

SCIENCE

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NEW ACADEMIC PRESS BOOKS

BIRKHOFF, G., and ZARANTONELLO, E. H.
Jets, Wakes, and Cavities

March 1957, 353 pp., illus., \$10.00

Coordinating vital ideas into a whole and shedding light on numerous problems of hydraulics and aeronautics, this volume reports systematically the most important findings of nearly 100 years of ingenious research in the fascinating and complex field of jets, wakes, and cavities.

BOOTH, A. D., and
BOOTH, KATHLEEN, H. V.
Numerical Methods

Second Edition

Summer 1957, 195 pp., illus., \$6.50

This new edition is written for those who wish to acquire the art of programming and preparing problems for an automatic digital calculator, for which a thorough knowledge of the underlying mathematical principles is essential, but where the actual details of calculation are carried out automatically.

BRACHET, J.
Biochemical Cytology

July 1957, about 480 pp., illus., \$8.80

Addressed to all who, familiar with the fundamentals of descriptive cytology, biochemistry, embryology, and genetics, seek a systematic and unified presentation of the development of scientific knowledge in these fields.

BRAY, H. G., and WHITE, K.
**Kinetics and Thermodynamics
in Biochemistry**

May 1957, 343 pp., illus., \$7.50

In this book the theory underlying aspects of kinetics and thermodynamics is developed systematically and illustrated with examples of their application to biochemical and biological problems.

BROWN, MARGARET E. (ed.)
The Physiology of Fishes

Volume 1. METABOLISM

May 1957, 447 pp., illus., \$12.00

Volume 2. BEHAVIOR

July 1957, about 535 pp., illus.,
approx. \$12.50

*Ten per cent price reduction on orders
for complete set*

Each chapter of this two-volume work correlates material scattered over many publications, reviews existing knowledge and theories, and indicates those directions in which future research may lead to important results.

COLLINS, R. B. (ed.)
High-Speed Photography

March 1957, 417 pp., illus., \$13.00

Containing the proceedings of the 3rd International Congress on High-Speed Photography held in London, 1956, this volume describes techniques and applications not otherwise available in the published literature.

Set now complete

COLOWICK, S. P., and
KAPLAN, N. O. (eds.)

Methods in Enzymology

Volume IV: SPECIAL TECHNIQUES

Summer 1957, about 930 pp., illus.,
approx. \$22.00

This four-volume work presents, for the first time in the English language, a comprehensive collection of the methods used in the study of enzymes.

COOK, A. H. (ed.)
The Chemistry and Biology

of Yeasts

Summer 1957, about 650 pp., illus.

Academic mycologists, microbiological chemists, biochemists, and industrial researchers will find that this comprehensive treatment with its thorough literature coverage provides a major work of reference as well as a detailed reflection of past and particularly of recent research in the many diverse fields associated with yeasts of widely different characteristics.

CREMER, H. W. (ed.)

Chemical Engineering Practice

Complete in 12 volumes plus index volume

Volume 3. SOLID SYSTEMS

March 1957, 552 pp., illus., \$17.50
(non-subscription price)

Subscription price, \$13.30 per volume,
applicable on orders for complete set.

DESTY, D. H. (ed.)

Vapour Phase Chromatography

March 1957, 436 pp., illus., \$12.00

The thirty-four papers contained in this volume were presented at the 1956 London Symposium on Vapour Phase Chromatography, organized by the Hydrocarbon Research Group of the Institute of Petroleum.

FILCHNER, W., PRZYBYLLOK, E., and
HAGEN, T.

**Route-Mapping and Position-
Locating in Unexplored Regions**

April 1957, 288 pp., illus., \$9.00

This book discusses the available methods by which the traveller can make the necessary surveys for so-called route maps during his journey.

GRÖNWALL, A.

**Dextran and Its Use in
Colloidal Infusion Solutions**

April 1957, 156 pp., illus., \$4.00

This monograph traces the development of the use of dextran as the colloid osmotic active component in colloidal infusion solutions and plasma expanders and summarizes the literature on its medical use during the first decade of its practical application.

HELLER, H. S. (ed.)

The Neurohypophysis

March 1957, 275 pp., illus., \$9.50

This volume contains the proceedings of the Eighth Symposium of the Colston Research Society, held at the University of Bristol.

HOAGLAND, H. (ed.)

**Hormones, Brain Function,
and Behavior**

March 1957, 257 pp., illus., \$7.00

The papers and discussions contained in this volume represent the proceedings of a Conference on Neuroendocrinology held at Columbia University's Arden House, Harriman, New York, 1956.

KAMEN, M. D.

