Book Reviews

Photochimie et Reactions Moleculaires. By Magdeleine Mous-SERON-CANET and JEAN-CLAUDE MANI, Ecole Nationale Superieure de Chimie de Montpellier. Dunod, Paris, France. 1969. xii + 244 pp. 38F.

This book is a brief introduction at a very basic level to the photochemistry of organic compounds with selected references to the leading literature, and three chapters on the photochemistry of some systems of biological interest. The book belongs to the "Foundations of Modern Organic Chemistry Series," and resembles the others in the series in style and format.

S. N. Ege, University of Michigan

The Chemistry of the Nitro and Nitroso Groups. Part 2. Edited by H. FEUER. John Wiley and Sons, Inc., New York, N. Y. 1970. xii + 447 pp. \$22.00.

This book completes the two-part series. It is concerned entirely with C-nitro compounds, except for a chapter on "Biochemistry and Pharmacology of the Nitro and Nitroso Groups." the December 1959 issue of this Journal for a review of Volume 1.)

A History of Dyed Textiles. By STUART ROBINSON. The MIT Press, Cambridge, Mass. 1970. 112 pp. \$10.00.

A History of Printed Textiles. By STUART ROBINSON. The MIT

Press, Cambridge, Mass. 1970. 152 pp. \$10.00.

These two volumes touch only lightly on chemistry, but present a nice synthesis of technology and art. They are beautifully illustrated in color and in black and white.

Synthetic Methods of Organic Chemistry. Volumes 23 and 24. By W. THEILHEIMER. Albert J. Phiebig, Inc., White Plains, N. Y. 1970. xx + 603 pp. SFr. 264 (Vol. 23); xx + 524 pp. SFr. 250 (Vol. 24). \$63.35.

The appearance of a new volume in this annual series becomes more important as the rate of publication of new research accelerates, even though "Theilheimer" long ago reached the level of an essential reference work for the organic chemist engaged in synthesis. The editor and publishers include an ingenious variety of indexes to help the user cope with the mounting mass of material in the volumes, and Volume 24 introduces a new one: a "Formula Index of Functional Combinations." This is essentially an effort to overcome the nomenclature problem; who has not had difficulty locating a type of compound in an index (or even a price list) because his mind did not work the same way as the editor's in naming a particularly complicated functional group? For example, if one is interested in compounds of the type RN=SOCI, he may now arrange the essential elements of the function in alphabetical order, thus: HalNOS. In this new index, one finds under this heading the name "iminosulfonic acid chlorides," which can then be looked up in the conventional subject index. All the older types of index are retained, making nearly a quarter of the book index material.

BOOKS RECEIVED

General Textbooks

- Numerical Aspects of Inorganic Chemistry. By R. B. HESLOP, The University of Manchester Institute of Science and Technology. American Elsevier Publishing Co., Inc., New York, N. Y. 1970. vii + 189 pp. \$4.25. A review textbook on calculations, for undergraduates.
- Cours de Chimie. Volume 1. By J. Amiel, Faculty of Sciences of Paris. Dunod, Paris, France. 1969. vii + 440 pp. 48 F.
- The Chemistry of Matter. By James B. Pierce, Lowell Technological Institute. Houghton Mifflin Co., Boston, Mass. 1970. xi + 799 pp. \$10.50. A general chemistry textbook.
- General Chemistry: Experiment and Theory. By RICHARD H. EASTMAN, Stanford University. Holt, Rinehart & Winston, Inc., New York, N. Y. 1969. xxii + 601 pp. \$12.95.
- The Behavior of Matter: Laboratory Experiments in Introductory Chemistry. By Sydney S. Biechler, Lowell Technological Institute. Houghton Mifflin Co., Boston, Mass. 1970. ix +

- 267 pp. \$4.50. Accompanying Instructor's Manual. vii + 79 pp. \$1.65.
- Experimental General Chemistry. By George G. Hess and UNO KASK, Wright State University and Towson State College. Barnes & Noble, Inc., New York, N. Y. 1970. xix + 262 pp. \$2.95.
- Experiments in General, Organic and Biochemistry. By JOSEPH I. ROUTH and DARRELL P. EYMAN, University of Iowa. W. B. Saunders Co., Philadelphia, Pa. 1970. xii + 263 pp.
- Fundamental Concepts of Chemistry. By Donald I. Hamm, Southwestern State College. Appleton-Century-Crofts, Inc., New York, N. Y. 1969. x + 811 pp. \$9.95.
- Principles of Chemistry, A Structural Approach. By GARTH L. LEE, Utah State University. International Textbook Co., Scranton, Pa. 1970. xiii + 713 pp. \$11.25.

Applied, Nonchemical, etc.

- Control. By Yasundo Takahashi, Michael J. Rabins, and David M. Auslander, University of California, New York University, University of California, Berkeley. Addison-Wesley Publishing Co., Reading, Mass. 1970. xiv + 800 pp. \$17.50. Boundary Layers of Flow and Temperature. Edited by Alfred
- WALZ. The MIT Press, Cambridge, Mass. 1969. ix + 297 pp. \$17.50.
- Elements of Gasdynamics and the Classical Theory of Shock Waves. By YA. B. ZEL'DOVICH and YU. P. RAIZER, Academy of Sciences, U.S.S.R. Edited by WALLACE D. HAYES and RONALD F. PROB-STEIN, Princeton University and Massachusetts Institute of Technology. Academic Press Inc., New York, N. Y. 1969. viii + 115 pp. \$3.95.
- Heat and Mass Transfer in Recirculating Flows. By A. D. Gosman, W. M. Pun, A. K. Runchal, D. G. Spalding, and M. Wolf-SHTEIN, Imperial College of Science and Technology, London. Academic Press Inc., Ltd., London, England. 1969. xii + 338 pp. \$9.50.
- Fungicides. Volume II. Edited by D. C. TORGESON, Boyce Thompson Institute. Academic Press Inc., New York, N. Y. 1969. xv + 742 pp. \$35.00.
- Formulation and Function of Cosmetics. By J. STEPHAN JELLINEK. Translated from the German by G. L FENTON. John Wiley & Sons, Inc., New York, N. Y. 1970. xix + 586 pp. \$27.50.
- Gradwohl's Clinical Laboratory Methods and Diagnosis. Volumes I and II. Seventh Edition. By SAM FRANKEL, STANLEY REIT-MAN, and ALEX C. SONNENWIRTH. C. V. Mosby Co., St. Louis, Mo. 1970. xx + 1180 pp (Vol. 1); xx + 1145 pp(Vol. 11). \$59.50.
- Treatise on Coatings. Volume 2. Characterization of Coatings: Physical Techniques. Part I. Edited by RAYMOND R. MYERS and J. S. Long, Kent State University and University of Southern Mississippi. Marcel Dekker, Inc., New York, N. Y. 1969. xiii + 669 pp. \$39.75.
- Quality Control in the Food Industry. Volume 2. Edited by S. M. HERSCHDOERFER, T. Wall & Sons (Ice Cream) Ltd. Academic Press Inc., Ltd., London, England. 1968. xv + 440 pp. \$17.50.
- Solvent Extraction Research, Proceedings of the Fifth International Conference on Solvent Extraction Chemistry. Edited by A. S. KERTES and Y. MARCUS, The Hebrew University. John Wiley & Sons, Inc., New York, N. Y. 1969. xvi + 439 pp. \$29.50.
- Aquatic Chemistry. An Introduction Emphasizing Chemical Equilibria in Natural Waters. By WERNER STUMM and JAMES J. MORGAN, Harvard University and California Institute of Technology. John Wiley & Sons, Inc., New York, N. Y. 1970. xv + 583 pp. \$24.95
- Catalytic Processes and Proven Catalysts. By Charles L. Thomas, Tempe, Ariz. Academic Press Inc., New York, N. Y. 1970. xi + 284 pp. \$12.50.
- Advances in Environmental Sciences and Technology. Volume I. Edited by James N. Pitts, Jr., and Robert L. Metcalf, University of California and University of Illinois. John Wiley & Sons, Inc., New York, N. Y. 1969. 356 pp. \$15.95. Residue Reviews. Volumes 27 and 28. Edited by Francis A.
- GUNTHER, University of California, Riverside. Springer-Verlag New York, Inc., New York, N. Y. 1969. 143 pp (Vol. 27); 127 pp (Vol. 28).

