

---

# Publications

---

## Book reviews

**Advances in Nutritional Research**, Vol. 3, edited by H.H. Draper (Plenum Press, 227 W. 17th St., New York, NY 10011, 1980, 362 pp., \$32.50).

The third volume of this new series largely continues to meet the standards set in Volumes 1 and 2. Included are chapters on: lipid metabolism and ischemic heart disease in Greenland eskimos; trace element deficiencies in man; current concepts of intravenous hyperalimentation; dietary influences on prostaglandin synthesis; stable isotopes for bioavailability assessment of dietary minerals in humans; evidence of the essentiality of arsenic, nickel and vanadium and their possible nutritional significance; protein in the nutrition of the preterm infant; metabolism of long-chain monoenoic fatty acids in heart muscle and their cardiopathogenic implications; the biology of taurine in nutrition and development; and trichothecene mycotoxins—mycology, chemistry and toxicology. At least 4 or 5 of these chapters should be of interest to the lipid chemist.

Some reservations should be noted regarding 2 of the chapters. If the reader is willing to believe that there are not or never have been problems with lipids in parenteral nutrition as would seem to be indicated by the coverage of this topic provided by Deitel and MacDonald — so be it. Failure to even mention the previous FDA action in this area is really putting the past behind oneself. Sauer and Kramer are particularly well qualified to write on the erucic acid/rapeseed oil dilemma, having published extensively in this area. It should be realized, however, that they have historically vigorously and ably represented one side of an extremely controversial topic right from within a Canadian government laboratory, and that the Canadian government has adopted a position, the rationale of which is not acceptable to all scientists. The general tenor of the chapter may be judged from the title, and the observation that, in the first 5-3/4 pages, the words "erucic acid" occur only once, whereas marine or fish oils are referred to an even dozen times. The work with eskimos represents 3 expeditions to Greenland by the authors, Bang and Dyeberg, between 1970 and 1978. These investigators seem particularly impressed with the eicosapentaenoic acid levels induced by ingestion of marine lipids. The increase in 20:5 and corresponding decrease in 20:4 is considered to shift the balance between pro- and antiaggregatory prostaglandins toward anti-aggregation with a reduction in thrombus formation and the incidence of ischemic heart disease. This relationship is also discussed by Galli in the chapter on prostaglandins. The trichothecene mycotoxins are known to occur in corn, barley, and rye in the U.S. but appear to be a greater problem in Russia and Japan. Much of the coverage is devoted to chemistry, mycology and assay methods. This chapter seems particularly timely in view of the recent interest in "yellow rain" in southeast Asia. The availability and utility

of stable isotopes in various types of analyses is receiving considerable attention in several areas, including nutrition.

This is an excellent series and this particular volume has a high percentage of material of interest to the lipid chemists or biochemist.

Lloyd A. Witting  
Supelco, Inc.  
Bellefonte, PA 16823

**Toxic Constituents of Plant Foodstuffs**, 2nd Edn., edited by I.E. Leiner (Academic Press, Inc., 111 5th Ave., New York, NY, 1980, 502 pp., \$39.50).

An updated second edition of this worthwhile book which first appeared over 10 years ago is a welcome addition to a food science library. Information concerning food toxicology and the physiological effects of food components and toxins has greatly increased in the last decade. There are chapters dealing with protease inhibitors, hemagglutinins (lectins), glucosinolates, cyanogens, saponins, gossypol, lathrogens, favism, allergens, naturally occurring carcinogens, toxic factors induced by food processing, and a final chapter concerning miscellaneous toxic factors. This last chapter discusses the toxic effects of Maillard reaction products and lipids. Each chapter is preceded by a contents listing and the index is comprehensive. This book is a valuable addition to the library of those interested and working in the area of formulating plant foodstuffs.

**The Vocabulary of Organic Chemistry**, by M. Orchin, F. Kaplan, R.S. Macomber, R.M. Wilson and H. Zimmer (John Wiley & Sons, New York, NY, 1980, 609 pp., \$35).

The intent of this volume is to present the basic concepts and vocabulary currently in use in organic chemistry. Many illustrations and examples are used to explain the terms defined. The advances made in the field of organic chemistry within the last decade have been tremendous. It is difficult for anyone other than a practicing organic chemist to keep up-to-date with the new reactions and concepts that are continuously appearing. I'm sure that the diligent practicing organic chemist also finds this difficult. It is even more so for the many scientists who, although they are not organic chemists, use the science extensively. For those persons, as well, the availability of a book such as this volume is essential and fills a void. Such a book cannot be intensively reviewed in the present circumstances; however, perusal indicated that the explanations are clear and concise. The liberal use of structural formulae and reactions is essential. The name reactions are well illustrated and literature citations are provided for further information. The index appears comprehensive but, in a book of this type, the organization and ease of finding material is of major value. I would recommend that this volume be on the personal shelves of scientists requiring ready access to current