
REVIEWS AND NOTICES OF BOOKS

Introduction to Modern Algebraic Concepts.
By Larsen. (Addison-Wesley Publishing Company, Inc., West End House, 11, Hills Place, London, W. 1, England), 1969. Pp. 143. Price \$ 46.00.

This book is intended for a one-semester course. There is sufficient material for an introductory course in modern algebra or a course in the development of the real number system from Peano's Postulates. The book is especially readable for beginners. Furthermore, the level of the material makes the book suitable for a beginning course for either mathematics majors or prospective teachers.

The book commences with an exposition of the fundamental concepts necessary for understanding the remainder of the material in the volume: sets, mappings, equivalence relations, and binary operations. A short section on symbolic logic is also included. The following chapters are concerned respectively with Groups; Rings; The Integers; Integral Domains and Fields; Polynomials; and The Real Number System. C. V. R.

Annual Review of Physiology (Vol. 31). Edited by Victor E. Hall. (Annual Reviews, Inc., 4139, El Camino Way, Palo Alto, California 94306, U.S.A.), 1969. Pp. ix + 787. Price \$ 8.50 in U.S.A. and \$ 9.00 elsewhere.

The following are the contents of the volume: A Half Century in Science and Society, by Maurice B. Visscher; Growth and Differentiation, with special emphasis on the central nervous systems, by Sten Skoglund; Comparative Aspects of Muscle, by Graham Hoyle; Exercise, Including Weightlessness, by Lars-Goran Ekelund; Kidney, Water, and Electrolytes, by E. E. Windhager; Respiration, by Norman C. Staub; Digestion: Motor Function, by E. E. Daniel; Liver: Functional Interactions within the Intact Animal, by William C. Shoemaker and David H. Elwyn; Blood Clotting Mechanisms: Three Basic Reactions, by Walter H. Seegers; Overall Circulatory Regulation, by Kiichi Sagawa; Hemodynamics, by Paul C. Johnson; The Endocrine Function of the Pancreas, by Lawrence A. Frohman; Neuroendocrine Aspects of Mammalian Reproduction, by John W. Everett; Somatic

Sensation, by Ian Darian-Smith; Motor Mechanisms of the CNS: Cerebrocerebellar Interrelations, by E. V. Evarts and W. T. Thach; Neurophysiology of Vision, by Otto Creutzfeldt and Bert Sakmann; Comparative Physiology of Hearing, by Alan D. Grinnell; Biological Membranes: The Physical Basis of Ion and Non-electrolyte Selectivity, by Jared M. Diamond and Ernest M. Wright; Cardiac Muscle: Activation and Contraction, by Edmund H. Sonnenblick and Allan C. Stam, Jr.; and Chronobiology, by Franz Halberg.

C. V. R.

Publications of the Geological Society of America, Inc., P.O. Box 1719, Boulder, Colorado 80302:

1. Coastal Dunes of California. By W. S. Cooper. Pp. 131. Price \$ 8.50 (1967).
2. Saline Deposits. By R. B. Mattox. Pp. 701. Price \$ 19 (1968).
3. Abstracts for 1966. Pp. 485. Price \$ 7.50 (1968).

A project on the geomorphic history of the coastal sand-dunes to cover the entire Pacific coast of the United States was undertaken by the author William S. Cooper about two decades ago. The first part of this study was published in 1958 as Memoir 72 of the GSA. It covered the coastal areas of Washington and Oregon. The present work, which forms Memoir 104 of the GSA, completes the investigation. It deals with the coastal dunes of California; five localities in northern Baja California are also included.

Vegetation is a factor in dune development wherever climate permits plant growth. In the present project study of plant life has been carried on parallel to that of the geomorphic features. The memoir contains 4 maps and 11 plates.

Saline Deposits, which forms Special Paper No. 88 of the GSA, is a Symposium based on papers from the International Conference on Saline Deposits, Houston, Texas, held in November 1962. The Conference included field studies of three areas underlain by extensive salt deposits. These included the Paradox Basin of Colorado and Utah, the Permian Basin field area of Texas and New Mexico, and the

Gulf Coast salt dune area. These studies form Part I of the monograph. Part II on Stratigraphy and Structural Geology contains 17 papers and abstracts of additional papers. Part III on Geochemistry contains 4 papers and additional abstracts. Part IV on Physical Properties contains 5 papers. Discussion of papers in the various sections is included in Part V under Work Session Reports.