- Cleaning Our Environment. The Chemical Basis for Action. A Report by the Subcommittee on Environmental Improvement, Committee on Chemistry and Public Affairs, American Chemical Society, 1969. American Chemical Society, Washington, D. C. 1969. ix + 249 pp. \$2.75.
- Plastic Foams. Volumes 1 and 1I. By CALVIN JAMES BENNING, International Paper Co. John Wiley & Sons, Inc., New York, N. Y. 1969. xii + 665 pp (Vol. I); xii + 363 pp (Vol. II). \$75.00 for the set.
- From Organic Chemistry to Macromolecules, A Scientific Autobiography Based on My Original Papers. By HERMANN STAUD-INGER. John Wiley & Sons, Inc., New York, N. Y. 1970. xvi + 303 pp. \$14.95.
- Thermal Stability of Polymers in Two Volumes. Volume 1. Monographs in Macromolecular Chemistry. Edited by ROBERT T. CONLEY, Wright State University. Marcel Dekker, Inc., New York, N. Y. 1970. x + 644 pp. \$44.50.
- Reviews in Macromolecular Chemistry. Volume 5. Part 2. Edited by George B. Butler, Kenneth O'Driscoll, and Mitchel SHEN, University of Florida, University of Waterloo and University of California, Berkeley. Marcel Dekker, Inc., New York, N. Y. 1970. vi + 236 pp. \$17.50.
- Polymers in Space Research. Edited by Charles L. Segal, MITCHEL SHEN, and FRANK N. KELLEY, Whittaker Corp., University of California, Berkeley, and Air Force Rocket Propulsion Laboratory, Edwards, Calif. Marcel Dekker, Inc., New York, N. Y. 1970. xvii + 462 pp. \$24.50.
- Active Carbon. Manufacture, Properties and Applications. By M. SMISEK and S. CERNY, Czechoslovak Academy of Sciences. American Elsevier Publishing Co., Inc., New York, N.Y. 1970. xii + 479 pp. \$30.00. A comprehensive treatise with extensive bibliography.
- Phosphoric Acid, Phosphates and Phosphatic Fertilizers. By WM. H. WAGGAMAN, Bureau of Mines, U. S. Department of Interior. Hafner Publishing Co., New York, N. Y. 1969. vii + 683 pp. \$31.50.
- Kinetic Processes in Gases and Plasmas. Edited by A. R. Hoch-STIM, Institute for Defense Analysis. Academic Press Inc., New York, N. Y. 1969. xiv + 458 pp. \$22.50.
- The Use of Chemical Literature. Second Edition. Edited by R. T. BOTTLE. Archon Books, Hamden, Conn. 1969, xii + 294 pp. \$10.00.
- Physics of Strength and Plasticity. Edited by Ali S. Argon. The MIT Press, Cambridge, Mass. 1969. xxv + 404 pp. \$12.50.
- Principles of X-Ray Metallurgy. By T. Kovacs, Hatfield College of Technology. Plenum Press, New York, N. Y. 1969. 185 pp. \$9.50.
- An Introduction to Experimentation. By ERNEST RABINOWICZ, Massachusetts Institute of Technology. Addison-Wesley Publishing Co., Reading, Mass. 1970. viii + 124 pp. \$3.25. Electrochemical Processes in Fuel Cells. By Manfred W. Breiter,
- General Electric Research and Development Center. Springer-Verlag, New York, N. Y. 1969. xi + 274 pp. \$12.00.
- Fuel Cells. By Wolf Vielstich, University of Bonn. John Wiley and Sons, Inc., New York, N. Y. 1970. xxii + 501 pp. \$25.00. Chimie Industrielle. Volume II. Du Sel au Teflon. By HENRI

GUERIN, Faculte des Sciences d'Orsay. Presses Universitaires de France, Paris, France. 1969. 567 pp.

- Public Safety. A Growing Factor in Modern Design. National Academy of Engineering, Fifth Annual Meeting. Printing and Publishing Office, National Academy of Sciences, Washington, D. C. 1970. vii + 115 pp. \$4.75.
- The Scattering of Light and Other Electromagnetic Radiation. By MILTON KERKER, Clarkson College of Technology. Academic Press, Inc., New York, N. Y. 1969. xv + 666 pp. \$33.50.
- Thin-film Optical Filters. By H. A. Macleod, Sir Howard Grubb, Parsons & Co., Ltd. American Elsevier Publishing Co., Inc., New York, N. Y. 1969. xi + 332 pp. \$22.00.
- Bulletin d'Information Scientifique de la Faculté des Sciences de Paris. Laboratoires de Recherche Chimie, 1968-1969. Dunod, Paris, France. 1969. x + 146 pp.
- Bulletin d'Information Scientifique de la Faculté des Sciences de Paris. Laboratoires de Recherche Geologie-Biologie, 1968-1969. Dunod, Paris, France. 1969. xiii + 268 pp.
- Bulletin d'Information Scientifique de la Faculté des Sciences de Paris. Laboratoires de Recherche Mathematiques Appliquees Physique, 1968-1969. Dunod, Paris, France. xii + 208 pp. 27 F.

- Mathematiques. 1. Elements d'algebre. By L. Chambadal, Ancien eleve de l'Ecole Normale Superieure Agrege de l'Université. Dunod, Paris, France. xvi + 236 pp. 1969. 23 F.
- Ministry of Technology. Report of the Government Chemist, 1968. Sales Section, British Information Services, New York, N. Y. 1969. vii + 191 pp. \$3.50.
- Essays in Chemistry. Volume I. Edited by J. N. Bradley, R. D. GILLARD, and R. F. HUDSON, University of Essex, and University of Kent at Canterbury. Academic Press Inc., Ltd., London, England. 1970. x + 115 pp. \$3.25.
- Potassium-Argon Dating, Principles, Techniques and Applications to Geochronology. By G. Brent Dalrymple and Marvin A. LANPHERE, U. S. Geological Survey. W. H. Freeman & Co., San Francisco, Calif. 1969. xiv + 258 pp. \$7.50.
- Hackh's Chemical Dictionary (American and British Usage). Fourth Edition. Edited by Julius Grant. McGraw-Hill Book Co., Inc., New York, N. Y. 1969. xi + 738 pp. \$29.50. Mass Transfer in Heterogeneous Catalysis. By Charles N. Satter-
- FIELD. The MIT Press, Cambridge, Mass. 1970. xvi + 267 pp. \$14.25.
- Chemical Engineering Kinetics. Second Edition. By J. M. SMITH, University of California at Davis. McGraw-Hill Book Co., Inc., New York, N. Y. 1970. xviii + 612 pp. \$15.50. A textbook with problems.
- The Chemistry and Uses of Fire Retardants. By JOHN W. LYONS, Monsanto Co. John Wiley & Sons, Inc., New York, N. Y. 1970. xiv + 462 pp. \$22.50.
- Computer Logic. A Laboratory Workbook. By H. V. MALM-STADT and C. G. ENKE, University of Illinois and Michigan State University. W. A. Benjamin, Inc., New York, N. Y. 1970 viii + 167 pp. \$4.95.
- Science and Technology in the World of the Future. Edited by ARTHUR B. BRONWELL, University of Connecticut. John Wiley & Sons, Inc., New York, N. Y. 1970. xxi + 394 pp. \$11.95.
- Dictionary of Fuel Technology. By Alan Gilpin. Philosophical Library Inc., New York, N. Y. 1969. xii + 275 pp. \$20.00.
- Basic Color Terms: Their Universality and Evolution. By BRENT BERLIN and PAUL KAY. University of California Press, Berkeley, Calif. 1970. xi + 178 pp. \$8.50.
- Fluid Mechanics. By NOEL DE NEVERS, University of Utah. Addison-Wesley Publishing Co., Inc., Reading, Mass. 1970. xiv + 514 pp. \$16.50. A textbook.
- Advances in Chemical Engineering. Volume 8. Edited by THOMAS B. DREW, GILES R. COKELET, JOHN W. HOOPES, JR., and THEO-DORE VERMEULEN, Massachusetts Institute of Technology, Montana State University, Atlas Chemical Industries, Inc., and University of California at Berkeley. Academic Press Inc., New York, N. Y. 1970. xii + 386 pp. \$18.50.
- A First Course in Computing and Numerical Methods. By JOHN A. JACQUEZ, University of Michigan. Addison-Wesley Publishing Co., Reading, Mass. 1970. xvi + 365 pp. \$11.50. A textbook for students in various sciences, requiring only a limited mathematical background.
- The Engineering Uses of Holography. Proceedings of a Conference held at the University of Strathclyde, September 1968. Edited by E. R. ROBERTSON and J. M. HARVEY. Cambridge University Press, New York, N. Y. 1970. xxx + 589 pp. \$39.50.
- Proceedings of the 1970 Heat Transfer and Fluid Mechanics Institute Held at the Naval Postgraduate School, Monterey, California, June 10-12, 1970. Edited by Turgut Sarpkaya. Stanford University Press, Stanford, Calif. 1970. x + 370 pp. \$15.00.
- Steam Tables. Thermodynamic Properties of Water Including Vapor, Liquid, and Solid Phases. By Joseph H. Keenan, Fred-ERICK G. KEYES, PHILIP G. HILL, and JOAN G. MOORE, MIT, MIT, Queen's University, MIT. John Wiley & Sons, Inc., New York, N. Y. 1969. xii + 162 pp. \$9.95.
- Thesaurus of Textile Terms Covering Fibrous Materials and Processes. Edited by Stanley Backer and Emery I. Valko. The MIT Press, Cambridge, Mass. 1969. xv + 448 pp. \$25.00.

