the whole volume but is in fact more concerned with Sir Kingsley's own geological experiences over several decades. Actually the 'real world' alludes to the 'down-to-earth, field-based quality' of geology rather than to any conflict between academic and practising geologists.

The subject matter of the papers is extremely varied and most topics in geology are covered. However, almost half of the contributions are concerned with mineral deposits and exploration methods. I found several of the papers extremely interesting; for instance I can commend the photographs of a laboratory simulation of the opening of the Red Sea by Girdler, and the interesting discussion on more precise time-scales by House.

Publications such as this provide authors with a forum for synthesising data and developing new theories. Thus there are several 'reviews', 'views', 'thoughts' and 'reflections'. Some of these are novel but some appear to be a reworking of previously published material.

The coverage of this book is probably too broad to warrant purchase by individuals. I can only recommend that everyone looks at the full list of contents to see if there is anything directly relevant to their own interests.

H. M. ALDERTON

O'Donoghue, M. *The Literature of Mineralogy*. London (The British Library, Science Reference and Information Service), 1986. ii + 85 pp. Price £12, soft cover.

This brief guide to mineralogical literature is one of a range of bibliographies, guides, and newsletters, published by the British Library.

Given its unqualified title, and making due allowance for its slimness, one might reasonably expect greater breadth of coverage in a publication from so prestigious an institution; and one may presume that its oddly parochial flavour stems from editorial guidelines, rather than the author's choice. No general reference library can reasonably cover a particular group of related subjects as fully as can a more narrowly specialized library; but a literature guide, as distinct from a short catalogue, ought properly to do more than reflect, for the most part, the forgivable limitations of its parent.

Information is contained in the sixteen classified sections, plus a short list of useful addresses, that are sandwiched between the introduction and an index. Section headings include: 'Major reference monographs'; 'Abstracts'; 'Databases'; 'General comprehensive surveys'; 'Regional mineralogy'; and so on. In each section there are general comments, and selected titles (usually with accession number and classmark) are accompanied by a few words indicating their content or coverage.

Examples of limitation are the absence of the Russian, multi-volume *Mineralii*, edited by Chukrov, from the major monographs; of *Klockmann's Lehrbuch der Mineralogie* (16th edn., 1978), by Ramdohr and Strunz, from the general comprehensive surveys; and of numerous major works, such as Lacroix's *Minéralogie de la France et de ses colonies*, from a regional mineralogy section that over-emphasizes North America. This section would have benefitted from a reference to the still-invaluable 'Catalogue of topographical mineralogies and regional bibliographies', by L. J. Spencer (*Mineral. Mag.* 1948, **28,** 303–32).

We learn (twice, pp. 9, 66) that Chester's *A dictionary of the names of minerals* (1896) is *not* held by the British Library, without mention that it *is* held in the Mineralogy Library of the BM(NH). Goldschmidt's *Atlas der Krystallformen* is not owned, although nine of its plates are reproduced to pad out the page total to ninety-six; and a reference to its presence in the Mineralogy Library, BM(NH), is wrongly given (p. 29) as the Palaeontology Library. On this same page we also learn—to our surprise—that some works on crystallography are held by the British Library in 'Humanities and Social Sciences'.

In my opinion, this guide is grossly overpriced. In London alone, there are several excellent libraries—in addition to the British Library proper—to which outside readers are admitted; improved reference to their existence and holdings would greatly increase the usefulness of the next edition.

P. G. EMBREY

Hodgson, A. A. *Scientific Advances in Asbestos 1967 to 1985*. Crowthorne, Berkshire (Anjalena Publications), 1986. 186 pp., 15 figs. Price £56·00.

The two broad categories of commercial asbestos, amphibole and chrysotile, have attracted great attention in the past few decades. The asbestos industry has sought a better understanding of chemical and physical properties in order to improve the manufacture of asbestos-containing products. Over the same period, because of increased alarm over serious health hazards of asbestos dusts there has been more interest in medical and environmental aspects, and a tendency to search for non-asbestos material to substitute in many of its uses.