Abstracts for 1966, which is the Special Paper No. 101 of the GSA, contains the abstracts of papers submitted for six meetings in 1966 with which the Society was associated, namely, San Francisco, November 14-16; Philadelphia, February 10-12; Reno, Nevada, April 6-9; Athens, Georgia, April 13-16; Las Vegas, Nevada, May 11-14; Washington D.C., December 26-31. A. S. G.

Tables of Spectral Lines of Neutral and Ionized Atoms. By A. R. Striganov and N. S. Sventitskii. Translated from Russian. (Plenum Publishing Corporation, 227, West 17th Street, New York, N.Y. 10011, U.S.A.). Pp. xi + 899. Price \$40.00.

Optical atomic spectroscopy finds ever-widening application in various fields of Physics and Technology. Spectroscopic methods have acquired great importance for the determination of the most important parameters of plasma in discharge tubes, in plasma apparatus, and in ion sources. The development of quantum generators is closely linked with the utilization of the results of optical spectroscopy. Hence, it has become necessary for investigators in these disciplines to have easy access to data on the spectra of atoms and their ions. The publication under review supplies this need.

The volume gives a complete coverage of the emission spectra of 22 of the elements with which plasma physicists have mostly to deal. These include all gaseous elements Hydrogen (including deuterium and tritium), Helium, Neon, Argon, Krypton and Xenon, Nitrogen, Oxygen, Chlorine and Fluorine, the alkali metals Lithium, Sodium, Potassium and Caesium, and Carbon, Magnesium, Aluminium, Silicon, Calcium, Titanium, Iron and Copper.

There are over 30,000 lines on the IR, visible, near-UV, and far-UV regions of the spectra. For each element in addition to the spectra of the neutral atom, the spectra of several of its successive stages of ions are also given. Against each spectral line the wavelength, intensity and classification are given. This

is an indispensable reference work for spectroscopists and plasma physicists. A. S. G.

Fundamental Thermodynamics. By G. Weinreich. (Addison-Wesley Publishing Company). Pp. 231.

The book is designed for a first-year graduate course on classical thermodynamics. The presentation is traditional, and at the end of each chapter there are a number of exercises and problems. A. S. G.

Experiments in Microbial Genetics. Edited by R. C. Clowes and W. Hayes. (Blackwell Scientific Publications, 5, Alfred Street, Oxford, OX1 4HB, England), 1968. Pp. 244. Price 42 sh.

This is an excellent laboratory manual for teaching microbial genetics to a class of students. The experiments are based on annual summer school courses presented by the members of the staff of the Medical Research Council's Microbial Genetics Research Unit at Hammer-smith Hospital, London, over the years 1960-64. The manual contains 37 key experiments on the subject. Each experiment is described under the following heads: Intention, Background, Requirements, Conclusions and References. Appendices give details of special media and techniques, the geneology and availability of genetically marked microbial strains, including fungi, bacteria and bacteriophages.

The experiments being illustrative of most of the important genetical principles, this laboratory manual is indispensable for teachers and students of molecular biology. A. S. G.

Books Received

IBP Hand Book No. 7—A Practical Guide to the Study of the Productivity of Large Herbivores. By F. B. Golley and H. K. Buechner. (Blackwell Scientific Publishers, 5, Alfred Street, Oxford), 1968. Pp. vii + 308. Price 40 sh.

The Chemical Bond. By Linus Pauling. (Oxford University Press, Mount Road, Madras-2), 1967. Pp. xi + 267. Price 22 sh. 6 d. or Rs. 20.25.

Technical Communication No. 39 of the Commonwealth Bureau of Helminthology—Plant Nematology in Africa South of the Sahara. By P. R. Thomas and C. E. Taylor. (Commonwealth Agricultural Bureaux, Farnham Royal, Buck, England), 1968. Pp. 83. Price 60 sh.