Organic Chemistry

- Methods in Free-radical Chemistry. Volume 2. Edited by EARL S. HUYSER, University of Kansas. Marcel Dekker, Inc., New York, N. Y. 1969. ix + 242 pp.
- Carbonium lons. Volume II. Methods of Formation and Major Types. Edited by George A. Olah and Paul von R. Schleyer, Case Western Reserve University and Princeton University. John Wiley & Sons, Inc., New York, N. Y. 1970. x + 500 pp. Organic Syntheses. Volume 50. Edited by R. Reslow. John

Wiley & Sons, Inc., New York, N. Y. 1970. xv + 115 pp,

- plus 20 unnumbered. \$7.95. This volume introduces a new policy under which preparations recently received but not yet checked are listed, with directions for ordering preprints of the unchecked procedures.
- Characterization of Organic Compounds by Chemical Methods. An Introductory Laboratory Textbook. By Terence C. Owen, University of South Florida. Marcel Dekker, Inc., New York, N. Y. 1969. vii + 247 pp. \$6,75.
- The Chemistry of Functional Groups. The Chemistry of Alkenes. Volume 2. Edited by JACOB ZABICKY, The Weizmann Institute of Science. John Wiley & Sons, Inc., New York, N. Y. 1970. xiv + 669 pp. \$31.00.
- The Chemistry of Functional Groups. The Chemistry of the Carbonyl Group. Volume 2. Edited by JACOB ZABICKY, The Weizmann Institute of Science. John Wiley & Sons, Inc., New York, N. Y. 1970. xv + 428 pp. \$23.50.
- The Chemistry of Synthetic Dyes. Volume III. Edited by K. Venkataraman, National Chemical Laboratory, Poona, India. Academic Press Inc., New York, N. Y. 1970. xix + 485 pp. \$77.50
- Organic Electronic Spectral Data. Volume VI. Edited by JOHN P. PHILLIPS, LEON D. FREEDMAN, AND J. CYMERMAN CRAIG. John Wiley & Sons, Inc., New York, N. Y. 1970. xv + 1324 pp. \$40.00.
- Metallocene Polymers. Volume 5. Part 1. Reviews in Macromolecular Chemistry. Edited by EBERHARD W. NEUSE and HAROLD ROSENBERG, F. J. Weck Company Industry and Wright-Patterson Air Force Base. Marcel Dekker, Inc., New York, N. Y. 1970. iv + 162 pp. \$12.75.
- Carbon Monoxide in Organic Synthesis. By JURGEN FALBE. Springer-Verlag New York, Inc., New York, N. Y. 1970. ix + 219 pp. \$16.00.
- Free-Radical Chain Reactions. By EARL S. HUYSER, University of Kansas. John Wiley & Sons, Inc., New York, N. Y. 1970. vii + 387 pp. \$19.95.
- *Fortschritte der Chemie Organischer Naturstoffe. Volume XXVII. Edited by L. Zechmeister, California Institute of Technology. Springer-Verlag New York, Inc., New York, N. Y. 1969. viii + 412 pp.
- *Natural Products. A Laboratory Guide. By RAPHAEL JKAN, Hebrew University. Academic Press Inc., Ltd., London, England. 1969. xvi + 295 pp. \$10.00.
- *The Chemistry of Organotin Compounds. By R. C. Poller, University of London. Academic Press Inc., New York, N. Y. 1970. vii + 315 pp. \$16.50.
- *The Organic Chemistry of Tin. By WILHELM P. NEUMANN, University of Dortmund. John Wiley & Sons, Inc., New York, N. Y. 1970. xiii + 282 pp. \$15.50.

 *Chemistry of the Alkaloids. Edited by S. W Pelletier, Uni-
- *Chemistry of the Alkaloids. Edited by S. W Pelletier, University of Georgia. Van Nostrand-Reinhold Co., New York, N. Y. 1970. xx + 795 pp. \$24.95.
- The Chemistry of the Isoquinoline Alkaloids. By Tetsuji Kametani, Tohoku University. American Elsevier Publishing Co., New York, N. Y. 1969. 266 pp. \$21.00.
- Reviews in Macromolecular Chemistry. Volume 4. Edited by George B. Butler and Kenneth F. O'Driscoll, University of Florida and State University of New York. Marcel Dekker, Inc., New York, N. Y. 1970. viii + 419 pp. \$17.50.
- Vinyl Polymerization. Volume 1. Part 11. Edited by GEORGE E. HAM, Geigy Chemical Corp. Marcel Dekker, Inc., New York, N. Y. 1969. xiii + 416 pp. \$22.50.
- Structure and Mechanism in Vinyl Polymerization. Edited by Telli Tsuruta and Kenneth F. O'Driscoll, University of Tokyo and State University of New York. Marcel Dekker, Inc., New York, N. Y. 1969. xii + 540 pp. \$29.50.
- Polymer Chemistry of Synthetic Elastomers. Volume 23. Part 2. Edited by Joseph P. Kennedy and Erik Tornqvist, Esso Research. John Wiley & Sons, Inc., New York, N. Y. 1969. xiv + 553 pp. \$27.50.
- Ring-Opening Polymerization. Volume 2. Edited by Kurt C. Frisch and Sidney L. Reegen, University of Detroit. Marcel Dekker, Inc., New York, N. Y. 1969. xii + 528 pp.
- Kinetics and Mechanism of Polyreactions. Preprints. Volume V. IUPAC International Symposium on Macromolecular Chemistry. Akademiai Kiado, Budapest. 1969. 497 pp.
- Kinetics and Mechanism of Polyreactions. Preprints. Volume IV. IUPAC International Symposium on Macromolecular Chemistry. Akademiai Nyomda, Budapest. 1969 373 pp.
 - * This book will be reviewed at a later date.

