on lipids.

Physical aspects are discussed in "The polymorphism of glycerides," by T. Malkin, and "The surface properties of fatty acids and allied substances," by D. G. Dervichian. The first, a continuation of a chapter in volume I, discusses present views on glyceride polymorphism based on thermal and x-ray studies. The second surveys the studies on surface properties of fatty acids, salts, and simple esters of fatty acids, glycerides, and phosphatides. "Autoxidation of fats and related substances," by R. T. Holman, is concerned with the chemical aspects of this phenomenon. Possible mechanisms of autoxidation are discussed in detail.

Biochemical methods are represented by the chapters "Infrared absorption spectroscopy in fats and oils," by D. H. Wheeler, and "Countercurrent fractionation of lipids," by H. J. Dutton. The former is concerned with the utilization of infrared absorption in studying the structures of lipids. The latter is a discussion of the fundamentals of countercurrent distribution, a description of the apparatus used in this method, and a survey of the application of this technique to the fractionation of lipids.

In "Urea inclusion compounds of fatty acids," by H. Schlenk, the physical and chemical properties of these compounds are described. The use of these adducts in fractionating lipids and determining lipid structures is also discussed.

A very comprehensive survey is made by H. J. Deuel in "Nutritional significance of the fats." This deals primarily with the role of fats in physiological functions and with the factors affecting the nutritional value of fats.

This volume is generally well written and thoroughly documented. It would be an excellent addition to the library of anyone actively engaged or generally interested in lipid research.

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Organic Chemistry. Reynold C. Fuson and H. R. Snyder. Wiley, New York, and Chapman & Hall, London, 1954, ed. 2. viii + 544 pp. Illus. $6.50.

This new edition of a well-known college textbook in introductory organic chemistry is very similar to the first edition in size, in the arrangement and titles of its chapters, and in the presentation of a unified treatment of aliphatic and aromatic compounds. The plan of presenting in the early chapters a bird's-eye view of the general field of organic chemistry, followed by a more mature and well-rounded treatment in the subsequent chapters, is retained; but the new edition is not formally divided into part I and part II as was the first edition.

By eliminating sections on methods of preparation and by using cross references to reactions previously studied, rather than duplicating the reactions, space has been provided in the new edition for new material. In making these changes, the authors have given special emphasis to the inclusion of theoretical material and to the more extensive treatment of several topics, such as the reactions of halogen compounds and polymerization.

As in the first edition, much of the second half of this book is devoted to the reactions of certain functional groups. The reactions are grouped and treated according to type rather than discussed on the basis of common starting materials, end-products, or utilization in industry and allied fields of science. Whereas this feature of the earlier edition has been found attractive by teachers of organic chemistry, particularly those whose classes are made up mainly of students preparing for a professional career in organic chemistry, I feel that many of the students who take a full-year course in organic chemistry in preparation for medicine or engineering will find several of the chapters in this portion of the book too detailed and exhaustive in reaction coverage. Not enough attention is given to the development of the ideas and concepts that have become the basis for reasoning in structural and functional organic chemistry. Modern mechanistic concepts are used in explaining many of the reactions, but little or no basis for accepting such concepts is developed. For example, no clear exposition of the concept of resonance is offered; and the role of energy, varying bond strengths, and dipole moments in organic reactions is completely ignored. In my experience, most students, including prechemists, find that the development and use of such ideas and concepts in introductory organic chemistry are much more stimulating than the task of learning or cataloging all the many reactions of a particular functional group or type of compound.