

Book review

Chemistry of Pseudohalides, edited by A.M. Golub, H. Köhler, and V.V. Skopenko, Elsevier, Amsterdam etc., 1986, 479 pages, D. fl. 295.00. ISBN 0-444-99534-X

This addition (No. 21) to the series “Topics in Inorganic and General Chemistry”, is a revised version in English of a volume which appeared in German in 1979. The original version dealt with the literature up to the end of 1974, and this new one has been updated to take account of papers appearing up to the end of 1980. (There is no explanation of why the coverage of a book appearing in 1986 should extend only to 1980.)

There is a brief but informative Introduction (13 pages, 66 references) dealing with general aspects of the chemistry of the pseudohalogens and pseudohalides. Subsequent chapters are: Inorganic azide compounds (49 pages, 534 references); Cyanides (109 pages, 1074 references); Cyanates and fulminates (53 pages, 397 references); Thiocyanates (126 pages, 1630 references); Selenocyanate compounds (49 pages, 257 references); Tricyanomethides (21 pages, 77 references); and Dicyanamides (21 pages, 73 references). A final chapter (17 pages, 109 references) entitled (meaninglessly) “Comparative characterization of the pseudohalides”, is a useful brief summary of some features of pseudohalide chemistry such as “the acidity and structure of hydropseudohalic acids”; “ligand characteristics and donor activity of the pseudohalides”, and “further possibilities and tendencies in the chemistry of the pseudohalides.” There is a reasonable subject index.

The book presents a large amount of information (much of it referral to more detailed sources) fairly clearly, often in the form of tables and structural diagrams, and classifications of structural and behavioural characteristics are much used to enable the reader to form an overall impression. It does not make easy continuous reading, but it is both a useful outline of the field and, in spite of the absence of recent material, a valuable comprehensive reference work. With the increasing interest in organometallic pseudohalides it deserves a place in the libraries of all institutions concerned with organometallic chemistry. What is needed now is a supplement, rapidly produced, dealing with post-1980 literature.

I must again criticize a publisher for failing to have a native English-speaking editor put the final touches to a translation by a non-native translator. Although I did not see an ambiguity of meaning at any point at which it really mattered, a British or American editor could in a few hours have removed the obvious minor errors (e.g. the general use of “homologous” where “analogous” would normally be used, and the occasional printing of the symbol for iodine as J), and have improved (or deleted) such passages as the following, which consists of the first two sentences from a section on “Azides of the subgroup elements”: “The chemistry of the “binary” azides of the subgroup elements belongs to coordination chemistry, so that a separation does not appear favourable with respect to both structural chemistry

and the reactivity relations. Therefore it is possible to summarize the ways for preparation for “binary” and anionic azidometallates.” With a few days’ work he could have reduced the length of the account by perhaps 20%, and at the same time improved the clarity.

The book is rather poorly produced for the price (ca. US\$127 or £90 on the date of this review); it has the appearance of a volume printed in a Socialist-bloc country, as indeed it was (in the German Democratic Republic). A peculiar and unattractive feature, at least of the copy I received, is the narrowness of the outside margins (i.e. those on the left of the left-hand pages and the right of the right-hand pages), which range between about 3 and 8 mm.

*School of Chemistry and Molecular Sciences
University of Sussex, Brighton BN1 9QJ (Great Britain)*

COLIN EABORN