

## Of Importance to Every Worker in Medical or Biological Science—

Translation and publication of  
THEODOR BOVERI'S now famous  
study of nuclear pathology of  
cancer is announced.  
It is entitled

# THE ORIGIN of MALIGNANT TUMORS

and presents Boveri's views of the bearing upon the cancer problem of his intimate and profound studies of distorted nuclei.

Apart from its interest in connection with cancer or with cytology the study is a brilliant example of the use of scientific imagination guided by close reasoning and almost uncanny accuracy in method.

The book presents the theory of multipolar mitosis and its effect upon "chromatin-complex"; some results of experimental cytology; application of the theory to tumors; value of the theory as an explanation; consideration of some objections; conclusions.

*A Valuable Contribution to the Cancer Problem.*

Price, \$2.50

**The Williams & Wilkins  
Company,** Baltimore, U. S. A.

*Publishers of Scientific Books and Periodicals*

## JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE

The School of Medicine is an Integral Part of the University and is in the Closest Affiliation with the Johns Hopkins Hospital.

### ADMISSION

Candidates for admission must be graduates of approved colleges or scientific schools with two years' instruction, including laboratory work, in chemistry, and one year each in physics and biology, together with evidence of a reading knowledge of French and German.

Each class is limited to a maximum of 75 students, men and women being admitted on the same terms. Applications may be sent any time during the academic year but not later than June 15th.

If vacancies occur, students from other institutions desiring advanced standing may be admitted to the second or third year provided they fulfill the requirements and present exceptional qualifications.

### INSTRUCTION

The academic year begins the Tuesday nearest October 1, and closes the second Tuesday in June. The course of instruction occupies four years and especial emphasis is laid upon practical work in the laboratories, in the wards of the Hospital and in the dispensary.

### TUITION

The charge for tuition for 1929-30 will be \$600 per annum, payable in two installments. There are no extra fees except for certain expensive supplies, and laboratory breakage.

Inquiries should be addressed to the Executive Secretary of the School of Medicine, Johns Hopkins University, Washington and Monument Sts., Baltimore, Md.

Graduates in Medicine who satisfy the requirements of the heads of the departments in which they desire to work are accepted as students for a period not less than three quarters. Tuition charge is \$50 a quarter.

# BIOLOGICAL SUPPLIES

Zoological

Embryological

Botanical

Materials

Drosophila

Cultures



Groups

Slides

Life

Histories

Philippine

Land Shells

A Good Book on Seashore Ecology. Verrill's  
Vineyard Sound Report. \$3.00.

Catalogs will be sent on request  
Address all correspondence to

Geo. M. Gray, Curator  
Supply Department

**Marine Biological Laboratory**

Woods Hole, Mass., U. S. A.

# Polar Molecules

P. DEBYE, PH.D.

*Professor of Physics and Director of Physikalisches Institute in the University of Leipzig, Germany.*

**172 Pages**

**Just out**

**Price \$3.50**

A survey of questions treated in connection with the notion of polar molecules as being systems having a distribution of electrical charges which can be characterized by a permanent electric moment. Many contributions on the experimental side of the problem have shown that absolute measurement of polarity based on that notion may successfully be used to determine the geometrical arrangement of the atoms in a molecule. On the theoretical side the introduction of the quantum theory in its modern form has made it possible to develop in detail the connection existing between polarity and the phenomena of dispersion and absorption, especially in the infra-red.

Chapter I—Fundamental Electrostatic Field Relations—Chapter II—Polarizability and Molecular Structure—Chapter III—Measurement of Polarity and its Connection with Chemical Structure—Chapter IV—The Constitution of Simple Polar Molecules—Chapter V—Anomalous Dispersion for Radio Frequencies—Chapter VI—Electrical Saturation Effects—Chapter VII—Dielectric Phenomena and Quantum Theory—Chapter VIII—Energy Levels and Wave Mechanics—Chapter IX—Rotating Molecules—Chapter X—Dispersion and Absorption of Polar Gases.

## Properties of Inorganic Substances

WILHELM SEGERBLOM

*Second Revised Edition*

**226 Pages**

**Price \$6.00**

A comprehensive index of common and trade names and the latest physical data on over twenty-two hundred compounds. The book consists of a series of comparative tables of the chemical and physical properties of the elements and their inorganic derivatives. The metals are arranged in Fresenius' six groups, and the properties of the members of each group are arranged side by side, thus making comparison easy. The metal itself is treated first and is followed by the salts and other derivatives in alphabetical order. The next section deals in the same way with the inorganic acids, whilst the concluding section deals with the non-metallic elements and all the rarer metals and their compounds.

