

many such students would have the time (or the patience) to work systematically through the many exercises here given or whether the necessary equipment would be at their disposal (where, for example, does one procure coloured plastic spheres with radii in the ratios $1:0.732:0.414:0.225$?). It is therefore more likely that the principal appeal of the work will be to teachers as a source of ideas and to those who are more interested in 'recreational mathematics' than in chemistry.

The greater part of the book is devoted to the exercises (103 in all). These are followed by a section presenting the solutions to the problems, and the volume ends with four lengthy theoretical appendices. The work is elegantly produced and copiously illustrated with excellent diagrams.

R. C. EVANS

DOE (B. R.). *Lead isotopes* (Minerals, Rocks & Inorganic Materials: Monograph Series of Theoretical and Experimental Studies, Vol. 3). Berlin, Heidelberg, and New York (Springer-Verlag), 1970. ix+137 pp., 24 figs. Price DM36 (U.S. \$9.90).

IN contrast to some important earlier reviews of lead isotope geochemistry, which have a strongly physico-mathematical bias, Dr. Doe's book is written from a refreshingly geological viewpoint. Most of the work is divided evenly between uranium-thorium-lead dating and the isotope geochemistry of 'common' lead. Radioactive lead isotopes receive a brief mention. Several appendices give tables of isotopic analysis of trace lead in common rocks, and the bibliography selectively covers about one-third of the published literature.

The section on U-Th-Pb dating systematically reviews the various mineral groups to which these methods have been applied. That on common lead surveys the results from old basement rocks and sediments as well as the more widely investigated young volcanic rocks and lead ores. The work relies heavily on tabular presentation of material (not just numerical data), and the text is very readable. Considered as a critical introduction to the literature of lead isotopes (including important Russian work) it will be extremely valuable, even to specialists in isotope geology: the price, however, seems excessive for such a slim volume, and must surely narrow the readership to less than the book deserves.

M. H. DODSON

POUGH (F. H.). *A field guide to rocks and minerals*. London (Constable & Co. Ltd.), 1970. xv+349 pp., 33 figs., 46 pls. (25 in colour). Price £1.75.

APART from one brief chapter on rocks and four rather unconvincing plates figuring common rocks, this book is devoted to the study of minerals. It is in two distinct parts, the first section being concerned mainly with physical properties, crystallography, chemical classification, and simple tests, whereas the second and much longer part is concerned with mineral descriptions. This genuinely pocket-sized book is not intended as a textbook of mineralogy but is a practical book with as much first-