ter have done an excellent job of reviewing the use of the various techniques available for making such determinations. In my opinion, this book is also one of the best compilations of methods for determining the structure of organic compounds in general that is presently available. Chapters 2 through 5 (on ultraviolet, infrared, nuclear magnetic resonance, and mass spectroscopy, respectively) form a compact introduction to the applications of these tools in organic chemistry, which could be read with profit by every student in this field. Another example of the general utility of this volume is the excellent treatment (in Chapter 6) of the interplay of inductive, resonance, and steric factors in determining the acidity and basicity of organic compounds.

The various topics treated in the chapters devoted to chemical methods will be of general usefulness to the organic chemists, even though the specific examples of their use are usually natural products. The chemical methods treated are detection and protection of simple functional groups, reduction and hydrogenation, dehydrogenation, zinc dust distillation, alkali fusion, carbon-oxygen and carbon-nitrogen bond fission, degradation of polypeptides and proteins, degradation of side chains, stereochemistry, and molecular rearrangements.

This volume certainly belongs in every scientific library, and many practicing chemists will want to own their own copy.

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Undergraduate Textbook

University Mathematics. Robert C. James. Wadsworth, Belmont, Calif., 1963. xiv + 924 pp. Illus.

Despite a reasonable first conjecture that the reader may form on viewing the title, type-size, and bulk of this book, the volume is designed as a textbook for use in the first 2 years of undergraduate instruction in mathematics. It opens with a substantial chapter that introduces the basic ideas and techniques of the calculus and serves as a preview of the course without bothering overmuch about finer points; many science departments request that their students have these tools early in their first term, a request that this chapter meets. Following this, we start from fundamentals: sets, relations, functions, logic, probability, the finite cardinals, an outline of the development of the number system, and a discussion of the real number system.

The least upper bound axiom leads naturally to limits and continuity (chapter 5), and from this point on the subject matter could be described, fairly and briefly, as an unusually careful, complete, and detailed "calculus and analytic geometry—with vectors," except for chapter 12, which is a substantial introduction to linear spaces, transformations, and their associated matrices.

It seems clear that the book was written with a rather above average student in mind, that an average student would find it a rather stiff dose (although his instructor might profitably consult it), but that it deserves consideration if your primary concern is with students of fairly high ability.

The only lapse noted in the author's general carefulness is in section 7-4 where, without comment, we find ourselves considering partitions of the interval $[a, b]$ with $a > b$.

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Malnutrition

Mild-Moderate Forms of Protein-Calorie Malnutrition. Symposia of the Swedish Nutrition Foundation held at Båstad in August 1962. Gunnar Blix, Ed. Almquist and Wiksell, Stockholm, 1963. 159 pp. Illus. Kr. 35.

The Swedish Nutrition Foundation was created in 1961 to bring together scientific, industrial, and government organizations interested in nutrition. Among its activities is the holding of an annual symposium on a topical subject. The first meeting was held in Båstad, 29 to 31 August 1962, and the proceedings of that symposium have been published under the title *Mild-Moderate Forms of Protein-Calorie Malnutrition.*

It was judged appropriate to initiate the series with a study of the most widespread nutritional syndrome in the world today. The organizers probably wished to also emphasize that, in addition to the full-blown kwashiorkor and marasmus, there are a number of mild and intermediary conditions which, like the submerged part of an iceberg, comprise the great mass of this important threat to the welfare of the children of the world.

This slim, attractive book, well edited by Gunnar Blix, contains the following chapters: "Nutrition research and food production," "Clinical signs of mild-moderate protein-calorie malnutrition of early childhood," "Biochemical signs of mild-moderate forms of protein-calorie malnutrition," "Metabolic disturbances in protein-calorie malnutrition," "Production and control of oedema," "The Swedish project concerning a children's nutrition unit in Ethiopia," "The evaluation of the nutritive value of proteins," "Minimum requirements of calories and protein in different age groups," "Adaptation to suboptimal nutrition with respect to protein and calories," "The vicious-circle mechanism in production of protein-calorie malnutrition," "The influence of protein-calorie malnutrition on psychological test behavior," "Methods for the determination of physical capability," "The assessment of protein-calorie malnutrition of early childhood as a community problem," "The utilization of protein-rich foods in the prevention of protein-calorie deficiency diseases."

Particularly outstanding are the chapters by Jelliffe and Welbourne, Waterlow, Dean, Bigwood, and Cravioto and Robles. Jellife greatly clarifies the marasmus-kwashiorkor relationship and gives a workable classification of signs and symptoms. Waterlow gives a neat summary of metabolic and, more specifically, body composition changes in protein-calorie malnutrition; Dean, one of the edema picture in this syndrome. Bigwood, one of the great scholars in the field of nutrition, whose scientific life-span has embraced almost the entire period during which the field of modern nutrition was developed, brings his long experience to bear on the evaluation of the nutritive value of protein, and he presents a clear and cogent criticism of some of the short cuts to the appraisal of diets, which have recently appeared in the literature. Cravioto and Robles provide an interesting discussion of aspects of the often neglected psychological consequences of protein-calorie malnutrition. The excellent chapter by the Jellifes, on practical tests to appraise malnutrition in young