**Isotopic Tracers in Biology
AN INTRODUCTION TO TRACER
METHODOLOGY**

Third Edition, revised, enlarged,
and reset

June 1957, 474 pp., illus., \$9.50

Written mainly from a biochemical standpoint, this new edition will serve as a valuable introduction to the important field of isotopic tracers and methodology for all biologists, whether biochemists, physiologists, or clinicians.

KAUZMANN, W.

**Quantum Chemistry
AN INTRODUCTION**

January 1957, 744 pp., illus., \$12.00

Explains the principles of quantum mechanics and describes the major achievements derived from their applications to chemistry. Atomic and molecular systems are treated in detail, and special emphasis is given to various interactions between matter and light, such as absorption, emission, scattering, reflection, and optical rotation.

KLEIN, L.

Aspects of River Pollution

March 1957, 621 pp., illus., \$14.50

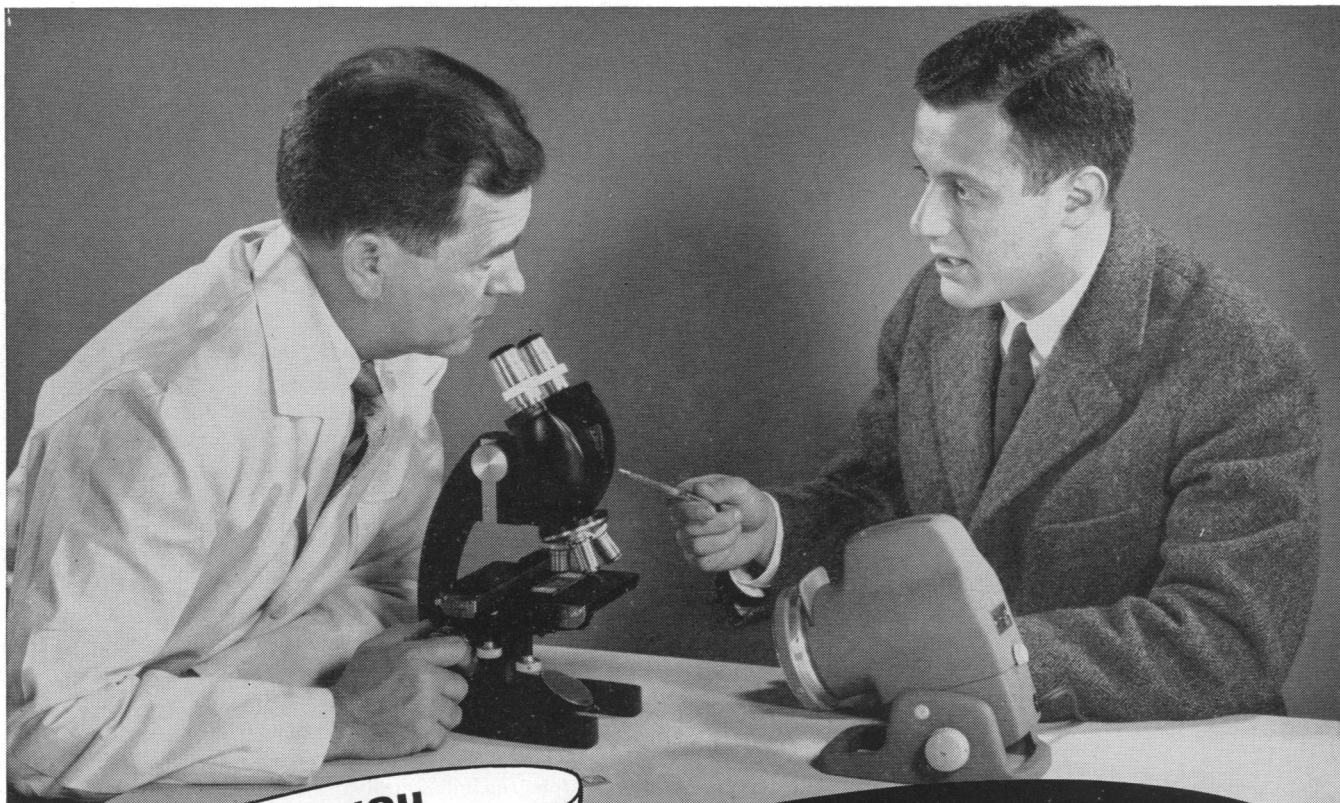
Intended particularly for those directly concerned with anti-pollution work, such as government departments, river boards, local authorities, and manufacturers, this book will also be of interest to public analysts, sanitary inspectors, engineers, and public health authorities.

KLOTZ, I. M.

**Some Principles of Energetics in
Biochemical Reactions**

April 1957, 64 pp., illus., \$3.00

Prepared especially for biochemists, physiologists, and biologists interested in the molecular bases of biological phenomena, the book contains a brief and clear exposition of the essential concepts of energetics and assumes for mathematical background only the principles of arithmetic.



