

## BOOK REVIEWS

BRINDLEY G.W. & BROWN G. (Editors). *Crystal Structures of Clay Minerals and their X-ray Identification*. Mineralogical Society, 41 Queen's Gate, London SW7 5HR, 1980. 495 pp. Price £28.00 (\$70.00) including postage.

This is the third publication by the Mineralogical Society of this monograph. However, since the preceding edition (1961) the subject has developed so considerably that the editors have chosen to present their work in a completely revised form and with a new title. In addition, they have deliberately limited their field of inquiry to the characterization of clay minerals by X-ray diffraction, considering that this technique constitutes a basic tool for the study of minerals, and that the other methods of structural characterization which have emerged over the last twenty years have already been covered in other monographs.

The book is divided into two parts: the first four chapters are devoted to the fundamentals of the structures of clay minerals, whereas the last three deal with the practical problem of the identification of clay minerals by X-ray diffraction. The first chapter (by S. W. Bailey) presents the structures of layer silicates, with emphasis on regular structures, while the second (by G. W. Brindley) treats problems of order-disorder in clay mineral structures. Chapter III (by D. M. C. MacEwan and M. J. Wilson) describes the intercalation complexes of clay minerals, and Chapter IV (by R. C. Reynolds) develops the theory of interstratification and gives a brief account of the interpretation of experimental diagrams. Chapters V and VII describe the procedures for identification qualitatively (Chapter V, by G. Brown and G. W. Brindley) and quantitatively (Chapter VII, by G. W. Brindley), while Chapter VI (by G. W. Brindley) deals with minerals associated with clays.

This book makes very worthwhile reading. The authors have endeavoured to trace the historical progress of knowledge in the different areas described, and to point out approaches which appear to offer solutions to the problems posed by the crystallographic study of clays. I was pleased to find tables comparing structural parameters of minerals obtained from different sources, accompanied by discussions on their relative accuracy, as these are so helpful in forming a precise idea about our present structural knowledge of certain mineral groups, such as the micas.

The bibliography is complete to 1979 and the indexes have been well compiled (only a few key terms such as fireclay and stevensite have been omitted).

As a whole this is an excellent work which should be one of the basic texts in any collection concerning clays, clay mineralogy and soil science.

C. TCHOUBAR

EMBREY P.G. & FULLER J.P. (Editors). *A Manual of New Mineral Names 1892–1978*. British Museum (Nat. History), London, and Oxford University Press, Oxford, 1980. ix + 467 pp, Price £24.00.

It is remarkable that since the first 'List' was published in *Miner. Mag.* in 1897, only two people have been responsible for compiling and publishing the periodic 'Lists of New