

## BOOK REVIEWS

Criddle, A. J. and Stanley, C. J. (Eds.) *Quantitative Data File for Ore Minerals* (Third Edition). London (Chapman & Hall), 1993. i-lxiv + 635 pp. Price £75.00

The 'Quantitative Data File for Ore Minerals' was first published in 1978 under the inspirational editorship of the late Norman Henry. This latest edition of the 'QDF' extends and develops the concept of a comprehensive database of quantitative optical data for ore (opaque) minerals and is a very worthy successor. Like both previous editions, it has been produced under the auspices of the Commission on Ore Mineralogy (COM) of the International Mineralogical Association and, like the second edition, it has also been produced with the support of the Natural History Museum, London.

The bulk of the text, which is in a large (A4) format, consists of single page entries for almost all known opaque minerals (some 505 species are included). The top half of the page uses a tabular (or 'file card') format to present the reflectance data at the four COM recommended wavelengths and at every 20 nm between 400 and 700 nm. In addition to this, quantitative colour values (expressed in terms of x, y, Y% and  $\lambda_d$  and  $P_e\%$ ) are given and, wherever possible, data on Vickers Hardness. Supplementary information, in addition to mineral name, symmetry and provenance, includes reference to X-ray data in the Powder Diffraction File and data on the chemical composition of the actual sample measured, standard used in reflectance measurement, and method used to polish the sample. A very welcome innovation in this new edition is the use of the bottom half of the page to present plots of the spectral reflectance data, thereby conveying an immediate impression of the dispersion and (where appropriate) bireflectance characteristics of the mineral.

The front matter of the book comprises background and introductory notes with a selected bibliography and three 'keys' to the full page entries for the individual minerals (which, incidentally, appear alphabetically by mineral name). The first key lists all mineral entries in ascending order of reflectance at 546 nm and includes the reflectance values at the other three COM recommended wavelengths (470, 589, 650 nm), together with the mineral formula and the

page number of the detailed entry. The second key lists all mineral entries using the quantitative colour values with minerals given in ascending order of luminance (Y%). The third key employs air and oil immersion reflectance data, listed in ascending order starting at 440 nm.

This is a splendid volume, based on meticulously assembled data (much of it new), and is well produced and presented. It belongs in the libraries of all institutions and individuals with a serious interest in ore minerals.

D. J. VAUGHAN

Maurice, Y. T. (Ed.) *Proceedings of the Eighth Quadrennial IAGOD symposium*. Stuttgart (E. Schweizerbart'sche Verlagsbuchhandlung) 1993. xi + 894 pp. Price DM 340.00

This volume is a singular reminder of the vast variety and global distribution of ore deposits and the enthusiasm and activity of the large international research community that studies them. Yvon T. Maurice has assembled 77 papers from the Eight Quadrennial meeting of the International Association on the Genesis of Ore Deposits held at Ottawa in August, 1990, into an impressive volume of grass roots ore deposits research.

The papers are collected under the following themes (most of which correspond to IAGOD Commissions or working groups): Tectonics of Ore Deposits (4 papers); Paragenesis (8); Ore-forming fluids in inclusions (5); Fluorite and barite deposits (4); Skarn deposits (3); Tin and tungsten deposits and rare metal granitoids (10); Ore deposits in mafic and ultramafic rocks (4); Ores and metamorphism (3); Metallogeny of the Bohemian Massif (2); Hydrothermal activity, Juan de Fuca Ridge (1); Genetic relationship of ores in sedimentary rocks (4); Manganese (1); Genesis of vein and lode gold deposits (8); Distribution and metallogenesis of metallogenic provinces (8); Precious metal deposits in supergene environments (1); General (11).

The majority of the articles in this volume relate to specific deposits or districts. The following selection gives a flavour of the variety of subject matter covered: Bayan Obo rare earth deposit, Inner Mongolia (Chao *et al.*); Magmont-West mine, Viburnum Trend (Hagni); fluid inclusions Colombian emerald deposits (Giuliani