

The reviewer has no hesitation in recommending this book to anyone who is interested in its highly specialized subject.

B. W. ANDERSON

Atherton (M. P.) and Tarney (J.), Editors. *Origin of Granite Batholiths: Geochemical Evidence*. Orpington, Kent (Shiva Publ. Ltd., 9 Clareville Road, Orpington, Kent BR5 1RU), 1979. viii + 148 pp., 57 figs. Price £4.50 (\$9.00), + 50p (\$1.00) per copy for postage outside the UK.

This book is comprised of eleven papers which deal mainly with geochemical data pertinent to the origin of granite (s.l.) batholiths and chemically evolved volcanics erupted at destructive plate margins. The papers were originally presented at a one-day meeting of the Geochemical Group of the Mineralogical Society held at Liverpool in May 1979, and it is much to the credit of the editors and the publishers (Shiva Publishing Ltd.) that the book was published (in paperback form) before the end of 1979. This must be a record!

The eleven papers include reviews of published and unpublished data; however, much of the new data is presented in diagrammatic form only and the authors indicate that it will be published elsewhere. The references for all eleven papers are collected together at the end of the column, a feature which has presumably assisted in rapid publication.

The first paper in the book by Pitcher briefly discusses the over-all volcanic association of batholiths in different tectonic environments. Three of the subsequent papers are concerned with chemical aspects of Andean batholiths and volcanics. Atherton, Court, Sanderson, and Taylor review the trace element geochemistry of the Peruvian coastal batholith and Thorpe and Francis discuss the petrogenetic relationships of Andean intrusive and volcanic associations, and in particular address the possibility of crustal contamination during their development. Tarney and Saunders describe the trace element geochemistry of some Andean plutons in Antarctica and draw comparisons with Proterozoic and Archaean crustal rocks in E. Greenland and Scotland.

Three papers focus on the Caledonian granites of Britain and Ireland. Stephens and Halliday deal with the major element and Sr isotope variations in the Galloway pluton and consider the role of crustal contamination in its petrogenesis. Pankhurst reviews Sr and Pb isotope results and other trace element abundance data for the Foyers and Strontian intrusions and discusses possible models for their petrogenesis. The emplacement of the Caledonian Ardara pluton is dealt with by Holder.

The remaining papers include a topical and general review of Sr and Nd isotope data of volcanics formed of destructive plate margins by Hawkesworth and an account of I- and S-type granites (as defined by Chappel and White) occurring in the tin belt plate margin environment of SE Asia. Brown considers the possible changes in batholith emplacement through time in relation to proposed models of continental growth. Lastly preliminary sulphur isotope data are presented for well-defined I- and S-type granites by Coleman.

The book is by no means a complete discussion of geochemical evidence for the origin of granite batholiths, but then it was presumably never intended to be so. However, it is a timely review of some of the progress that is being made by geochemists in understanding the petrogenesis of granite batholiths. Its value is much enhanced by the speedy publication and it is likely to be a valuable reference book for undergraduates, graduates and researchers alike. At a price of £4.50, many will consider it worthwhile purchasing the book.

R. K. O'NIONS

Levinson (A. A.). *Introduction to Exploration Geochemistry*: second edition (with chapters by R. B. McCammon and B. Hitchon). Wilmette, Illinois (Appl. Publishing Ltd.), 1980. xxiv + 924 pp., 267 figs., 1 coloured pl. Price \$35.00 (Student price \$22.00).

Readership spans experienced exploration geochemists as well as the students, geologists, scientists in allied fields, and prospectors towards whose requirements the author directed his attention. The production of a second edition is fully justified by the rapid advances that have been made since the writing of the first, and the author has taken the opportunity of incorporating improvements suggested in reviews of the earlier book.

The format adopted for the new work is unorthodox; the first edition has been retained unaltered save for the insertion of a list of corrections, and the new material added in the form of an addendum of some 310 pages entitled 'The 1980 Supplement'. It is understood that this will be available separately. Chapter titles in the addendum are identical with those in the first edition while chapter numbers, figures, and tables are distinguished with an added A. Page numbers of the corresponding entry in the first edition are given alongside both second and third order headings, facilitating reference back to the earlier material. If additional discussion is unjustified, the heading is followed by 'No additional comment'; similarly,