

Macpherson, H. G. *Agates*. London (Natural History Museum) and Edinburgh (National Museums of Scotland), 1989. 72 pp., 3 maps, 160 colour photos. Price £4.95.

This beautifully illustrated book (the first about British agates) has been produced to introduce these natural semi-precious stones to people unaware of them. The first section defines and describes agates, outlines their distribution and occurrence in the British Isles, and presents a theory of agate formation. The middle section deals in detail with representative agates, especially those from the Old Red Sandstone lavas of Scotland, and a list of agate localities is given. The final section deals with collecting, cutting and polishing agates; their use in jewellery; and agates from elsewhere in the world.

R. A. HOWIE

Miles, J. A. *Illustrated Glossary of Petroleum Geochemistry*. Oxford (Clarendon Press), 1989. ix + 137 pp. Price £17.50.

The author, in her preface, argues from experience that there are three main sources of confusion for explorationists (mostly geologists, geophysicists and engineers) attempting to make sense of the literature of petroleum geochemistry. These are 'the nomenclature of chemical compounds and the "chemical" side of geochemistry; the multitude of synonyms for a small number of entities and the individual approach that each company adopts to the teaching of geochemistry' (most companies having their own, preferred nomenclature). There has also been a marked evolution of nomenclature with time in recent decades, as new techniques for the analysis of oils and organic residues have been developed and rapidly applied.

In responding to this challenge, Jennifer Miles has produced a short text divided into two sections. The first of these, only some 12 pages in length, provides summary tables covering topics such as correlation of kerogen type nomenclature, maturation parameters for different kinds of source rocks and gas characterization. The bulk of the text is then devoted to a glossary which pays particular attention to synonyms. Terms are not only defined but their relevance to petroleum geology is explained. In many cases an appropriate diagram and/or literature reference is given.

Entries range from the purely chemical (molecular structures for important compounds) through the more practical (descriptions of commonly used analytical procedures) to historical terminology often derived from coal petrology

(but still in common use). Occasionally, space is found for concise summaries of important processes which influence the composition of organic matter. The entry under *pristine* is a good example.

When I was asked to review this volume, I was not at all sure that I should do so since the book is primarily aimed at industry, not educators. My lack of qualification extends to a sketchy background in organic chemistry which prevents pronouncements on the accuracy or general 'correctness' of entries in the glossary. Having read it, however, I am convinced that it will be received well by all those struggling to make sense of an immensely important body of information which has relevance far beyond the immediate confines of the petroleum industry. I shall certainly recommend it to both undergraduates and postgraduates and I personally find it much more useful than more general works of this kind, of which there are several.

C. CURTIS

Santosh, M., ed. *Fluid Inclusions*. Bangalore (Geological Society of India: Memoir 11), 1988. x + 158 pp. Price Rs 250.

The stated aim of this publication is to highlight some current research trends and recent theoretical and analytical advances in fluid inclusion studies, and with this in mind the editor has collected thirteen invited papers [M.A. 90M/0562-0574] from some of the leading researchers in these fields. The topics covered are diverse, and include fluid inclusions in metamorphic and igneous environments, their application in mineral exploration, and their chemical analysis. There are several papers on the subject of high-grade metamorphism, presumably because of the editor's main research interests. The papers are of variable quality, but mostly make interesting reading. The book is reasonably well-produced, although several of the photographs are of poor quality.

This text contains some good summaries and helpful updates on the application of fluid inclusion studies in several branches of geology, and as such represents a useful addition to the increasing literature on fluid inclusions.

D. H. M. ALDERTON

Birch, W. D., Ed. *Zeolites of Victoria*. Melbourne (Mineralogical Society of Victoria: Special Publication 2), 1989. xii + 110 pp., 217 photos (36 in colour), 8 sketch-maps. Price \$22.00 Aus.

Zeolites have been known in this part of Australia for over a hundred years but the recent growth

of interest in mineral collecting combined with the development of SEM and electron microprobe techniques has recently led to the recognition and positive identification of 18 zeolite species in Victoria. In this book the various regions of the State are covered in eight chapters, in which the individual zeolite occurrences are listed, accompanied in most cases by SEM photographs and details of associated minerals. Most

of the occurrences are in Tertiary–Pleistocene basalts but a few occurrences from greenstones and granites are also reported. In many basalt localities the zeolites are in cavities lined with montmorillonite. In the final chapter electron microprobe analyses are given for some 130 zeolites. There is an appendix on the identification of the Victorian fibrous zeolites.

R. A. HOWIE