- Kinetics and Mechanism of Polyreactions. Preprints. Volume III. 1UPAC International Symposium on Macromolecular Chemistry. Akademiai Kiado, Budapest. 1969. 445 pp.
- Kinetics and Mechanism of Polyreactions. Preprints. Volume II. 1UPAC International Symposium on Macromolecular Chemistry. Akademiai Kiado, Budapest. 1969. 425 pp.
- Syntheses and Reactions in Organic Chemistry. By WILLIAM E. PARHAM, University of Minnesota. John Wiley & Sons, Inc., New York, N. Y. 1970. ix + 547 pp. \$9.95. A textbook for graduate students and advanced undergraduates.
- Leitfaden der Farbstoffchemie. By P. Rys-H. Zollinger. Verlag Chemie, GmbH, Weinheim/Bergstr., Germany. 1970. vii + 220 pp. A volume in the "Chemische Taschenbücher" series; introductory, with selected references.
- Introduction to Physical Organic Chemistry. By RICHARD D. GILLIOM, Southwestern at Memphis. Addison-Wesley Publishing Co., Reading, Mass. 1970. vii + 341 pp. \$13.50. A textbook for advanced undergraduates.
- Introduccion a la Resonancia Magnetica Nuclear. By Pedro Joseph-Nathan and Eduardo Diaz T., Instituto Politecnico Nacional and Universidad Nacional Autonoma de Mexico. Editorial Limusa-Wiley, S. A., Mexico. 1970. 190 pp. \$4.00. An introductory textbook.
- Traité de Chimie Organique. Maitrise de Chimie. Volume 2. By Ch. Prevost, Faculté des Sciences de Paris. Dunod, Paris, France. 1970. xxi + 388 pp. 49 F. A review of organic reactions for students, without references.
- An Introductory Course in Practical Organic Chemistry. By F. D. Gunstone, D. M. Smith, and J. T. Sharp, University of St. Andrews, and University of Edinburgh. Methuen and Co., Ltd., London, England. 1970. xv + 174 pp. \$5.50. A laboratory manual.
- Introduction to Organic and Biological Chemistry. By STUART J. BAUM, State University of New York. The Macmillan Co., New York, N. Y. 1970. xvii + 471 pp. \$9.95.
- Introduction to Organic Chemistry. By D. B. BIGLEY and R. J. E. Talbot, University of Kent at Canterbury. American Elsevier Publishing Co., New York, N. Y. 1969. x + 400 pp. \$7.50.
- High Polymers. Volume 23. Part 2. Polymer Chemistry of Synthetic Elastomers. Edited by J. P. Kennedy and E. Tornquist. John Wiley & Sons, Inc., New York, N. Y. 1969. \$27.50.
- Elementary Organic Chemistry. A Brief Course. By HARRIS O, VAN ORDEN and GARTH L. LEE, Utah State University. W. B, Saunders Co., Philadelphia, Pa. 1969. ix + 329 pp. \$8.25.
- Organic Chemistry: An Experimental Approach. By JAMES S. SWINEHART, Perkin-Elmer Corp. Appleton-Century-Crofts, Inc., New York, N. Y. 1969. xiv + 599 pp.

Biological and Pharmaceutical Chemistry

- Synthesis of Penicillin, Cephalosporin C and Analogs. By Maghar S. Manhas and Ajay K. Bose, Stevens Institute of Technology. Marcel Dekker, Inc., New York, N. Y. 1969. xii + 118 pp. \$8.75.
- Recent Advances in Phytochemistry. Volume 2. Proceedings of the Seventh Annual Symposium of the Phytochemical Society of North America. Edited by Margaret K. Seikel and V. C. Runeckles, U. S. Department of Agriculture and Imperial Tobacco Co. of Canada Ltd. Appleton-Century-Crofts, Inc., New York, N. Y. 1969. 175 pp.
- Topics in Lipid Chemistry. Volume 1. Edited by F. D. GUNSTONE, University of St. Andrews. John Wiley & Sons, Inc., New York, N. Y. 1970. ix + 451 pp. \$22.00.
- Chemistry of Sphingolipids. By D. Shapiro, Weizmann Institute of Science. Hermann, Paris, France. 1969. 111 pp. 30 F.
- The Carbohydrates. Chemistry/Biochemistry. Volume IIA. Second Edition. Edited by Ward Pigman and Derek Horton, New York Medical College and The Ohio State University. Academic Press Inc., New York, N. Y. 1970. xviii + 521
- The Carbohydrates. Chemistry/Biochemistry. Volume IIB. Second Edition. Edited by WARD PITMAN and DEREK HORTON, New York Medical College and the Ohio State University. Academic Press Inc., New York, N. Y. 1970. xvi + 431 pp. \$22.00.
- The Biochemistry of Folic Acid and Related Pteridines. By R. L. BLAKLEY, Australian National University. John Wiley & Sons, Inc., New York, N. Y. 1969. xxi + 569 pp.
- The Biochemistry of Alkaloids (Molecular Biology. Volume 3).

 By Trevor Robinson. Springer-Verlag New York, Inc., New York, N. Y. 1968. x + 149 pp. \$9.75.

- Natural Substances Formed Biologically from Mevalonic Acid. Biochemical Society Symposium No. 29. Edited by T. W. Goodwin. Academic Press Inc., New York, N. Y. 1970. ix + 186 pp. \$8.00.
- The Chemistry and Biochemistry of Steroids. By Leland J. Chinn, Paul D. Klimstra, John S. Baran, and Raphael Pappo. Intra-Science Research Foundation, Santa Monica, Calif. Geron-X, Inc., Los Altos, Calif. 1969. iv + 166 pp. \$12.00.
- Biological and Biochemical Applications of Electron-Spin Resonance. By D. J. E. INGRAM, University of Keele. Plenum Publishing Corp., New York, N. Y. 1969. viii + 311 pp. \$20.00.
- Gas Chromatography in Biology and Medicine. A Ciba Foundation Symposium. Edited by R. PORTER. J. & A. Churchill Ltd., London, England. 1969. ix + 213 pp. 60 s. Includes the texts of 14 papers with references, plus the oral discussions.
- Brown, University of Missouri. Academic Press Inc., New York, N. Y. 1969. xii + 338 pp. \$16.00.
- Concepts and Models of Biomathematics. Biomathematics. Volume 1. Edited by F. Heinmets, U. S. Army Natick Laboratories. Marcel Dekker, Inc., New York, N. Y. 1969. xi + 287 pp. \$16.75.
- Automation, Mechanization and Data Handling in Microbiology. Edited by ANN BAILLIE and R. J. GILBERT, Unilever Research Laboratory, and Central Public Health Laboratory, London. Academic Press Inc., Ltd., London, England. 1970. xiv + 233 pp. \$9.75.
- Atomic Absorption Spectroscopy: Applications in Agriculture, Biology and Medicine. By Gary D. Christian and Fredric J. Feldman, University of Kentucky and Beckman Instruments, Inc. Wiley-Interscience, New York, N. Y. 1970. xix + 490 pp. \$16.50.
- Spectral Data of Natural Products. Volume 1. By K. Yamaguchi, Torii & Co., Ltd., Japan. American Elsevier Publishing Co., Inc., New York, N. Y. 1970. v + 765 pp. \$56.00.
- Laboratory Techniques in Biochemistry and Molecular Biology.

 Volume 2. Edited by T. S. Work and E. Work, N.1.M.R.,

 Mill Hill and Imperial College London. 1970. North-Holland

 Publishing Co. Distributed by American Elsevier Publishing

 Co., Inc., New York, N. Y. 1970. viii + 400 pp. \$24.00.

 The Mechanism of Action of Dehydrogenases. A Symposium in
- The Mechanism of Action of Dehydrogenases. A Symposium in Honor of Hugo Theorell. Edited by George W. Schwert and Alfred D. Winer. The University Press of Kentucky, Lexington, Ky. 1970. xi + 256 pp. \$8.50.
- Methods in Enzymology. Volume XVI. Fast Reactions. Edited by Kenneth Kustin, Brandeis University. Academic Press Inc., New York, N. Y. 1969. xv + 405 pp. \$19.50.
- Essays in Biochemistry. Volume 5. Edited by P. N. CAMPBELL and G. D. Greville, University of Leeds and Agricultural Research Council, England. Academic Press Inc., Ltd., London, England. 1969. xiii + 195 pp. \$4.25.
- Biochemical Predestination. By Dean H. Kenyon and Gary Steinman, San Francisco State College and Pennsylvania State University. McGraw-Hill Book Co., Inc., New York, N. Y. 1969. xvii + 301 pp. \$4.95.
- Self and Not-Self. Cellular Immunology. Book One. By Sir Macfarlane Burnet, Nobel Laureate. Cambridge University Press, New York, N. Y. 1969. viii + 318 pp. \$8.50.

 Marine Chemistry in Two Volumes. Volume 2. Theory and
- Marine Chemistry in Two Volumes. Volume 2. Theory and Applications. By Dean F. Martin, University of South Florida Marcel Dekker, Inc., New York, N. Y. 1970. xi + 451 pp. \$9.50.
- Non-marine Organic Geochemistry (Cambridge Earth Science Series). By Frederick M. Swain, University of Minnesota. Cambridge University Press, New York, N. Y. 1970. xii + 445 pp. \$32.50.
- Polysaccharide-Protein Complexes in Invertebrates. By Stephen Hunt, University of Lancaster. Academic Press Inc., Ltd., London, England. 1970. 329 pp. \$14.50
- London, England. 1970. 329 pp. \$14.50.