## Systematic Survey of Rubber Chemistry

CLAYTON W. BEDFORD and

HERBERT A. WINKELMANN

**612 Pages**

**Price \$8.00**

This book is a survey, as accurate and complete as possible, of the books and magazine articles published prior to 1923 relating to the chemistry of rubber. In compiling this work authors searched the collections of fourteen large libraries. The references are presented in an author arrangement and also by subject. An index of the important domestic and foreign patents is given including those of the United States, Austria, Belgium, Canada, England, France, Germany, Holland, Japan, and other countries. In addition to the bibliography, two monographs are included. The first, entitled "Organic Accelerators of Vulcanization," by Dr. L. B. Sebrell. The second, "Theories of Vulcanization," by Dr. W. J. Kelley.

**THE CHEMICAL CATALOG COMPANY, INC.**  
417 Fourth Avenue New York, U. S. A.

## RECENT SCIENTIFIC BOOKS

Any book recorded here may be ordered at the price given (postage additional; also duty on English importations) from The Science Press Distributing Company, Grand Central Terminal, New York, N. Y.

## MATHEMATICS, PHYSICS, ASTRONOMY

- Birtwistle, George.** *The New Quantum Mechanics.* pp. xiii+290. (Macmillan) \$5.00.
- Haldane, J. S.** *Gases and liquids; a contribution to molecular physics.* 334 pp. (Stechert) \$6.50.
- Lämmel, Rudolf.** *Galileo Galilei im Licht des zwanzigsten Jahrhunderts.* 287 pp. Ill. (Franke) \$1.50.
- Lundegardh, Henrik.** *Die quantitative Spektralanalyse der Elemente und ihre Anwendung auf biologische, agrilkulturchemische und mineralogische Aufgaben.* pp. vi+155. Ill. (Fischer) \$4.80.
- Müller-Pouillet.** *Lehrbuch der Physik.* Eleventh ed. Vol. I, part 1: Mechanik punktförm. Massen u. starrer Körper. Edited by Erich Waetzmänn. pp. xvi+860. 673 figs. (Vieweg) \$19.68.
- Newman, F. H., and V. H. L. Searle.** *The general properties of matter.* 388 pp. (Macmillan) \$5.50.
- Nomicos, S.** *Tables tachéométriques.* 128 pp. (Dunod) \$2.00.
- Shapley, Harlow, and Cecilia H. Payne.** (Eds.) *The universe of stars.* Based on radio talks from the Harvard Observatory. Revised ed. pp. vii+198. Ill. (Harvard Observatory) \$2.00.
- Sullivan, J. W. N.** *The bases of modern science.* pp. vi+274. (Doubleday) \$2.00.
- Wartenberg, H. von.** *Hohe und tiefe Temperaturen.* 9 ill. Gasverflüssigung und ihre thermodynamischen Grundlagen by H. Lenz. 64 ill. Wärmeleitung by Osc. Knoblauch and H. Reiher. 34 ill. Wärmestrahlung by W. Wien and C. Müller. 50 ill. 1 plate. (Handbuch d. Experimentalphysik. IX, 1., (Akadem. Verlagsgesellschaft) \$10.71.

## ENGINEERING, TECHNOLOGY

- Betts, Ernest.** *Heraclitus, or, The future of films.* 96 pp. (Dutton) \$1.00.
- Bücherverzeichnis der Zentralbibliothek der deutschen Luftfahrt bei der WGL.* Nach d. Stande vom Mai 1928. pp. ix+335. (Wissenschaftl. Gesellschaft f. Luftfahrt) Paper. \$1.50.
- Colin, J. A.** *Traité complet de la filature du coton.* Vol. II. 416 pp. (Dunod) Paper. \$3.20.
- Collins, A. Frederick.** *Aviation and all about it.* pp. xvi+260. Ill. (Appleton) \$2.00.
- Fraser, Chelsea.** *The story of engineering in America.* pp. viii+471. Ill. (Crowell) \$2.50.
- Kleinogel, A., and Gustav Sigmann.** *Der durchlaufende Träger.* Fert. Formeln u. Tab. zum prakt. Gebr. pp. viii+184. 200 ill. (Ernst) \$4.08.
- Monteith, Charles N.** *Simple aerodynamics and the airplane.* Third ed. rev. by Colonel C. C. Carter. 450 pp. Ill. (Ronald) \$4.50.
- Reiner, Wilhelm.** *Handbuch der neuen Strassenbauweisen mit Bitumen, Teer und Portlandzement als Bindemittel.* pp. xii+400. 216 ill. (Springer) \$7.32.
- Sheldon, H. Horton, and Edgar N. Grisewood.** *Television; present methods of picture transmission.* pp. x+194. Ill. (Van Nostrand) \$2.75.

