

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 nuevo 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 ^6Li 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