 Techniques in Protein Biosynthesis. Volume 2. Edited by P. N. CAMPBELL and J. R. SARGENT, University of Leeds and University of Aberdeen. Academic Press Inc., Ltd., London, England. 1969. xiii + 273 pp. \$12.00.
- The Proteins. Composition, Structure and Function. Second Edition. Volume V. Metalloproteins. Edited by Hans Neurath, University of Washington. Academic Press Inc., New York, N.Y. 1970. xvii + 192 pp. \$10.00.
- Nucleoside Antibiotics. By ROBERT J. SUHADOLNIK, Albert Einstein Medical Center. John Wiley & Sons, Inc., New York, N. Y. 1970. x + 442 pp. \$22.50.

- Physiological Chemistry of Proteins and Nucleic Acids in Mammals. By George Kaldor, Woman's Medical College of Pennsylvania. W. B. Saunders Co., Philadelphia, Pa. 1969. xii + 221 pp. \$9.00.
- Physical Principles and Techniques of Protein Chemistry. Part A. Edited by SYDNEY J. LEACH, University of Melbourne. Academic Press Inc., New York, N. Y. 1969. xiii + 530 pp. \$24.00.
- Structural and Functional Aspects of Lipoproteins in Living Systems.

 Edited by E. Tria and A. M. Scanu, Universita degli Studi,
 Rome, and The University of Chicago. Academic Press Inc.,
 Ltd., London, England. 1969. xxiii + 661 pp. \$26.00.

 Biological Polyelectrolytes. Biological Macromolecules Series
- Biological Polyelectrolytes. Biological Macromolecules Series Volume 3. Edited by ARTHUR VEIS, Northwestern University Medical School. Marcel Dekker, Inc., New York, N. Y. 1970. viii + 291 pp. \$19.75.
- Protein Sequence Determination. Methods and Techniques. By S. BLACKBURN, University of Leeds. Marcel Dekker, Inc., New York, N. Y. 1970. ix + 292 pp. \$16.75.
- Atlas of Protein Sequence and Structure, 1969. Volume 4. By MARGARET O. DAYHOFF. National Biomedical Research Foundation, Silver Spring, Md. xxiv + 460 pp.
- Modern Microcrystal Tests for Drugs. By Charles C. Fulton. John Wiley & Sons, Inc., New York, N. Y. 1969. xviii + 466 pp. \$29.95.
- Cellular Immunology. Books One and Two. By Sir Macfarlane Burnet. Cambridge University Press, New York, N. Y. 1969. viii + 725 pp. \$18.50.
- Hormonal Control Systems. Supplement 1. Mathematical Biosciences. Edited by EDWIN B. STEAR and ARNOLD H. KADISH, University of California, Los Angeles, and California Institute of Technology. American Elsevier Publishing Co., Inc., New York, N. Y. 1969. xiv + 304 pp. \$16.00.
- Use of Nonhuman Primates in Drug Evaluation. A Symposium. Edited by HAROLD VAGTBORG. University of Texas Press, Austin, Texas. 1968. xii + 640 pp. \$15.00.
- Metabolic Pathways. Amino Acids and Tetrapyrroles. Volume 3. Third Edition. Edited by DAVID M. GREENBERG, University of California. Academic Press Inc., New York, N. Y. 1969. xiv + 622 pp. \$27.50.
- The Yeasts. Volume 1. Biology of Yeasts. Edited by A. H. Rose and J. S. Harrison, Bath University and The Distillers Co. (Yeast) Ltd. Academic Press Inc., Ltd., London, England. 1969. xiii + 508 pp. \$19.50.
- Chemical Control of Fibrinolysis-Thrombolysis. Theory and Clinical Applications. Edited by Joseph M. Schor, Endo Laboratories Garden City N. Y. 1970. xvi + 328 pp. \$17.95.
- tories, Garden City, N. Y. 1970. xvi + 328 pp. \$17.95.

 Advances in Clinical Chemistry. Volume 13. Edited by Oscar Bodansky and C. P. Stewart, Sloan-Kettering Institute for Cancer Research and University of Edinburgh. Academic Press Inc., New York, N. Y. 1970. xi + 535 pp. \$22.50.
- Molecular Orbital Studies in Chemical Pharmacology. Edited by LEMONT B. KIER. Springer-Verlag New York, Inc., New York, N. Y. 1969. 290 pp. \$9.40. A collection of symposium papers.
- The Biochemistry of Inorganic Compounds of Sulphur. By A. B. Roy and P. A. TRUDINGER, Australian National University and Baas Becking Geobiological Laboratory, Canberra. Cambridge University Press, New York, N. Y. 1970. xv + 400 pp. \$18.50.
- Bayer-Symposium II. New Aspects of Storage and Release Mechanisms of Catecholamines. Edited by H. J. Schumann and G. Kroneberg. Springer-Verlag New York, Inc., New York, N. Y. 1970. x + 301 pp. \$13.20.
- Surfactant Biodegradation. Volume 3. By R. D. Swisher, Monsanto Co. Marcel Dekker, Inc., New York, N. Y. 1970. xxiii + 496 pp. \$33.50.
- Biological Effects of Pesticides in Mammalian Systems. Annals of the New York Academy of Sciences. Edited by HERMAN F. KRAYBILL. New York Academy of Sciences, New York, N. Y. 1969. 422 pp. \$23.00.
- Toxic Properties of Inorganic Fluorine Compounds. By R. Y. EAGERS, Laporte Industries Ltd., England. American Elsevier Publishing Co., Inc., New York, N. Y. 1969. x + 152 pp. \$8.00.
- Progress in Chemical Toxicology. Volume 4. Edited by A. Stol-MAN, Connecticut State Department of Health. Academic Press Inc., New York, N. Y. 1969. xii + 428 pp. \$19.00.

Physical Chemistry

- Sigma Molecular Orbital Theory. By OKTAY SINANOGLU and KENNETH B. WIBERG, Yale University. Yale University Press, New Haven, Conn. 1970. ix + 455 pp. \$17.50.
- Molecular Complexes. A Lecture and Reprint Volume. By ROBERT S. MULLIKEN and WILLIS B. PERSON, University of Chicago and University of Florida. John Wiley & Sons, Inc., New York, N. Y. 1969. xv + 498 pp. \$19.50.
- Quantum Electronics. Volume 1. Basic Theory. By V. M. FAIN and YA. I. KHANIN. The MIT Press, Cambridge, Mass. 1969. xix + 314 pp. \$16.50.

 Quantum Electronics. Volume 2. Maser Amplifiers and Oscil-
- Quantum Electronics. Volume 2. Maser Amplifiers and Oscillators. By V. M. Fain and Ya. I. Khanin. The MIT Press, Cambridge, Mass. 1969. xix + 312 pp. \$16.50.
- Advances in Quantum Chemistry. Volume 5. Edited by PeroLOV LOWDIN, Uppsala University. Academic Press Inc., New York, N. Y. 1970. xv + 303 pp. \$17.00. Solute-Solvent Interactions. Edited by J. F. Coetzee and Calvin
- Solute-Solvent Interactions. Edited by J. F. COETZEE and CALVIN D. RITCHIE, University of Pittsburgh and State University of New York at Buffalo. Marcel Dekker, Inc., New York, N. Y. 1969. xiv + 653 pp. \$29.50.
- Liquid Semiconductors. By Vasilii M. Glazov, Svetlana N. Chizhevskaya, and Natal'ya N. Glagoleva, Moscow Institute for Steel and Alloys and Academy of Sciences of the U.S.S.R. Plenum Press, New York, N. Y. 1969. xii + 362 pp. \$22.50.
- Acid-Base Behavior in Aprotic Organic Solvents. NBS Monograph 105. By Marion Maclean Davis. National Bureau of Standards, Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 1968. v + 151 pp. \$2.25.
- Ionization, Conductivity and Breakdown in Dielectric Liquids. By IGNACY ADAMCZEWSKI, Technical University of Gdansk, Poland. Taylor & Francis Ltd., London, England. 1969. xv + 439 pp. L 8.10; \$27.50.
- Reverse Osmosis. By S. SOURIRAJAN, National Research Council of Canada. Academic Press Inc., New York, N. Y. 1970. xix + 580 pp. \$25.00.
- Regular and Related Solutions. The Solubility of Gases, Liquids, and Solids. By JOEL H. HILDEBRAND, JOHN M. PRAUSNITZ, and ROBERT L. SCOTT, University of California, Berkeley and Los Angeles. Van Nostrand-Reinhold Co., New York, N. Y. 1970. ix + 228 pp. \$10.95.
- Massachusetts Institute of Technology Wavelength Tables. Edited by George R. Harrison, Massachusetts Institute of Technology. The MIT Press, Cambridge, Mass. 1969. xxxiv + 429 pp. \$25.00
- Infrared Spectroscopy. Experimental Methods and Techniques. By James E. Stewart, Durrum Instrument Corp. Marcel Dekker, Inc., New York, N. Y. 1970. xiii + 636 pp. \$36.50.
- Vibrational Spectra of Benzene Derivatives. By G. Varsanyi, The Technical University, Budapest. Academic Press Inc., Ltd., London, England. 1969. 430 pp.
- Ltd., London, England. 1969. 430 pp.

