

may also be true in Siberia. However, the examples cited for Europe, Africa, and Australasia are less convincingly continuous. These belts are referred to a remarkable tectonospheric model of the Earth for which it is postulated that there was a primordial Earth of radius about 5400 km, differentiated and fractured into octants by three mutually orthogonal planes. Movement on these planes is supposed to have occurred before an overlying tectonosphere consisting of 'Earth prime' (planetesimal material?) accreted on to the primordial Earth to form a layer about 1000 km thick. The mineralized belts are explained on this model as projections, through the tectonosphere, of the primordial fracture system.

It is claimed that proprietary methods based on the tectonospheric model have enjoyed some success in prospecting. It is difficult, however, to see how these can be based on anything other than the broad concept of metallogenic zones, a concept that, since it was enthusiastically sponsored by the All-Union Geological Institute in Russia two or three decades ago, has been an accepted, though only broadly helpful, part of the background of the search for new ore deposits. The tectonospheric model of the author offers such serious difficulties in the present state of ideas about the physical nature of the mantle that it does not appear likely to win wide acceptance.

KINGSLEY DUNHAM

RÖSLER (H. J.) and LANGE (H.). *Geochemical tables* (transl. from German by H. Liebscher). Amsterdam, London, and New York (Elsevier Publ. Co.), 1972. 468 pp., 136 figs., 216 tables. Price Dfl. 80.00 (\$32.00).

Originally compiled for students at the Freiberg Mining Academy, the translation and wider availability of this collection of fundamental data and references will be welcomed, though there is some overlap with volume I of Wedepohl's *Handbook of Geochemistry* [M.M. 38-116]. Data on fundamental chemical and physical concepts (structure of atomic nuclei, isotopes, ionization potential, electronegativity, thermodynamics, diadochy, redox potential, etc.) are tabulated and discussed, with references. For geochemical methods, however, each technique is merely listed but given an extensive bibliography. The major and trace-element constituents of eight standard rocks are tabulated, data for four of the rocks (Zentrales geologisches Institut, Berlin) being hitherto unpublished values, and those for G-I and W-I being quoted from Fleischer (1965). In this chapter in particular there is evidence that the references are not up to date, even allowing for one- or two-year delay in production: the bibliography on the section on XRF and Electron microprobe analysis, for example, has only three references to work published later than 1967 in this rapidly developing field; DTA references stop at 1966. Other chapters include those on the representation and mathematical processing of geochemical data, distribution of the elements in meteorites and in the Earth, on the geochemistry of magmatic, metamorphic, and sedimentary processes, and of the hydrosphere, atmosphere, and biosphere. The brief chapter on geochemical cycles and geochemistry of individual elements (3 pages) has eight pages of references to the geochemistry of individual elements (mainly to older classical papers but with some modern works). An important chapter on fields

of investigation in applied geochemistry covers geochemical prospecting, the geochemistry of mineral deposits, isotope geochemistry (including age determination), and the geochemistry of individual minerals, each section having a full bibliography. A final chapter lists various units of measurement and their abbreviations.

A minor but infuriating editorial failure in this book is the inclusion of references in the captions to figures and in tables that are not to be found in the bibliographies. The choice of literature is distinctly East European but, with fore-knowledge of this, the book may provide a way in to that part of the literature of geochemistry not adequately appreciated in the West. For more modern geochemical data the inquirer could do worse than consult recent volumes of *Chemical Abstracts* or *Mineralogical Abstracts*.

R. A. H.

PIES (W.) and WEISS (A.). *Crystal structure data of inorganic compounds. Part a: Key elements F, Cl, Br, I (VII. Main group) halides and complex halides* (Landolt-Börnstein: Numeral Data and Functional Relationships in Science and Technology. New Series. Group III: Crystal and solid state physics, vol. 7). Berlin, Heidelberg, & New York (Springer-Verlag), 1974. xxxii+647 pp. Price DM 436.00 (\$178.80).

This is a very old-established and respected encyclopedic collection of data. It has many good points; for example, polymorphs are grouped together and transformation temperatures are quoted, while there are always sufficient details to enable the reader to see whether he wishes to go to any source publication. However, references are not given in this volume, and the reader has to wait for the publication of Part g for these. Similarly, there is no index in this volume and for this the reader has to wait for Part h.

This volume is beautifully printed by traditional type-setting, which is now, unfortunately, very expensive in time, labour, and money. It would be expected that such data would now be handled by computer and directly printed out.

In making such data available there is repetition of effort with other publications. In the Preface the following sentence occurs, 'This volume like all other volumes of Landolt-Börnstein has been published without financial support from any outside source.' It would seem natural to suggest that this enormous mass of data would best be published only once by international co-operation and with an adequate subsidy.

N. F. M. H.

MACKENZIE (W. S.) and ZUSSMAN (J.), Editors. *The feldspars. Proceedings of a NATO Advanced Study Institute Manchester 11-21 July 1972*. Manchester (Manchester Univ. Press) and New York (Crane, Russell, & Co., Inc.), 1974. xii+718 pp., 262 figs. Price £9.00.

The proceedings of the first NATO Advanced Study Institute on Feldspars, held in Oslo in 1962 under the direction of Professor T. F. W. Barth, were published in a special issue of *Norsk Geologisk Tidsskrift*. Here in this volume are presented the