

Rules and Methods for Calculating the Physico-Chemical Properties of Paraffinic Hydrocarbons. By V. M. TATEVSKII, V. A. BENDERSKII, and S. S. YAROVoi. Translated from the Russian by MARGARET F. MULLINS. Translation edited by B. P. MULLINS, Senior Principal Scientific Officer, Ministry of Aviation, Farnborough, Hampshire. Pergamon Press Ltd., Headington Hill Hall, Oxford, England. 1961. xi + 128 pp. 14.5 × 22 cm. Price, \$5.50.

It would be of great help to organic chemists and to chemical engineers if the physical properties of the myriad paraffin hydrocarbons could be predicted from their structures. The efforts of physical chemists to accomplish this have not been particularly successful. It is not surprising, therefore, that other workers who need predictive methods should make their own attempts to develop them.

Tatevskii was neither the first nor the last to venture into this area, but his were probably the earliest massive efforts based on extensive data and a wide range of physical properties.

The authors make an attempt, which I cannot follow, to describe their procedures for predicting properties by additive relations for the various types of bonds as theoretical, while other similar methods are dismissed as purely empirical. Empirical or not, the predictions are useful in situations where they are good enough. Unfortunately, as we go to alkanes of increasing molecular weight, ever new types of interaction become possible, and there is no way to predict whether they are significant. The careful analysis required to justify extrapolation in the particularly simple case of *n*-alkanes is illustrated in a recent publication by Broadhurst (*J. Chem. Phys.*, **36**, 2578 (1962)).

My sympathy with the motivation for this work, as originally reported in 28 publications of the senior author, scarcely extends to its republication as a book, to its translation, and to the dozens of book reviews that seem to be an automatic result. It is no wonder that we are suffocating under piles of paper. The Pergamon Press, having set a price of more than four cents per page for what looks like a cheaply produced book, is sufficiently embarrassed to include a "Publisher's Notice" in defense of this action.

UNIVERSAL OIL PRODUCTS COMPANY
30 ALGONQUIN ROAD
DES PLAINES, ILLINOIS

LOUIS S. KASSEL

BOOKS RECEIVED

September 10, 1962—October 10, 1962

NATHANIEL BRENNER, JOSEPH E. CALLEN, AND MARVIN D. WEISS, Edited by. "Gas Chromatography. Third International Symposium Held Under the Auspices of the Analysis Instrumentation Division of the Instrument Society of America, June 13-16, 1961." Academic Press Inc., 111 Fifth Avenue, New York 3, N. Y. 1962. 719 pp. \$22.00.

FARRINGTON DANIELS, J. W. WILLIAMS, PAUL BENDER, ROBERT A. ALBERTY, AND C. D. CORNWELL. "Experimental Physical Chemistry." Sixth Edition. McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York 36, N. Y. 1962. 625 pp. \$7.95.

D. D. ELEY, P. W. SELWOOD, AND PAUL B. WEISZ, Edited by. "Advances in Catalysis and Related Subjects." Volume 13. Academic Press Inc., 111 Fifth Avenue, New York 3, N. Y. 1962. 458 pp. \$15.00.

DR.-ING. L. V. ERICHSEN. "Friedliche Nutzung der Kernenergie. Ihre Vorteile und Ihre Gefahren." Springer-Verlag, Heidelberger Platz 3, Berlin-Wilmersdorf, Germany. 1962. 235 pp. DM. 16.80.

H. EYRING, Editor, C. J. CHRISTENSEN, Associate Editor, AND H. S. JOHNSTON, Associate Editor. "Annual Review of Physical Chemistry." Volume 13. Annual Reviews, Inc., 231 Grant Avenue, Palo Alto, California. 1962. 528 pp. \$7.00 (U.S.A.); \$7.50 (elsewhere); after January 1, 1963, \$8.50 (U.S.A.); \$9.00 (elsewhere).

I. C. GUNSALUS AND ROGER Y. STANIER, Edited by. "The Bacteria. A Treatise on Structure and Function." Volume III. "Biosynthesis." Academic Press, Inc., 111 Fifth Avenue, New York 3, N. Y. 1962. 718 pp. \$19.50.

G. INGRAM. "Methods of Organic Elemental Microanalysis." Reinhold Publishing Corporation, 430 Park Avenue, New York 22, N. Y. 1962. 511 pp. \$15.00.

M. KAUFMAN, Edited by. "Advances in PVC Compounding and Processing." Maclaren and Sons, Ltd., Maclaren House, 131 Great Suffolk Street, London, S.E. 1, England. 1962. 103 pp. 25s.

NORMAN KHARASCH, WALTER WOLF, AND ELAINE C. P. HARRISON, Compiled and Edited by. "Index to Reviews, Symposia Volumes and Monographs in Organic Chemistry for the Period 1940-1960." Pergamon Press Ltd., Headington Hill Hall, Oxford, England. 1962. 345 pp. 70s. net.

JOHN H. KNOX. "Gas Chromatography." John Wiley and Sons, Inc., 440 Park Avenue South, New York 16, N. Y. 1962. 126 pp. \$3.25.

IBERT MELLAN. "Polyhydric Alcohols." Spartan Books, 6411 Chillum Place, N. W., Washington 12, D. C. 1962. 208 pp. \$7.50.

SOCIÉTÉ DE CHIMIE PHYSIQUE. "Deoxyribonucleic Acid. Structure, Synthesis and Function. Proceeding of the 11th Annual Reunion of the Société de Chimie Physique, June, 1961." Pergamon Press Ltd., Headington Hill Hall, Oxford, England. 1962. 235 pp. \$10.00.

DR. H. STAGE UND DR. K. BOSE. "Verfahrenstechnik in Einzeldarstellungen." Band 13. "Die Belastungsverhältnisse in Füllkörpersäulen unter Destillationsbedingungen." Springer-Verlag, Heidelberger Platz 3, Berlin-Wilmersdorf, Germany. 1962. 116 pp. DM. 24.—.

DR. H. STREHLOW. "Fortschritte der Physikalischen Chemie." Band 7. "Magnetische Kernresonanz und Chemische Struktur." Dr. Dietrich Steinkopff Verlag, Saalbaustr. 12, Darmstadt, Germany. 1962. 179 pp. DM. 36.—.

M. J. WELLS, Edited by. "Spectroscopy. Report of the Conference Organized by the Hydrocarbon Research Group of the Institute of Petroleum and Held in London, March, 1962." Pergamon Press Ltd., Headington Hill Hall, Oxford, England. 1962. 305 pp. \$10.00.

TA-YOU WU AND TAKASHI OHMURA. "Quantum Theory of Scattering." Prentice-Hall, Inc., Englewood Cliffs, New Jersey. 1962. 495 pp. \$16.00.