

having led to a very rapid recent advance in knowledge. The chapter by Rzaev is especially valuable because of the inclusion of so much material from sources in the U.S.S.R.

The volume is a worthy addition to a very good series.

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*Gmelin handbook of inorganic chemistry*, 8th Edition, *Sc, Y, La-Lu rare earth elements, Part C4b. Data on individual chlorides*, G. Czack, I. Flachsbarth, H. Hein, E. Koch, I. Kreuzbichler, P. Kuhn, H. Lehl, and U. Vetter, volume authors, H. Bergmann, chief editor, system number 39, Gmelin Institut für Anorganische Chemie der Max-Planck-Gesellschaft zur Förderung der Wissenschaften and Springer-Verlag, Berlin/Heidelberg/New York, 1982, x + 324 pages, DM 876.

This volume, together with its companion, C4a (*J. Organomet. Chem.*, 235 (1982) C25), is concerned with Sc, Y, and the rare earth chlorides and appropriate metal chloride systems. Whereas Volume C4a was devoted largely to comparative data, the volume under review treats individual chlorides and chloride systems.

Sections on separate chlorides are arranged according to the Periodic Table and deal mainly with the preparation, properties, and chemical reactions of the various metal chlorides starting with the lowest oxidation states. There is much emphasis on phase diagrams and solutions. Molecules and ions in the gas phase, or as matrix-isolated species, were discussed in Volume C4a.

Both the present volume and its companion C4a, are published in English and have all the merits normally found in books belonging to the Gmelin series. The literature is covered to mid-1981.

There is scarcely any organometallic chemistry to be found; this, no doubt, will feature in later volumes. However, the anhydrous metal(III) chlorides are key starting materials in the rapidly developing field of organolanthanide chemistry and hence the volumes will be of interest to some readers of this Journal.

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