

The first changes in the cordierite section which struck me were that 'nH<sub>2</sub>O' is now part of the molecular formula, and that the optic axial plane is now parallel to (010) whereas in 1966 it was parallel to (100). No explanation for this mysterious transposition is offered: demonstrators pinned to the wall by puzzled students will find that there is an explanation, of sorts, in Vol 1B of the multi-volume DHZ. Although cordierite is placed in the book with ring silicates, the authors point out that it is really a framework silicate, as its optical properties, imply. The new structure drawing (from Cohen *et al.*, 1977) is much easier to understand than the one given in the first edition. As for many mineral species new analyses are given, with one carried forward from the earlier edition, and the drawings of complex twinning are much clearer. The section on chemistry is considerably expanded, with a *P-T* diagram for KMAH and several more reactions involving cordierite discussed. Like most other sections there are more references, and these have in some cases a review character.

The book has three appendices. The first two are from the first edition: examples of how chemical formulae can be calculated from mineral analyses, and a table of molecular weights. A new appendix explains how molecular percentages of end member components in solid solutions can be calculated from chemical analyses. A final addition, inside the back cover, is a coloured Michel-Levy birefringence chart.

The new edition represents an almost complete rewrite of its predecessor. Connections with the first edition are little more than a ghost stratigraphy and the authors have done a magnificent job of revising and updating all the important minerals. While it is possible to quibble about details there is no doubt at all that the new edition maintains the 'student' DHZ as the most authoritative compact mineralogy reference work for undergraduate and postgraduate use. The substantial changes are all improvements, and perhaps the only aspect of modern mineralogy conspicuously absent is any treatment of mineral thermodynamics. The price is realistic and (for once) not so great that students will find it out of reach. For knowledge content and applications this is probably one of the best value Earth Science books around. The authors deserve our heartfelt thanks for the immense amount of work that has gone into producing it and its multi-volume parents. It is certain to be a familiar sight on laboratory benches for many years to come, and deservedly so.

I. PARSONS

Clarke, D. B. *Granitoid rocks*. London (Chapman and Hall), 1992. 283 pp. Price £24.95.

The literature on granitic rocks is now so vast, and the techniques used to study them so varied, that it is difficult even for a specialist to see the wood for the trees. The author of this book has succeeded remarkably well in covering the present state of granitology in such a concise review, or, to use his own analogy, in distilling a batholithic amount of information into a book of aplitic proportions.

His approach has been to take each type or method of investigation—field, mineralogical, geochemical, isotopic—and describe what information it has provided or could provide on the origin of granitic rocks. Every chapter is full of interest, and is supported by a lengthy and up to date bibliography. The first chapter sets out the many ways of classifying granitic rocks and discussed the merits and limitations of the alphabetic (S and I) classification. This is followed by a chapter on field relations which is somewhat less satisfactory than the rest of the book; it does not say enough about the composite nature of granitic intrusions and the difference between plutons and batholiths. There are excellent chapters on mineralogy, geochemistry and experimental petrology which are a mine of information and ideas. There is a welcome discussion on economic geology, which is a useful reminder to igneous petrologists that hydrothermal processes are an integral part of the granite story. Finally there are case studies of some contrasting granitic suites, and a very valuable bibliography.

A great virtue of this book is its consistency of purpose. It is written from beginning to end as a guide to the new researcher, setting out what is known already and what can be achieved. It is not written primarily for undergraduate students, nor is it bogged down in the sort of detail that might be found in a research monograph. It is consistently well written, its brevity and lucidity making a real contribution to the understanding of a complex subject. It comes as close as is possible to providing a complete state-of-the-art review of granite studies. For both new research students and experienced specialists alike this book is excellent value for money.

A. HALL

Mason, B. *Victor Moritz Goldschmidt: Father of Modern Geochemistry*. Geochemical Society Special Publication no. 4, 184 pp 1992.

A fascinating biography of the most influential scientist in the sphere of geochemistry. It chron-