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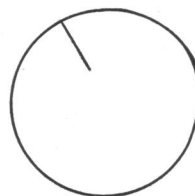
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the use of dinitrophenylated derivatives for the quantitative paper chromatography of amino acids, the methods of Khorana for the synthesis of various phosphorylated compounds are not described, and the synthesis of optically active triose phosphates is omitted.

It may be that such omissions, and undoubtedly others, were unavoidable in view of the time and space that were available. When new methods appear so frequently, smaller, more specialized volumes are probably more useful. With these reservations, I feel that the book as a whole will undoubtedly be of great utility in any biochemical laboratory.

RICHARD S. SCHWEET
California Institute of Technology

New Books

Biology and Its Relation to Mankind. A. M. Winchester. Assisted by B. J. Kaston. Van Nostrand, Princeton, N.J., ed. 2, 1957. \$7.25.

Progress in the Age of Reason. The 17th century to the present day. R. V. Sampson. Harvard University Press, Cambridge, Mass., 1956. 259 pp. \$4.25.

The Changing Patient-Doctor Relationship. Martin G. Vorhaus. Horizon Press, New York, 1957. 310 pp. \$3.95.

Social Theory and Social Structure. Robert K. Merton. Free Press, Glencoe, Ill., rev. ed., 1957. 663 pp. \$7.50.

Dextran and Its Use in Colloidal Infusion Solutions. Anders Gronwall. Academic Press, New York, 1957. 156 pp. \$4.

Handbuch der Physik, vol. XL. *Nuclear Reactions I.* S. Flügge, Ed. Springer, Berlin, 1957. 553 pp. DM. 128.

Nuclear Power Engineering. Henry C. Schwenk and Robert H. Shannon. B. G. A. Skrotzki, Ed. McGraw-Hill, New York, 1957. 335 pp. \$6.50.

Recent Advances in Invertebrate Physiology, a Symposium. Sponsored by the National Science Foundation, the Tektronix Foundation, and the University of Oregon. Bradley T. Scheer, Ed. University of Oregon Publications, Eugene, 1957. 310 pp. \$5.50.

Drug Resistance of Microorganisms. Robert J. Schnitzer and Emanuel Grunberg. Academic Press, New York, 1957. 409 pp. \$10.

The Proceedings of the Third International Conference on Electron Microscopy, London 1954. V. E. Cosslett, chairman, Editorial Committee. R. Ross, General Ed. Royal Microscopical Society, London, 1956. 721 pp. \$15.

The Physiology of Fishes, vol. I, *Metabolism.* Margaret E. Brown, Ed. Academic Press, New York, 1957. 460 pp. \$12.

Neutron Transport Theory. R. B. Davison and J. B. Sykes. Clarendon Press, Oxford, 1957. 470 pp. \$12.

Life. An introduction to biology. George G. Simpson, Colin S. Pittendrigh, and Lewis H. Tiffany. Harcourt, Brace, New York, 1957. 859 pp.

Rectifying Semi-Conductor Contacts. H. K. Henisch. Clarendon Press, Oxford, 1957. 384 pp. \$11.20.

Semiconductor Abstracts, vol. III, 1955. Abstracts of literature on semiconducting and luminescent materials and their applications. Compiled by Battelle Memorial Institute. Sponsored by the Electrochemical Society, Inc. E. Paskell, Ed. Wiley, New York; Chapman & Hall, London, 1957. 330 pp. \$10.

Microwave Principles. Herbert J. Reich, John G. Skalnik, Philip F. Ordnung, and Herbert L. Krauss. Van Nostrand, Princeton, N.J., 1957. 436 pp. \$8.75.

Kinetics and Thermodynamics in Biochemistry. H. Geoffrey Bray and Kenneth White. Academic Press, New York, 1957. 355 pp. \$7.50.

The Next Hundred Years. Man's natural and technological resources. A discussion prepared for leaders of American industry. Harrison Brown, James Bonner, and John Weir. Viking, New York, 1957. 193 pp. \$3.95.

United States Army in World War II. The technical services. *The Signal Corps: the test* (December 1941 to July 1943). George Raynor Thompson, Dixie R. Harris, Pauline M. Oakes, and Dulany Terrett. Office of the Chief of Military History, Department of the Army, Washington, D.C. (order from Supt. of Documents, GPO, Washington 25), 1957. 636 pp. \$4.50.

Mitochondria and Other Cytoplasmic Inclusions, No. X. Symposia of the Society for Experimental Biology. Published for the Company of Biologists on behalf of the Society for Experimental Biology by Academic Press, New York, 1957. 198 pp. \$9.50.

Miscellaneous Publications

(Inquiries concerning these publications should be addressed, not to Science, but to the publisher or agency sponsoring the publication.)

