Book Review

The Chemistry of Inorganic Homo- and Heterocycles. Vol. 2. Edited by I. Haiduc and D. B. Sowerby, Academic Press, London, 1987, pp. 417–877, US$ 117.

As a continuation of the inorganic chemistry of ring systems of boron, aluminium, silicon, germanium and tin presented in Volume 1, the authors give in Volume 2 a survey of homo- and heterocycles of nitrogen, phosphorus, arsenic, antimony, bismuth, sulphur, and selenium. There are 14 chapters: Nitrogen Homocycles (I. Haiduc); Cyclophosphanes and Related Heterocycles (M. Baudler and K. Glinka); Phosphorus(III)–Nitrogen Heterocycles and Heterocyclophosph(III)azanes (R. Keat); Cyclophosphazenes and Heterocyclophosphazenes (C. W. Allen); Cyclophosph(V)azanes with Five- and Six-Coordinate Phosphorus (A. Schmidpeter); Phosphorus–Oxygen Heterocycles (A. Durif); Phosphorus–Sulphur and Phosphorus–Selenium Rings and Cages (D. W. Sowerby); Cycloarsanes (I. Haiduc and D. B. Sowerby); Arsenic–Nitrogen, –Oxygen, –Sulphur and –Selenium Heterocycles (D. B. Sowerby; Antimony and Bismuth Homocycles and Heterocycles (D. B. Sowerby), Sulphur Homocycles (R. Steudel); Selenium Homocycles and Sulphur–Selenium Heterocycles (R. Steudel and E.-M. Strauss); Sulphur–Nitrogen Heterocycles (T. Chivers); Sulphur–Oxygen, Selenium –Oxygen and Selenium–Nitrogen Heterocycles (I. Haiduc).

Each chapter contains a review of important developments in this field. In particular, they deal in detail with the synthesis, structure and bonding, the chemical and spectroscopic properties, and the reactivity of the various ring systems. The references appear to cover the literature through 1986 and are conveniently placed at the end of each chapter. The variety of journals represented indicates the growing international scope of this fascinating chemistry. At the end of each chapter readers find also a Bibliography Section which includes books and reviews of the surveyed topic. This Section adds greatly to the usefulness of the volume. In general, the chapters are well written, clearly organized, and extensively illustrated.

This Volume will be of particular interest not only to inorganic chemistry but also to chemists working in other fields of research, such as organometallic chemistry. The interaction of inorganic ring systems such as cyclophosphazenes with metals (also transition metals) has been also included.

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