## CHEMISTRY, CHEMICAL ENGINEERING

- Allen's commercial organic analysis.* Fifth ed. Vol. VII: Vegetable alkaloids. 869 pp. (Blakiston) \$7.50.
- Bell, James M., and Paul M. Gross.** *Elements of physical chemistry.* pp. xiii+466. (Longmans) \$3.75.
- Boll, M., and J. Leroide.** *Précis d'analyse chimique.* Vol. III: Anions. pp. x+468. (Dunod) \$3.08.
- Cohn, Lassar.** *Organic laboratory methods.* General part. Fifth ed. Transl. by Ralph E. Oesper. 480 pp. Ill. (Williams & Wilkins) \$6.50.

## CHEMISTRY, CHEMICAL ENGINEERING—

Continued

- Diels, Otto.** *Einführung in die organische Chemie.* Sixth ed. pp. xv+332. 35 ill. (Weber) \$3.22.
- Feinthal, Franz.** *Artificial silk.* Transl. by M. M. Rowe. Rev. ed. 276 pp. Ill. (Van Nostrand) \$7.50.
- Jahresbericht über die Leistungen der chemischen Technologie.* Bearb. von B. Rassow und A. Loesche. Jg. 74. 1928, Abt. 1: Unorganischer Tl. pp. viii+514. 152 ill. (Barth) \$9.36.
- Jones, T. W.** *Hermes, or, The future of chemistry.* 87 pp. (Dutton) \$1.00.
- Prager, B., D. Stern and K. Ilberg.** *System der organischen Verbindungen.* Ein Leitf. f. d. Benutzung von Beilsteins Handbuch d. organ. Chemie. pp. iii+246. (Springer) \$5.76.
- Scheiber, Johannes, and Kurt Sändig.** *Die künstlichen Harze.* pp. xv+376. 29 ill. (Chemie in Einzeldarstellungen. Vol. XIV) (Wissenschaftl. Verlagsges.) \$6.72.
- Whittaker, Harold F.** (Comp.) *Transactions of the American Institute of Chemical Engineers.* Index to vols. 1 to 15. 228 pp. (Van Nostrand) \$5.00.

## GEOLOGY

- Busk, H. G.** *Earth flexures.* Their geometry and their representation and analysis in geological section with special reference to the problem of oil finding. pp. vi+106. (Macmillan) \$4.00.
- Fischer, Franz** (Ed.) *Gesammelte Abhandlungen zur Kenntnis der Kohle.* Vol. VIII. pp. viii+790. Ill. (Arbeiten d. Kaiser-Wilhelm-Instituts f. Kohlenforschung) (Borntraeger) \$17.76.
- Margerie, E. de.** *Œuvres géologiques de Marcel Bertrand.* Vol. II: pp. viii+688. (Dunod) Paper. \$4.00.
- The Science reports of the Tohoku Imperial University, Sendai, Japan.* Second series (Geology). Vol. XIII, No. 1. (Maruzen)
- Vulkanologische Mededeelingen.* No. 9. Stehn, Ch. E. De Batoer op Bali en zijn eruptie in 1926. 1928. (Nijhoff) Paper. f. 4.50.
- Wüst, Georg.** *Schichtung und Tiefenzirkulation des Pazifischen Ozeans auf Grund zweier Längsschnitte.* 64 pp. Ill. (Veröffentlichungen H. 20.) (Mittler) Paper. \$2.00.

## BIOLOGY

- Bateson, William.** *Scientific papers.* Ed. by R. C. Punnett. 2 vols. 460 pp; 510 pp. Ill. (Macmillan) \$28.50.
- Breder, Charles M., Jr.** *Field book of marine fishes of the Atlantic coast.* pp. xxxvii+332. Ill. (Putnam) \$3.50.
- Fasten, Nathan.** *Origin through evolution.* pp. xiii+456. Ill. (Knopf) Text ed. \$3.00. Trade ed. \$3.75.
- Fischel, Alfred.** *Lehrbuch der Entwicklung des Menschen.* pp. viii+822. 668 ill. (Springer) \$21.32.
- Kossel, A.** *Protamine und Histone.* Nach d. Tode d. Verf. hrsg. von S. Edlbacher. pp. x+97. (Einzeldarstellungen Vol. II.) (Deuticke) \$1.92.
- Osborn, Henry F.** *From the Greeks to Darwin.* The development of the evolution idea through twenty-four centuries. Second ed. pp. xvi+398. (Scribners) \$2.50.
- Pfeiffer, Hans.** *Elektrizität und Eiweisse insbesondere des Zellplasmas.* pp. xii+149. (Wissenschaftliche Forschungsberichte.) (Steinkopff) \$2.76.
- Ramis, Aly I.** *Bestimmungstabellen zur Flora von Aegypten.* pp. v+221. (Fischer) \$2.64.