

BOOK REVIEWS

HINTZE (CARL) [1851–1916]. *Handbuch der Mineralogie*. CHUDOBA (Karl F.). *Ergänzungsband III: Neue Mineralien und Neue Mineralnamen (mit Nachträgen, Richtigstellungen und Ergänzungen)*. Berlin (Walter de Gruyter & Co.), 1965–67, Lief. 1–4, pp. vii + 1–515.

Since the last review relating to Chudoba's additions to Hintze's 'Handbuch der Mineralogie' (M. H. Hey, *Min. Mag.* 1959, vol. 32, p. 259), *Ergänzungsband II* and index has been completed. *Erg. III* follows the same general plan, with Teil I (Lief. 1–3) containing full descriptions of new minerals and new mineral names, together with new data for established minerals. Lief. 4 contains Teil II–IV; Teil II is a most useful collation of data for unnamed species arranged in chemical classes; Teil III is a listing of newly defined (as opposed to newly described) and redefined species, with the new data; and Teil IV contains details of discredited species.

There is no indication that *Erg. III* will receive more than an index to complete it, and Chudoba has again put us in his debt for an admirably up-to-date summary of recent work in systematic mineralogy that saves the labour of digging steadily backwards through the literature.

P. G. EMBREY

BURRI (C.), PARKER (R. L.), and WENK (E.). *Die optische Orientierung der Plagioklase*. Birkhäuser Verlag, Basel and Stuttgart, 1967. 334 pp., 61 text figs., and 17 plates. Price 78 Swiss francs.

In this volume the authors (with the assistance of H. R. Wenk) have compiled the most complete description of the complex optical properties of the plagioclase feldspars that is presently available, and for this service they deserve the gratitude of all who have cause to study this ubiquitous mineral group.

The book is divided into four sections. The first (by Burri) deals with the historical development of the subject, ranging from the earliest optical descriptions up to the work of the last decade by Tertsch, van der Kaaden, Burri, Marfunin, and Kano, and also includes a systematic exposition of the intricacies of plagioclase twinning. The second part (Methods, by Parker) sets out the angles used in plagioclase determination by Federov, Becke, and Goldschmidt together with various

Euler angles; there is a description (by H. R. Wenk) of FORTRAN programmes for computing the angles. In the third part on optical migration curves (by E. Wenk), there is a description and commentary on the data used in the preparation of the seventeen plates of optical diagrams, which contain the essence of this book. These individual plates, most elegantly drawn and provided with captions in German, French, and English, are contained in a cover separate from the book to facilitate laboratory use. In the last part Parker and H. R. Wenk provide all the numerical data, which could conceivably be of use in compiling plagioclase optical diagrams. The book also includes extensive references and is well indexed.

In brief this volume must find a place in the bookshelves of all mineralogist-petrologists who intend to make more than a cursory optical examination of plagioclase, not least because of the plates, which contain the essential data succinctly presented for non-German readers.

P. GAY

BOLDT (J. R., JR.). *The winning of nickel*. Methuen and Co., Ltd., 1967, xiv+486 pp., 55 figs.+frontispiece. Price: £5.

This book, published under the auspices of the International Nickel Corporation, is a comprehensive review of the nickel mining industry. It was prepared by Joseph Boldt Jr. with the help of a panel of consultants, under the editorial control of Paul Queneau. The arrangement of the book is in four sections, the first on geology, the second on mining, and the last two on the extraction of sulphide and oxide ores. The text is supported by eight pages of references. The information is extremely well presented and abundantly illustrated with excellently reproduced figures and photographs, some in colour. Reproductions of woodcuts from *De Re Metallica* and extracts from the Hoover translation of that work are interspersed with the text. It is, however, surprising that with all the care that has obviously gone into editing none of the ten locality maps bears any figure number.

The section on geology is unfortunately the shortest. It describes the various nickel minerals, the two basic types of deposit, and methods for their exploration. There then follows descriptions of a selection of the better known nickel deposits of the world. More detailed information could profitably have been incorporated into this section; in particular, the allotment of only a page and a half for the genesis of sulphide ores is disappointing.