Reports of research on asbestos are scattered throughout the scientific literature, in Earth-science, industrial, chemical and other journals. In addition, since 1967 there have been four important

international conferences on the physics, chemistry and geology of asbestos, the proceedings of which received only limited circulation. Dr. Hodgson has therefore performed a very great service in bringing all this material together under one cover and moreover in arranging it in such a logical and useful fashion.

Chapters 1 and 2 deal with 'microstructures', the fine detail of crystal structures, cation ordering and defects revealed by X-ray diffraction, electron microscopy and diffraction, and spectroscopy. Chapters 3 and 4 are about laboratory synthesis of asbestos from the melt and hydrothermally, and chemical properties including solubilities. The following two chapters are also chemical, dealing respectively with thermal decomposition and with surface chemistry, and the next is on physical properties including mechanical strength and magnetic and electrical behaviour.

The book concludes with chapters on geology and on environmental aspects. In the former, for each variety of asbestos there is discussion of likely processes of formation, and there are also regional sub-headings so that a good account is given of each of the major and several minor asbestos deposits throughout the world. Discussion of asbestos and the environment includes the vexed question of how to define a 'fibre', most important when fibre counts are the basis of hazard estimation. Specifically medical matters such as epidemiology, *in vitro* and *in vivo* laboratory studies are excluded from the scope of this book.

The author's hope, expressed in his introduction, is that his book will be of interest and use to those in the medical, academic and industrial fields and I am sure that this hope will be realised. He also hopes to interest non-scientific readers, but I feel that they would find the text too detailed and esoteric.

J. ZUSSMAN

Cole, G. H. A. *Inside a Planet*. Hull (Hull University Press) 1986. xiv + 154 pp., 11 figs., 9 tables. Price £7·95.

The author discusses in a theoretical yet non-mathematical manner the physics and chemistry of planetary bodies; this is then applied to objects in the Solar System. Some mathematical relationships are included in appendices (1–9) and tables of data on the Solar System are included at the end of the book.

The first five chapters deal with general considerations on the formation and stability of planetary objects, e.g. chemistry, mass, internal conditions, atmospheres and magnetism. In succeeding chapters, these considerations are applied to the Earth and Moon, the remaining planets, and the remaining satellites. This is followed by a brief discussion on the origin of the Solar System and the final chapter deals with a planet as a 'life-support system'. Each chapter ends with a summary of the points discussed. There is also a three-page bibliography with brief notes on the references cited. The chapters are conveniently sub-divided into sections on specific and related topics.

Although written for a non-mathematical reader, the vocabulary used is scientific and the treatment is analytic. The discussions reflect our current knowledge, or lack of it, and the gaps in the arguments are not glossed over. The book is aimed at the sixth form and first year undergraduate level and it provides useful background reading to more advanced texts.

A. L. GRAHAM

Lagos, G., ed. *El Litio: un neuvo recurso para Chile*, Santiago, Chile (Editorial Universitaria), 1986. 216 pp., 66 figs. Price: Latin America US $20.00, Rest of the World US $25.00 (both post-free Air Mail).

This book represents the proceedings of a symposium held in Chile in September 1985. There are eight general chapters on the World supply and reserves of lithium and the uses of the metal in industry, pharmacology and medicine, followed by four specialist chapters dealing respectively with the preparation of Cu–Al–Li alloys rich in copper, the isotopic separation of lithium, the determination of ^{6}Li by NAA, and the geological and hydrogeological characteristics of the salt deposits of the Atacama Desert. The brines of these salt deposits contain K, Mg, SO_4, Na, Ca, and Cl in addition to Li but the latter amounts to some 1.19–4.10 g/litre and appears to be derived from a thick ignimbrite formation. It is projected that by 1992 Chile will become the World's major producer of lithium.

R. A. HOWIE