 Dynamic Mass Spectrometry. Volume 1. Edited by D. PRICE and J. E. WILLIAMS, University of Salford and Field Tech Ltd., Heyden & Son Ltd., London, England. 1970. 247 pp. \$13.50.
- Laser Raman Spectroscopy. By T. R. GILSON and P. J. HENDRA, University of Southampton. John Wiley & Sons, Inc., New York, N. Y. 1970. xiv + 266 pp.
- Chemie Heisser Atome. Chemische Reaktionen als Folge von Kernprozessen. By Gerhard Stocklin. Verlag Chemie, GmbH, Weinheim/Bergstr., Germany. 1969. ix + 284 pp.

 Theoretical Chemistry Series. Volume 2. Methods of Molecular
- Theoretical Chemistry Series. Volume 2. Methods of Molecular Quantum Mechanics. By R. McWeeny and B. T. Sutcliffe, University of Sheffield and University of York. Academic Press Inc., Ltd., London, England. 1969. ix + 307 pp. \$13.50.
- Chemical Applications of Spectroscopy. Part II. Microwave Molecular Spectra. By Walter Gordy and Robert L. Cook, Duke University. John Wiley & Sons, Inc., New York, N. Y. 1970. ix + 747 pp. \$32.50.
- Molecular Photoelectron Spectroscopy. A Handbook of He 584 Å Spectra. By D. W. Turner, C. Baker, A. D. Baker, and C. R. Brundle, University of Oxford, B. P. Chemicals, Swansea University, and Bell Telephone Laboratories. John Wiley & Sons, Inc., New York, N. Y. 1970. x + 386 pp. \$19.50.
- The Chemical Consequences of Nuclear Spin. By P. J. WHEATLEY, Queens' College, England. American Elsevier Publishing Co., Inc., New York, N. Y. 1970. 192 pp. \$11.50.
- Theory and Interpretation of Fluorescence and Phosphorescence. By RALPH S. BECKER, University of Houston. John Wiley & Sons, Inc., New York, N. Y. 1969. xiv + 283 pp. \$14.95.

- Molecular Interactions and Electronic Spectra. By Noboru Mataga and Tanekazu Kubota, Osaka University and Shionogi & Co. Ltd. Marcel Dekker, Inc., New York, N. Y. 1970. xi + 504 pp. \$28.50.
- Atoms and Molecules: An Introduction for Students of Physical Chemistry. By Martin Karplus and Richard N. Porter, Harvard University and University of Arkansas. W. A. Benjamin, Inc., New York, N. Y. 1970. xiv + 620 pp.
- Introduction a la Thermodynamique Chimique. By S. GROMB and J. JOUSSOT-DUBIEN. Dunod, Paris, France. 1969. xvii + 262 pp. 19 F.
- Advances in Catalysis and Related Subjects. Volume 20. Edited by D. D. Eley, Herman Pines, and Paul B. Weisz, The University of Nottingham, Northwestern University, and Mobil Research and Development Corp. Academic Press Inc., New York, N.Y. 1969. xvii + 438 pp. \$19.50.
- York, N. Y. 1969. xvii + 438 pp. \$19.50.

 Advances in High Pressure Research. Edited by R. S. Bradley,
 The University, Leeds. Academic Press Inc., Ltd., London,
 England. 1969. x + 280 pp. \$12.00.

 The Hydrated Electron. By Edwin J. Hart and Michael Anbar,
- The Hydrated Electron. By EDWIN J. HART and MICHAEL ANBAR, Argonne National Laboratory and Stanford Research Institute. John Wiley & Sons, Inc., New York, N. Y. 1970. xiii + 267 pp. \$12.95.
- Principles of Radiation Chemistry. By James H. O'Donnell and David F. Sangster, University of Queensland and Australian Atomic Energy Commission. American Elsevier Publishing Co., Inc., New York, N. Y. 1970. viii + 176 pp. \$7.75. Advances in Radiation Chemistry. Volume 1. Edited by Milton
- Advances in Radiation Chemistry. Volume 1. Edited by MILTON BURTON and JOHN L. MAGEE, University of Notre Dame. John Wiley & Sons, Inc., New York, N. Y. 1969. xi + 401 pp. \$16.50.
- Introduction to Nuclear Physics and Chemistry. Second Edition.

 By Bernard G. Harvey, University of California. Prentice-Hall, Inc., Englewood Cliffs, N. J. 1969. xiii + 463 pp. \$14.95.
- Pulse Radiolysis. By Max S. Matheson and Leon M. Dorfman, Argonne National Laboratory and Ohio State University. The MIT Press, Cambridge, Mass. 1969. x + 202 pp. \$11.75.
- Comprehensive Chemical Kinetics. Volume 3. The Formation and Decay of Excited Species. Edited by C. H. Bamford and C. F. H. Tipper, University of Liverpool. American Elsevier Publishing Co., Inc., New York, N. Y. 1969. xii + 300 pp. \$25.00.
- Gas Kinetics. By G. L. Pratt. John Wiley & Sons, Inc., New York, N. Y. 1969. ix + 246 pp. \$9.50.
- Introduction a la Cinetique Heterogene. By Bernard Delmon. Editions Technip, Paris, France. xvii + 695 pp.
- The Elucidation of Organic Electrode Processes. By P. Zuman, Czechoslovak Academy of Sciences. Academic Press Inc., New York, N. Y. 1969. viii + 176 pp. \$9.00.
- Electrochemistry. By J. Koryta, J. Dvorak, and V. Bohackova, Charles University, Prague. Methuen and Co., Ltd., London, England. Distributed in the United States by Barnes & Noble, Inc., New York, N. Y. 1970. xv + 350 pp. \$16.75.
- Crystal Structures. Second Edition. Volume 6. The Structure of Benzene Derivatives. By RALPH W. G. WYCKOFF, University of Arizona. John Wiley & Sons, Inc., New York, N. Y. 1969. viii + 455 pp. \$27.50.
- Fourier Methods in Crystallography. By G. N. RAMACHANDRAN and R. SRINIVASAN, University of Madras, India. John Wiley & Sons, Inc., New York, N. Y. 1970. xiii + 259 pp. \$15.95.
- The Chemistry of Extended Defects in Non-Metallic Solids. Edited by Leroy Eyring and Michael O'Keeffe, Arizona State University. American Elsevier Publishing Co., Inc., New York, N. Y. 1970. ix + 669 pp. \$34.50.
 Phase Equilibria—Basic Principles, Applications, Experimental
- Phase Equilibria—Basic Principles, Applications, Experimental Techniques. By Arnold Reisman, 1BM. Academic Press Inc., New York, N. Y. 1970. xy + 541 pp. \$27.50.
- New York, N. Y. 1970. xv + 541 pp. \$27.50.

