

Book review

Computer Analysis of Thermochemical Data (CATCH Tables), (i) Halogen Compounds; (ii) Nitrogen Compounds, (iii) Phosphorus Compounds, (iv) Silicon Compounds; Edited by J.B. Pedley, School of Molecular Sciences, University of Sussex, Brighton BN 1 9 QJ, England, 1972.

There is as yet little experimental information on the thermochemistry of organometallic compounds, and much of what exists is contradictory. In this situation, the approach adopted in the CATCH Tables is likely to prove very helpful. These Tables are produced on a non-profit making basis at the University of Sussex, from data mainly selected by specialists at other institutions. Experimental data on heats of reaction are collated by a computer, which minimises the discrepancies and produces a table of molecular, ionic, and radical heats of formation which is as self-consistent as is currently possible. The computer treatment is such that these heats of formation can be revised rapidly, cheaply, and reliably as new experimental information becomes available. Because of this commendable emphasis on simplicity and low cost, the Tables are extremely terse, and contain no text discussing the criteria for selection or drawing attention to irreconcilable discrepancies. However, this information can be obtained by careful study of the lists of reactions, where literature references are given, as are the internal inconsistencies in the data.

Four sets of Tables have so far been produced, dealing with compounds of halogens, nitrogen, phosphorus, and silicon. The first three are confined to simple inorganic compounds, but the last-named contains a comprehensive collection of data on organic and inorganic silicon compounds. Forthcoming issues will include several of interest to readers of this Journal, notably those dealing with the compounds of boron, germanium, tin, lead and transition metals, and with organic free radicals and bond dissociation energies.

The cost of all four Tables already available is only £2.00 including postage (£2.40 outside the U.K.). If regular revision at this modest cost level can be achieved, the CATCH Tables should be immensely valuable, and should put many chemists in the debt of Dr. Pedley and his associates. Enquiries and orders should be addressed to Dr. Pedley.

*Department of Chemistry
The University
Leicester (Great Britain)*

IAIN M.T. DAVIDSON