

products of major metals; metallurgical by-products and co-products of the minor metals; milling by-products and co-products of the minor metals; individually mined minor metals; and minor metals without geologic limitations.

The chapter on "Supply conditions" shows a real understanding of the problems of minor metals, although it would have been still better if specific examples had been used to show how intertwined the milling and metallurgical recoveries of the minor metals are with the mixed mineral ores. The nature of these problems explains why many large firms already in nonferrous major metals or chemicals diversify into minor metals, and, conversely, why few new firms have successfully broken into the business. Other chapters covering "Location and scale of production," "Firms producing minor metals," "Sources and competition," and "strength of competition," supported by 20 tables, seven illustrations, and four appendices, round out the book.

The volume has excellent typography and editing. (The only error I found was the transposition of tables 1 and 2 on pp. 4 and 5.) Although in some places (pp. 13-31 in particular) the book reads like the graduate thesis it was, it is otherwise professional in every sense and will make rewarding reading not only for mineral and metal economists but also for marketing and planning people and, of course, exploration geologists.

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## Articles in Botany

Volume 2 of **Advances in Botanical Research** (Academic Press, New York, 1965. 394 pp., illus. \$12), edited by R. D. Preston, continues a series of topical review papers generous in length and in number and quality of illustrations. It contains six articles: "Some phyletic implications of flagellar structure in plants" by Irene Manton; "Fundamental problems in numerical taxonomy" by W. T. Williams and M. B. Dale; "Ultrastructure of the wall in growing cells and its relation to the direction of growth" by P. A. Roelofsen; "The protein component of primary cell walls" by D. T. A. Lampport;

"Embryology in relation to physiology and genetics" by P. Maheshwari and N. S. Rangaswamy; and "The soft rot fungi: their mode of action and significance in the degradation of wood" by John Levy.

These articles will be of interest and importance to workers in the pertinent areas; the nature of the coverage of course varies greatly among the topics and authors. Roelofsen's and Maheshwari and Rangaswamy's extensive articles survey in detail rather large bodies of literature, the former bringing the author's point of view up to date since the appearance of his 1959 monograph on the same subject, the latter reviewing in historical perspective an entire area, but with emphasis on the tissue-culture approach of the last couple of decades. Lampport's article on cell-wall protein is long not because of extensiveness of its subject but through inclusion of much previously unpublished tabular and graphic material, and liberal indulgence in discourse and speculation (including passages and quotations justifying the merits of speculation!). Although the paper on numerical taxonomy by Williams and Dale refers to the needs of "the newcomer to this field" in its introduction, for this reader as a newcomer the article gives, to transpose the words of Preston's description from the preface, a somewhat bewildering look to this new field; the writing seems to be directed to a class of specialists that in my guess will include but few taxonomists, important though the principles discussed no doubt are to taxonomy.

The book contains at least its share of errors, including a conspicuously garbled address for Lampport on the page before the preface, and the delightfully suggestive "Unexpected leaves" appearing prominently in Table X on page 177.

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## New Books

### Biological and Medical Sciences

**Advances in Comparative Physiology and Biochemistry.** vol. 2. O. Lowenstein, Ed. Academic Press, New York, 1966. 415 pp. Illus. \$14.50. Four papers: "Comparative electrophysiology of excitable membranes" by Harry Grundfest; "The comparative physiology of invertebrate cen-

tral neurons" by Donald Kennedy; "Physiology and biochemistry of *Knallgasbacteria*" by H. G. Schlegel; and "Comparative physiology of marsupials" by H. Waring, R. J. Moir, and C. H. Tyndale-Biscoe.

**Advances in Immunology.** vol. 5. F. J. Dixon, Jr., and J. H. Humphrey, Eds. Academic Press, New York, 1966. 455 pp. Illus. \$16. Five papers: "Natural antibodies and the immune response" by Stephen V. Boyden; "Immunological studies with synthetic polypeptides" by Michael Sela; "Experimental allergic encephalomyelitis and autoimmune disease" by Philip Y. Paterson; "The immunology of insulin" by C. G. Pope; and "Tissue-specific antigens" by D. C. Dumonde.

**Advances in Protein Chemistry.** vol. 21. C. B. Anfinsen, Jr., M. L. Anson, John T. Edsall, and Frederic M. Richards, Eds. Academic Press, New York, 1966. 461 pp. Illus. \$16.75. Four papers: "Naturally occurring peptides" by S. G. Waley; "Cytochrome c" by E. Margoliash and A. Schejter; "Hydrogen exchange in proteins" by Aase Hvidt and Sigurd O. Nielsen; and "Selenium derivatives in proteins" by J. Jáuregui-Adell.

**Advances in Teratology.** vol. 1 D. H. M. Woollam, Ed. Logos Press, London; Academic Press, New York, 1966. 297 pp. Illus. \$12.50. Seven papers: "The causes of Down's syndrome" by L. S. Penrose; "X-chromosome inactivation in mammals" by Mary F. Lyon; "Recent advances in the viral aetiology of congenital anomalies" by Gordon C. Brown; "Immunologic aspects of developmental biology" by Robert L. Brent; "The teratogenic effects of azo dyes" by F. Beck and J. B. Lloyd; "Effects of ionizing radiations on mammalian development" by Samuel P. Hicks and Constance J. D'Amato; and "Drugs and human malformations" by R. W. Smithells.

**Analysis of Normal and Abnormal Cell Growth: Model-System Formulations and Analog Computer Studies.** Ferdinand Heinmets. Plenum Press, New York, 1966. 302 pp. Illus. \$12.50.

**Animal Behaviour.** A synthesis of ethology and comparative psychology. Robert A. Hinde. McGraw-Hill, New York, 1966. 544 pp. Illus. \$10.50.

**Animal Nursing.** vols. 1 and 2. Bruce V. Jones, Ed. Pergamon, New York, 1966. vol. 1, 304 pp.; vol. 2, 288 pp. Illus. Paper, \$7.50.

**Atlas Stéréotaxique du Diencephale du Rat Blanc.** D. Albe-Fessard F. Stutinsky, and S. Libouban. Editions du Centre National de la Recherche Scientifique, Paris, 1966. 93 pp. Plates. F. 50.

**Behavior Therapy Techniques: A Guide to the Treatment of Neuroses.** Joseph Wolpe and Arnold A. Lazarus. Pergamon, New York, 1966. 208 pp. Illus. Paper, \$2.75. The Commonwealth and International Library.

**Beryllium: Its Industrial Hygiene Aspects.** Herbert E. Stokinger, Ed. Academic Press, New York, 1966. 410 pp. Illus. \$11.60. Contributors are A. J. Breslin, Joseph M. DeNardi, Robert G. Keenan, L. E. Krejci, Andrew L. Reeves, L. D. Scheel, Thomas L. Shipman, Herbert E.

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