 Phase Diagrams. Volume 1, II, and III. Edited by ALLEN M. ALPER. Sylvania Electric Products, Inc. Academic Press Inc., New York, N. Y. 1970. xviii + 358 pp (Vol. I); xviii + 354 pp (Vol. II); xviii + 325 pp (Vol. III). \$16.00 each.
- Surfactant Science Series. Volume 4. Cationic Surfactants. Edited by Eric Jungermann, Armour-Dial Inc. Marcel Dekker, Inc., New York, N. Y. 1970. xiv + 652 pp. \$37.50.
- Hydrophobic Surfaces. Edited by Frederick M. Fowkes, Lehigh University. Academic Press Inc., New York, N. Y. 1969. xvi + 227 pp. \$9.50.
- Symposium on Electronic Phenomena in Chemisorption and Catalysis on Semiconductors, Held in Moscow, 1968. Edited by K. HAUFFE

- and Th. Wolkenstein, University of Göttingen and Academy of Science, Moscow. Walter de Gruyter & Co., Berlin, Germany. 1969. xii + 261 pp.
- Dispersion of Powders in Liquids with Special Reference to Pigments. Edited by G. D. Parfitt, British Titan Products Co., Ltd. American Elsevier Publishing Co., Inc., New York, N. Y. 1969. xiii + 354 pp. \$18.50.
- Progress in Analytical Chemistry. Volume 2. Physical Measurement and Analysis of Thin Films. Edited by E. M. MURT and W. G. GULDNER, Philco-Ford Corp. and Bell Telephone Laboratories. Plenum Press, New York, N. Y. 1969. xi + 194 pp. \$12.50.
- Solid State Surface Science. Volume 1. Edited by Mino Green, Zenith Radio Research Corp., Ltd., England. Marcel Dekker, Inc., New York, N. Y. 1969. xii + 420 pp. \$18.50.
- The Theory of Adsorption and Catalysis. By ALFRED CLARK, Phillips Petroleum Co. Academic Press Inc., New York, N. Y. 1970. x + 418 pp. \$19.50.
- Physical Surfaces. By J. J. BIKERMAN, Cleveland, Ohio. Academic Press Inc., New York, N. Y. 1970. ix + 476 pp. \$25.00.
- The Structure and Chemistry of Solid Surfaces. Edited by GABOR A. SOMORJAI, University of California. John Wiley & Sons, Inc., New York, N. Y. 1969. xxiv + 84 contributions. \$37.50.

Analytical Chemistry

- Gas Chromatography Abstracts-1968. Edited by C. E. H. KNAP-MAN. Elsevier Publishing Co., London, England. 1969. xvii + 285 pp. \$16.50.
- A Programmed Introduction to Gas-Liquid Chromatography. By J. B. Pattison, Imperial Chemical Industries Ltd. Heyden and Son Ltd., London, England. 1969. xv + 303 pp. \$4.95.
- Fifth International Symposium on Chromatography and Electrophoresis. Ann Arbor-Humphrey Science Publishers, Inc., Ann Arbor, Mich. 1969. 594 pp. \$17.50.
- Ancillary Techniques of Gas Chromatography. Edited by Leslie S. Ettre and William H. McFadden. Encyclopedia of Industrial Chemical Analysis and International Flavors and Fragrances (U. S.). John Wiley & Sons, Inc., New York, N. Y. 1969. xi + 395 pp. \$17.50.
- Practical Manual of Gas Chromatography. Edited by J. TRANCH-ANT, Laboratories des Poudres, Paris. American Elsevier Publishing Co., Inc., New York, N. Y. xix + 387 pp. 1970. \$30.00. Translated from the second French edition.
- Gas-Adsorption Chromatography. By Andrei V. Kiselev and Yakov I. Yashin, Moscow University and Academy of Sciences of the U.S.S.R. Plenum Press, New York, N. Y. 1969. x + 254 pp. \$20.00.
- Progress in Thin-Layer Chromatography and Related Methods.

 Volume 1. Edited by A. Niederwieser and G. Pataki. Ann
 Arbor Humphrey Science Publishers, Inc., Ann Arbor, Mich.
 1970. xv + 224 pp. \$15.00.

 Clinical Analysis by Thin-Layer Chromatography Techniques.
- Clinical Analysis by Thin-Layer Chromatography Techniques. By Ronald M. Scott, Eastern Michigan University. Ann Arbor-Humphrey Science Publishers, Inc., Ann Arbor, Mich. 1969. xi + 227 pp. \$18.75.
- Thin-Layer Chromatography. A Laboratory Handbook. Edited by EGON STAHL. Springer-Verlag New York, Inc., New York, N. Y. 1969. xxiv + 1041 pp. \$35.20.
- Advances in Chromatography. Volume 9. Edited by J. Calvin Giddings and Roy A. Keller, University of Utah and State University of New York, Fredonia. Marcel Dekker, Inc., New York, N. Y. 1970. xiv + 358 pp. \$18.75.
- Chromatography. Edited by D. R. Browning, Bristol Polytechnic, England. McGraw-Hill Book Co., Inc., New York, N. Y. 1970. vii + 151 pp. \$7.50.
- X-Ray Diffraction Methods in Polymer Science. By Leroy E. ALEXANDER, Carnegie-Mellon University. John Wiley & Sons, Inc., New York, N. Y. 1969. xv + 582 pp. \$27.95.
- Fluorescence Analysis. A Practical Approach. By Charles E. White and Robert J. Argauer, University of Maryland and U. S. Dept. of Agriculture. Marcel Dekker, Inc., New York, N. Y. 1970. x + 389 pp. \$18.75.
- Applied Spectroscopy Reviews. Volume 3. Edited by EDWARD G. Brame, Jr., E. I. du Pont de Nemours and Co., Wilmington, Del. Marcel Dekker, Inc., New York, N. Y. 1970. xii + 345 pp. \$17.50.
- Colorimetric Methods of Analysis Including Photometric Methods. Volume IVAA. By Foster Dee Snell and Cornelia T. Snell. Van Nostrand-Reinhold Co., New York, N. Y. 1970. xii + 626 pp. \$24.50.

- Masking and Demasking of Chemical Reactions. Theoretical Aspects and Practical Applications. By D. D. Perrin, Australian National University. John Wiley & Sons, Inc., New York, N. Y. 1970. x + 211 pp. \$12.95.
- Electrophoresis—Technical Applications. A Bibliography of Abstracts. By B. J. Haywood, Ann Arbor, Mich. Ann Arbor-Humphrey Science Publishers, Inc., Ann Arbor, Mich. 1969. vii + 440 pp. \$18.75.
- Cellulose Acetate Electrophoresis Techniques and Applications. By H. P. Chin, University of Southern California. Ann Arbor-Humphrey Science Publishers, Inc., Ann Arbor, Mich. 1970. vii + 139 pp. \$15.75.
- An Introduction to Ion Exchange. By Russell Paterson, University of Glasgow. Heyden and Son Ltd., London, England. 1970. vi + 109 pp. \$6.00.
- Hydration and Intermolecular Interaction. Infrared Investigations with Polyelectrolyte Membranes. By GEORG ZUNDEL, Universität München. Academic Press Inc., New York, N. Y. 1969. xi + 310 pp. \$18.00.
- Molecular Spectroscopy with Neutrons. By Henri Boutin and Sidney Yip. The MIT Press, Cambridge, Mass. 1968. xvii + 226 pp. \$10.00.
- Instrumentation in the Chemical and Petroleum Industries. Volume 5. Edited by GEORGE H. ROBINSON, E. I. du Pont de Nemours and Co., Wilmington, Del. Plenum Press, New York, N. Y. 1969. vii + 88 pp.
- Instrumental Analysis Manual. Modern Experiments for the Laboratory. By George G. Guilbault and Larry G. Hargis, Louisiana State University. Marcel Dekker, Inc., New York, N. Y. 1970. xi + 444 pp. \$7.75.
- Analysis Instrumentation. Volume 6. Edited by L. Fowler, B. L. Connelly, and R. G. Krueger, Monsanto Co., Union Carbide and Leeds and Northrup Co. Plenum Press, New York, N. Y. 1969. viii + 375 pp. \$18.50.
- Thermal Characterization Techniques. Volume 2. Edited by Phillip E. Slade, Jr., and Lloyd T. Jenkins, Monsanto Co. and Chemstrand Research Center. Marcel Dekker, Inc., New York, N. Y. 1970. x + 371 pp. \$18.75.
- Differential Thermal Analysis. Volume 1. Edited by R. C. MACKENZIE, The Macaulay Institute for Soil Research, Aberdeen. Academic Press Inc., Ltd., London, England. 1970. xv + 775 pp.
- Thermal Analysis. Volume 1. Instrumentation, Organic Materials and Polymers. Edited by ROBERT F. SCHWENKER, JR., and PAUL D. GARN, Johnson & Johnson and University of Akron. Academic Press Inc., New York, N. Y. 1969. xxiii + 717 pp. \$19.50.
- Chemical Analysis. Volume 32. Determination of Organic Compounds: Methods and Procedures. By Frederick T. Weiss, Shell Development Co. John Wiley & Sons, Inc., New York, N. Y. 1970. x + 475 pp. \$17.50.
- Analytical Chemistry of the Polyurethanes. High Polymers. Volume XVI. Part III. By D. J. DAVID and H. B. STALEY, Mobay Chemical Co., New Martinsville, W. Va. John Wiley & Sons, Inc., New York, N. Y. 1969. xii + 627 pp. \$28.50.
- Chemical Analysis Series. Volume 31. Photometric Organic Analysis. Basic Principles with Applications. Part 1. By EUGENE SAWICKI, Cincinnati. John Wiley & Sons, Inc. New York, N. Y. 1970. xv + 679 pp. \$32.50.
- Complexometric Titrations. By GEROLD SCHWARZENBACH and HERMANN FLASCHKA. Translated and revised by H. M. N. H. Irving, University of Leeds. Methuen & Co., Ltd. Distributed in the United States by Barnes & Noble, Inc., New York, N. Y. 1969. xxii + 490 pp. \$14.50.
- Complexometry with EDTA and Related Reagents. By T. S. West, Imperial College. BDH Chemicals Ltd., Dorset, England. 1969. 235 pp.
- Ultra Micro Weight Determination in Controlled Environments. Edited by S. P. Wolsky and E. J. Zdanuk, P. R. Mallory & Co., Inc., Burlington, Mass. John Wiley & Sons, Inc., New York, N. Y. 1969. ix + 511 pp. \$19.95.
- Undergraduate Instrumental Analysis. By James W. Robinson,
 Louisiana State University. Marcel Dekker, Inc., New York,
 N. Y. 1970. xvii + 379 pp. \$11.50. Textbook for undergraduates and technicians.
- Chemical Analysis. An Intensive Introduction to Modern Analysis. By W. E. Harris and B. Kratochvil, University of Alberta. Barnes & Noble, Inc., New York, N. Y. 1970. viii + 220 pp. \$4.25. A laboratory manual for an introductory course.

