

BOOK REVIEWS

JEFFERY (P. G.). *Chemical methods of rock analysis*. Oxford and New York (Pergamon Press), 1970. xvi+507 pp., 103 figs., 1 pl. Price £7.00.

Although the classic texts of Washington and of Hillebrand have long been outdated, they contain such fundamental material that most analysts continue to use them for reference purposes. But after a gap of several decades without the appearance of any new analytical texts specifically devoted to rock analysis, the need for a modern approach would appear to have inspired several authors and/or publishers at the same time. Thus within two or three years we have had the books of Maxwell (M.M. 37-858), Volborth (M.M. 37-858), Energlyn and Brealey (M.M. 38-776), and Jeffery. Fortunately, the approach in these texts is different. The present work opens with chapters on the composition of rock material, sample preparation, sample decomposition, the classical scheme for the analysis of silicate rocks, the rapid analysis of silicate rocks, and some statistical considerations, and these are followed by chapters on individual elements or groups of elements. This approach inevitably leads to some duplication and one occasionally feels that although the determination of a particular element is adequately dealt with the problems of possible interference from other elements are insufficiently stressed. With the development of spectrophotometric and atomic absorption methods many elements are now determined directly, and consequently the errors for individual elements are no longer accumulative. The direct determination of alumina, rather than its estimation by difference, is a major step forward. In this book we benefit from the experience of a practising analyst who has specialized in the analytical problems of silicate rocks and their individual minerals. Although alternative methods have been described for many of the 60 elements included, some selection of procedures has been made and it is for such informed instruction and practical details that this book can be recommended to geochemists, petrologists, and others concerned with the analytical chemistry of silicates and silicate rocks.

R. A. HOWIE

TASMANIA DEPARTMENT OF MINES. *Catalogue of the Minerals of Tasmania* (revised and amended 1969). Geol. Survey Record No. 9, 1970. 110 pp., 13 plates (5 colour, 8 black and white), Australian \$1.50.

W. F. Petterd's 1910 catalogue, of which this is a revision, contained 356 entries in alphabetical order, which have been retained. 'These have been evaluated and are either accepted, invalidated or classed as being of doubtful validity. As a result 46 of the 1910 listings have been invalidated, at least 20 are regarded as being of doubtful validity and 73 new entries have been made. A number of minerals have had to be carried forward into this text without an extensive check since no specimens were available in the Petterd Collection of the Tasmanian Museum or elsewhere and there