

## BOOK REVIEWS

Pierrot, R. M. and Cesbron, F. P. Chemical and determinative tables of mineralogy—silicates. Orléans (Bureau de Recherches Géologiques et Minières), 1989. xii + 308 pp. Hardback £77.00.

The first volume which dealt with non-silicates has been in the microprobe laboratory at The Natural History Museum, London, for about eight years now and is well and truly 'thumbed' and in need of rebinding, an indication both of its usefulness and, perhaps, a less than robust spine. This second volume will be used more, rather than less, I imagine.

The layout is similar to the earlier volume, tabulated, and starting with silicates of low atomic number elements from lithium and beryllium to high atomic number elements such as bismuth, thorium, given in terms of oxide weight per cent. A compositional match is obtained by taking the major elements determined by microprobe or other analytical technique and searching the appropriate tables, a relatively rapid procedure. Obviously, some minerals will be more easily identified than others; the amphibole nomenclature for instance is that of Leake, but edenite is not listed as an amphibole in the main tables although it is listed as such later on. A brief, but not particularly up to date bibliography provides an entry into the literature in most cases.

In any work such as this, errors will creep in and it was unfortunate that the first check was on the data for marialite,  $\text{Na}_4\text{Al}_3\text{Si}_9\text{O}_{24}\text{Cl}$ , where the calculated weight per cent data are incorrect.

Nonetheless, recommended.

C. J. STANLEY

Leelanandam, C., Ed. *Alkaline Rocks*. Bangalore (Geological Society of India: Memoir 15), 1990. viii + 312 pp., 17 maps. Price Rs.300 (\$45.00).

This Geological Society of India Memoir is largely concerned with Indian occurrences of these rocks. Four chapters only (of fourteen) cover non-Indian localities, of which two are on problems of peralkaline rocks (K. Currie) and carbonatites and fenites (M. J. Le Bas). The basis of choice of contributions on non-Indian rocks is

not clear, unless to widen the readership outside the sub-continent.

Indian contributions can be grouped regionally. Two are on alkaline rocks of Rajasthan and of Gujarat and Maharashtra in the north west. Two are on alkaline intrusions in east and south peninsular India, of which that by Ratnaker and Leelanandam is a particularly comprehensive survey of all alkaline intrusions into Proterozoic and granulite terrains. All these southern intrusions appear to be deep-fault controlled. A third group of contributions discusses alkaline intrusions in the Eastern Ghats mobile belt. Here the plutons belong to two periods of magmatism in the Proterozoic: 1300 m.y. (alkaline) and 1000 m.y. (peralkaline). The Eastern Ghats also contains three belts of alkaline gneissic rocks which occur between granite gneisses and granulites. Alkaline gneisses are, as Madhavan and Khurran observe, highly problematical in origin, but they consider their data support a mantle-magmatic derivation. Each chapter contains field, petrographic and geochemical data, and the volume provides a useful guide to the great number of alkaline rock occurrences in India.

G. D. BORLEY

Yardley, B. W. D., MacKenzie, W. S., and Guilford, C. *Atlas of metamorphic rocks and their textures*. Harlow, Essex (Longman) and New York (Wiley), 1990, 120 pages, 113 colour plates, 2 line figs. Price £15.95.

It is a pleasure to welcome the publication of an atlas of metamorphic rocks in a series which has become an indispensable source of reference for petrologists. The quality of the plates is of the high standard set by the previous atlases, many containing three separate illustrations; in plane polarised light, between crossed polars and at higher magnification, emphasising a feature of special interest. The price is such that students, as well as research workers and laboratories, will be able to afford the book.

The selection of specimens to illustrate is particularly difficult for metamorphic rocks, which include all the compositional types found among their sedimentary and igneous precursors, as well as the mineralogical and textural changes