- A First Course in Quantitative Analysis. By RAY U. BRUMBLAY, The University of Wisconsin. Addison-Wesley Publishing Co., Reading, Mass. 1970. ix + 420 pp. \$9.95.
- Travaux Pratiques de Chimie Minerale. Precis d'analyse Qualitative. By G. DOUBLE, G. FERRONI, and A. PETROCCHI, Faculte des Sciences de Marseille. Dunod, Paris, France. 1970. viii + 213 pp.
- Quantitative Chemical Analysis. Fourth Edition. By I. M. KOLTHOFF, E. B. SANDELL, E. J. MEEHAN, and STANLEY BRUCKENSTEIN, University of Minnesota and State University of New York at Buffalo. The Macmillan Co., New York, N. Y. 1969. xii + 1199 pp. \$14.95.
- Encyclopedia of Industrial Chemical Analysis. Volume 8. Bromine to Carrier Gas and Vacuum Fusion Methods. Edited by Foster Dee Snell and Leslie S. Ettre. John Wiley & Sons, Inc., New York, N. Y. 1969. xvi + 737 pp. \$45.00.
- Encyclopedia of Industrial Chemical Analysis. Volume 9. Casein to Chromium. Edited by Foster Dee Snell and Leslie S. Ettre. John Wiley & Sons, Inc., New York, N. Y. 1970. xii + 709 pp. \$45.00.

Inorganic Chemistry

- Progress in Inorganic Chemistry. Volume 12. Edited by Stephen J. Lippard, Columbia University. John Wiley & Sons, Inc., New York, N. Y. 1970. 399 pp. \$19.50.
- The Chemistry of Germanium. By Frank Glockling, Queen's University, Belfast. Academic Press Inc., Ltd., London, England. 1969. viii + 234 pp. \$11.00.
- The Chemistry of Inorganic Ring Systems. Part 1 and Part 2. By Ionel Halduc, University of Cluj, Romania. John Wiley & Sons, Inc., New York, N. Y. 1970. 622 pp (Part 1); pp 623-1197 (Part 2). Each volume, \$34.50.
- Electron Transfer Reactions of Complex lons in Solution. By HENRY TAUBE, Stanford University. Academic Press, New York, N. Y. 1970. viii + 103 pp. \$5.75.
- Inorganic Reaction Mechanisms. Edited by John O. Edwards. John Wiley & Sons, Inc., New York, N. Y. 1970. vii + 350 pp. \$15.95.
- Introduction to Advanced Inorganic Chemistry. Second Edition. By Philip John Durrant and Beryl Durrant, Cambridge University and University of London. John Wiley & Sons, Inc., New York, N.Y. 1970. xv + 1250 pp. \$22.00.
- NMR Studies of Boron Hydrides and Related Compounds. By GARETH R. EATON and WILLIAM N. LIPSCOMB, Harvard University. W. A. Benjamin, Inc., New York, N. Y. 1969. ix + 617 pp. \$16.00.

- Classics in Coordination Chemistry. Part 1. The Selected Papers of Alfred Werner. Edited and Translated by George B. Kauffman, California State College at Fresno. Dover Publications, Inc., New York, N. Y. 1968. xiii + 190 pp. \$2.50.
- Infrared Spectra of Inorganic and Coordination Compounds. Second Edition. By Kazuo Nakamoto, Marquette University. 1970. John Wiley & Sons, Inc., New York, N. Y. xv + 338 pp. \$14.95.
- Basic Principles of Ligand Field Theory. By Hans L. Schlafer and Gunter Gliemann. John Wiley & Sons, Inc., New York, N. Y. 1969. xv + 535 pp. \$22.00.
- Inorganic Crystal Chemistry. By I. NARAY-SZABO. Akademiai Kiado, Budapest, Hungary. 1969. 480 pp. \$20.00.
- The Periodic System of Chemical Elements. A History of the First Hundred Years. By J. W. van Spronsen, University of Utrecht, The Netherlands. American Elsevier Publishing Co., lnc., New York, N. Y. 1969. xv + 368 pp. \$18.00.
- Diffusion Data. A Continuous Compilation of New Reference Data on Diffusion Process in Inorganic Solids and Their Melts. Volume
 No. 4. December 1969. Diffusion Information Center Cleveland, Ohio. 1969. 251 pp. \$38.00.
- High Temperature Oxides. Part 1. Magnesia, Lime and Chrome Refractories. Edited by ALLEN M. ALPER, Sylvania Electric Products. Academic Press Inc., New York, N. Y. 1970. xvi + 358 pp. \$17.00.
- High Temperature Oxides. Part 11. Oxides of Rare Earths, Titanium, Zirconium, Hafnium, Niobium and Tantalum. Edited by Allen M. Alper. Sylvania Electric Products. Academic Press Inc., New York, N.Y. 1970. xviii + 276 pp. \$16.50.
- High Temperature Oxides. Part III. MgO, Al₂O₃, BeO, Ceramics: Fabrication, Characterization, and Properties. Edited by Allen M. Alper. Academic Press Inc., New York, N. Y. 1970. xvi + 291 pp. \$17.00.
- Fluorine Chemistry Reviews. Volume 3. Edited by PAUL TAR-RANT, University of Florida. Marcel Dekker, Inc., New York, N. Y. 1969. vi + 154 pp. \$12.50.
- Chemistry and Physics of Carbon. Volume 6. Edited by Philip L. Walker, Jr., The Pennsylvania State University. Marcel Dekker, Inc., New York, N. Y. 1970. x + 354 pp. \$23.50.
- Tin. Its mining, production, technology, and applications. By C. L. Mantell, New York, N. Y. Hafner Publishing Co., Inc., Darien, Conn. 1970. x + 573 pp. \$23.00.
- Copper. The Science and Technology of the Metal, its Alloys and Compounds. By Allison Butts, Lehigh University. Hafner Publishing Co., Inc., Darien, Conn. 1970. xii + 936 pp.
- Zinc. The Science and Technology of the Metal, its Alloys and Compounds. By C. H. MATHEWSON, Yale University. Hafner Publishing Co., Inc., Darien, Conn. 1970. xii + 721 pp. \$19.50.