A Monograph on the Termitophilous staphylinidae (Coleoptera) Fieldiana: Zoology, vol. 40. Charles H. Seevers. Chicago Natural History Museum, Chicago, Ill., 1957. 334 pp. \$6.50.

The Odonata of Louisiana. Tulane Studies in Zoology, vol. 5, No. 5. George H. Bick. Tulane University, New Orleans, La., 1957. 65 pp. \$1.

Results of the Archbold Expeditions. No. 76. *A New Species of Wallaby (Genus Dorcopsis) from Goodenough Island, Papua.* American Museum Novitates, Number 1826. Hobart M. Van Deusen. American Museum of Natural History, New York, 1957. 25 pp.

Survey of Research Projects in the Field of Aviation Safety. Sixth annual supplement, January 1957. Harry F. Guggenheim, chairman. Daniel and Florence Guggenheim Aviation Safety Center at Cornell University, New York, N.Y., and Los Angeles, Calif., 1957. 114 pp.

Flora of Peru. Botanical Ser., vol XIII, pt. IIIA, No. 2. Publ. 808. J. Francis MacBride. Field Museum of Natural History, Chicago, 1956. 555 pp. \$5.50.

Subject Index of School of Aviation Medicine Research Reports. January 1942-December 1956. Air University, School of Aviation Medicine, USAF, Randolph AFB, Texas, 1957. 72 pp.

Summaries of Studies in Agricultural Education. An annotated bibliography of studies in agricultural education with classified subject index. Vocational Div. Bull. No. 265, Agr. Ser. No. 69. Supplement No. 10 to Vocational Div. Bull. No. 180. U.S. Office of Education, Washington, 1957 (order from Superintendent of Documents, Government Printing Office, Washington 25, D.C.). 94 pp. \$0.45.

Electromyographic Factors in Aircraft Control. Experimental investigation of the effect of a muscle tension reflex upon simple instructed movements. Rept. No. 55-123. R. C. Davis. 1956. 21 pp. *Electromyographic Factors in Aircraft Control.* Muscular activity during steady noise and its relation to instructed responses evoked by visual signals. Rept. No. 55-126. R. C. Davis. 1957. 9 pp. *Electromyographic Factors in Aircraft Control.* Muscular tensions during simultaneous performance of two tasks and their effect on performance. Rept. No. 55-128. R. C. Davis. 1956. 14 pp. *Electromyographic Factors in Aircraft Control.* The development and loss of a muscle tension set to an incidental stimulus. Rept. No. 55-130. John Benson Fink. 1956. 15 pp. *Electromyographic Factors in Aircraft Control.* The effect of induced tension upon muscular activity during simple voluntary movement. Rept. No. 55-133. Rollin M. Patton. 1957. 20 pp. *Electrocardiographic Observations on Ten Subjects at Sea Level and during One Year of Residence at High Altitude.* Rept. No. 56-98. Dante Peñaloza. 1956. 12 pp. *Maximal Diffusing Capacity of the Lungs at High Altitudes.* Rept. No. 56-108. Tulio Velásquez. 1956. 9 pp. *Comparative X-ray Dosimetry.* Rept. No. 56-109. Sanford C. Sigoloff, Loren C. Logie, Henry M. Borella, John C. Tourville. 1957. 4 pp. *The Development and Validation of a Checklist for Measuring Subjective Fatigue.* Rept. No. 56-115. Richard G. Pearson and George E. Byars, Jr. 1956. 16 pp. *Spectrophotometric Characterization of Light-Induced Changes in Autopolymerizing Resins.* Effect of ultraviolet light upon plastic specimens containing excess liquid. Rept. No. 56-124. Bertram Eichel, Theodore E. Fischer, John E. Sartore, Byron G. Butt. 1956. 5 pp. *Probability and Statistics in Item Analysis and Classification Problems.* Statistical decision theory approach to item selection for dichotomous test and criterion variables. Rept. No. 56-139. Howard Raiffa. 1957. 76 pp. *Evaluation of a Rapid (Hemoglobin Reduction) Method for Determining Antibiotic Susceptibility of Microorganisms.* Rept. Nos. 57-5 to 57-10. Joseph A. Bass, Frank B. Engley, Roland B. Mitchell, T. G. Blocker, Jr. 1956. 23 pp. *Human Stress Response in Jet Aircraft Operations.* Rept. No. 57-16. Thaddeus J. Domanski. 1956. 4 pp. *Metabolic Patterns of Selected Members of the Genus Lactobacillus.* Potassium uptake studies. Rept. No. 57-18. Ira L. Shannon and Norman O. Harris. 1957. 6 pp. *Direct Photometry of Diffusing Precipitin Systems for Characterizing Proteins.* Rept. No. 57-37. William G. Glenn. 1957. 5 pp. Air University, School of Aviation Medicine, USAF, Randolph Air Force Base, Tex.