

Clays and Clay Minerals. Fifth National Conference on Clays and Clay Minerals. University of Illinois, October 8-10, 1956. Sponsored by Committee on Clay Minerals of the National Academy of Sciences-National Research Council, and University of Illinois. ADA SWINEFORD, Editor, State Geological Survey, University of Kansas. Thomas F. Bates, Norman Plummer, William F. Bradley, Monroe H. Waxman and Charles E. Weaver, Associate Editors. The National Academy of Sciences-National Research Council, 2101 Constitution Avenue, Washington, D. C. 1958. vii + 360 pp. 16 X 23.5 cm. Price, \$4.50.

For 4 of the 5 Annual Conferences on Clays and Clay Minerals the collections of contributed papers have been published in book form under these auspices. It would be difficult to imagine a better cross-sectional view of the remarkable strides made in recent years by the science of clays, clay minerals, clay chemistry and clay technology, than is provided by these volumes. The one just published covers the 1956 Conference, and comprises 28 papers, 27 of which are research contributions. Of these 12 are from universities, 8 from industries, primarily by petroleum geologists, and 7 from governmental surveys or bureaus. The impression immediately gained is the very high level of modern instrumental techniques generally known and used by chemists and here employed by these experts of established reputation in the fields of geology, mineralogy and ceramics. Fifteen of the investigations have utilized X-ray diffraction, one of the powerful tools for identification and study of behavior of clays and clay minerals. The electron microscope gives strikingly convincing aid in at least 3; electrical measurements, differential thermal analysis, densities, rheology, sorption and surface area measurements, phase rule, kinetics and statistical methods are further approaches demonstrating the solid scientific status of a science of many ramifications which not so long ago was purely descriptive. A real service is performed by bringing together and integrating these new findings from a wide variety of sources, first in a Conference and then in a permanent record. One might wish to know where there were healthy differences of opinions and constructive discussions on some of the topics. Perhaps these off-the-record ideas will set the tone for the succeeding national conferences. The papers seem to be uniformly well written, documented and illustrated and certainly carefully edited by Editor Swineford and her associates.

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BOOKS RECEIVED

January 10, 1959-February 10, 1959

- C. B. ANFINSEN, JR., M. L. ANSON, KENNETH BAILEY AND JOHN T. EDSALL, Edited by. "Advances in Protein Chemistry." Volume XIII. Academic Press, Inc., 111 Fifth Avenue, New York 3, N. Y. 1958. 524 pp. \$13.80.
- CARLOS G. BELL, JR., AND F. NEWTON HAYES, Editors. "Liquid Scintillation Counting. Proceedings of a Conference held at Northwestern University, August 20-22, 1957." Pergamon Press, 122 East 55th Street, New York 22, N. Y. 1958. 292 pp. \$10.00.

- PAUL D. BOYER, HENRY LARDY AND KARL MYRBÄCK, Edited by. "The Enzymes." Volume 1. "Kinetics. Thermodynamics. Mechanism. Basic Properties." Second Edition, Completely Revised. Academic Press, Inc., 111 Fifth Avenue, New York 3, N. Y. 1959. 785 pp. \$24.00.
- E. A. COULSON AND E. F. G. HERINGTON. "Laboratory Distillation Practice." Interscience Publishers, Inc., 250 Fifth Avenue, New York 1, N. Y. 1958. 166 pp. \$4.50.
- R. EISENSCHITZ. "Statistical Theory of Irreversible Processes." Oxford University Press, 417 Fifth Avenue, New York 16, N. Y. 1958. 84 pp. \$2.00.
- P. M. ENDT AND M. DEMEUR, Edited by. "Nuclear Reactions." Volume I. Interscience Publishers, Inc., 250 Fifth Avenue, New York 1, N. Y. 1959. 502 pp. \$12.50.
- S. FLÜGGE, Edited by. "Encyclopedia of Physics." Volume XII. "Thermodynamics of Gases." Springer Verlag, Heidelberger Platz 3, Berlin-Wilmersdorf, Germany. 1958. 686 pp. Ganzleinen, DM 154.—; Subskriptionspreis, DM 123.20.
- JEROME FOX, Edited by. MARTHA CROWELL, Assistant Editor. "Proceedings of the Symposium on Electronic Waveguides. New York, N. Y., April 8, 9, 10, 1958." Microwave Research Institute Symposia Series. Volume VIII. Interscience Publishers, Inc., 250 Fifth Avenue, New York 1, N. Y. 1958. 418 pp. \$5.00.
- R. HOUWINK. "Elasticity, Plasticity and Structure of Matter." Second Edition. Dover Publications, Inc., 920 Broadway, New York 10, N. Y. 1958. 368 pp. \$2.45.
- J. A. A. KETELAAR. "Chemical Constitution. An Introduction to the Theory of the Chemical Bond." Second, Revised Edition. D. Van Nostrand Company, Inc., 120 Alexander Street, Princeton, New Jersey. 1958. 448 pp. \$8.95.
- F. S. MARTIN AND G. L. MILES. "Chemical Processing of Nuclear Fuels." Academic Press Inc., 111 Fifth Avenue, New York 3, N. Y. 1958. 242 pp. \$7.50.
- J. McCONNELL. "Quantum Particle Dynamics." Interscience Publishers, Inc., 250 Fifth Avenue, New York 1, N. Y. 1958. 252 pp. \$6.00.
- N. F. MOTT AND H. JONES. "The Theory of the Properties of Metals and Alloys." Dover Publications, Inc., 920 Broadway, New York 10, N. Y. 1958. 326 pp. \$1.85.
- M. C. NOKES. "Radioactivity Measuring Instruments. A Guide to Their Construction and Use." Philosophical Library, Inc., 15 East 40th Street, New York 16, N. Y. 1958. 75 pp. \$4.75.
- JOHN D. ROBERTS. "Nuclear Magnetic Resonance. Applications to Organic Chemistry." McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York 36, N. Y. 1959. 118 pp. \$6.00.
- HUNTER ROUSE, Editor. "Advanced Mechanics of Fluids." John Wiley and Sons, Inc., 440 Fourth Avenue, New York 16, N. Y. 1959. 444 pp. \$9.75.
- JAMES F. SWINDELLS. "Calibration of Liquid-in-Glass Thermometers." National Bureau of Standards Circular 600. National Bureau of Standards, Office of Technical Information, Washington 25, D. C. 1959. 21 pp. \$0.20.
- A. H. WAPSTRA, G. J. NIJGH AND R. VAN LIESHOUT. "Nuclear Spectroscopy Tables." Interscience Publishers, Inc., 250 Fifth Avenue, New York 1, N. Y. 1959. 135 pp. \$8.90.