

chapter 13 deals with the tektites, which 'may well be of extra-terrestrial origin, i.e., meteorites, but absolute proof is still lacking'; Appendix I is a very useful summary of methods for the chemical analysis of meteorites, and for the interpretation of such analyses; Appendix II is a list of meteorites of the U.S.A., arranged under states; the 'Bibliography', however, is really no more than a list of references.

Particularly valuable are: the inclusion of a series of tables showing the meteorites definitely identified as belonging to each class; and the excellent balance in the presentation of rival theories—Mason succeeds in avoiding advocacy without falling into indecision. The classification adopted is that of Prior with a few minor modifications: the attempt to distinguish between hexahedrites and nickel-poor ataxites is dropped; a class of olivine-pigeonite chondrites is divided off from the hypersthene chondrites; the amphoterites are seen to contain chondrules and are included with the chondrites, while the rodites do not differ essentially from the diogenites; Wiik's Type I and Type II carbonaceous chondrites form a separate class, while his Type III are essentially olivine-pigeonite chondrites.

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BARTH (Tom F. W.). *Theoretical petrology*. 2nd edn. New York and London (John Wiley & Sons), 1962. xi+416 pp., 154 figs. Price 96s.

This standard textbook has been thoroughly brought up to date and many of the sections have been rewritten. It is now divided into five parts, the first four being identical with those of the first edition [M.A. 11-514], i.e. Physics and chemistry of the earth, Sedimentary rocks, and Metamorphic rocks, while Part V is a new addition on Geochemical cycles. The only other change is that the thermodynamics, which was scattered throughout the book in the first edition, has now been brought together in an appendix. This is much more satisfactory.

There are unfortunately too few modern textbooks on this subject available in English, and it seems a pity that the usefulness of this book to the advanced student and research worker is marred by a bad reference system peculiar to this edition. Not only is it difficult to find the lists of references (they are at the end of each part), but one can never be sure that any reference, given in the text by author and date, will be listed, as only selected references are collected in each list. In Part III alone there are 28 diagrams with only author and date as reference. Surely if a reference is worth quoting in the text it must be given in full, or why quote it at all?

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