

of information; involvement of aminoacids in protein biosynthesis; and ribosomal synthesis of proteins, two main parts follow, respectively dealing with structure and function of the ribosome.

In Part 1, physical and chemical properties of the ribosomes, ribosomal RNA and proteins, and structural transformations of ribosomes are dealt with. In Part 2, the following subjects are reviewed: components of the protein-synthetizing system, their association with ribosomes, and the stages of translation. An appendix is added on the mechanism of action of certain antibiotics, such as puromycin, chloromycin, tetracyclines, streptomycin, etc. An effort was made, throughout the book, to concentrate on the structure and function of the individual ribosomal unit: hence the use of the singular in the title.

Clear and well illustrated, this book will be valuable to geneticists and biochemists.

Microbial Ribonucleases

By F. Egami and K. Nakamura (Tokyo). Volume 6 in the series, "Molecular Biology, Biochemistry, and Biosynthesis", edited by A. Kleinzeller (Philadelphia), G. F. Springer (Evanston), and H. G. Wittmann (Berlin). Springer Verlag, Berlin-Heidelberg-New York 1969. Bound volume: 17×25 cm; IX+90 pages; 25 tables, 7 charts, and 5 figures. References and subject index. Price: DM 28 (US \$ 7.00).

The chemical and biological aspects of RNA-degrading enzymes in microorganisms are reviewed in this monograph, under the following main headings: classification of enzymes attacking RNA, distribution of RNases in microorganisms, chemical studies on microbial RNases (*Aspergillus oryzae*, *Streptomyces* and *Actinomyces*, *Ustilago*, *Neurospora crassa*, *Azotobacter agilis*, *Escherichia coli*, *Asper-*

gillus saitoi, *Bacillus subtilis*, etc.), and physiological role of RNA-degrading enzymes in microorganisms (both of intracellular and extracellular enzymes).

Optical Rotatory Dispersion of Proteins and Other Macromolecules

By B. Jirgensons (Houston). Volume 5 in the series, "Molecular Biology, Biochemistry, and Biophysics", edited by A. Kleinzeller (Philadelphia), G. F. Springer (Evanston), and H. G. Wittmann (Berlin). Springer Verlag, Berlin-Heidelberg-New York 1969. Bound volume: 17×25 cm; XI+166 pages; 18 tables and 65 illustrations. References and subject index. Price: DM 46 (US \$ 12.70).

Among the numerous applications of physical methods to the study of the structure of biological macromolecules, a great role has been successfully played by optical rotatory dispersion in solving various structural problems, especially of proteins.

This monograph introduces the reader to the use and application of spectrophotometric methods in molecular biology. The following main subjects are dealt with: structure of proteins, optical activity, and rotatory dispersion (including terms and definitions, theoretical considerations, the Drude and Moffit equations, Cotton effects, etc.); polarimeters and spectrophotometers, and the measurement of optical activity and optical rotatory dispersion; optical rotation of aminoacids, peptides, and proteins, and the optical rotatory dispersion of polyaminoacids and proteins; Cotton effects of synthetic polyaminoacids, and with respect to conformation of proteins (helical and nonhelical); optical rotatory dispersion of structural proteins, of nucleoproteins and histones, and of glyco- and lipoproteins.

The book is completed by a large and updated list of references and a detailed subject index.