

discussion. Wiener's theory of optimum filters and some ramifications due to the author are then discussed. The criteria of fidelity are all of the mean-square-error type. The resulting Wiener-Hopf equations are discussed, *mirabile dictu*, without once mentioning analytic continuation. However, this is possible if one restricts the discussion to rational spectra. Within this limitation the author has done a fine job of presenting the elements of the theory of filtering and prediction. The final chapters are on the representation of correlation functions by orthonormal functions, a method pioneered by Norbert Wiener and the author.

It is regrettable that no account is given of at least the definitions of information theory. Otherwise this book has much to recommend it as an introduction to work in the theory of communication.

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Glossary of Atomic Terms. U.K. Atomic Energy Authority, London, 1960 (order from H.M. Stationery Office, London). 54 pp. 3s. 6d.

This pocket-size compilation contains about 400 brief definitions of chemical elements and compounds, reactor components, materials and accessories, instruments, and units of measurement frequently used in nuclear science and technology. Many of the entries are names and abbreviations of atomic and electric power plants in the British Commonwealth; for example, Calder Hall, HERMES, HIFAR, NRX—reactors in Great Britain (at Harwell), Australia, and Canada, respectively—and S.S.E.B.—South of Scotland Electricity Board.

The need for selectivity in a glossary of this size may account for some of the gaps, but hardly warrants the omission of relevant terms such as annihilation, atomic absorption coefficient, bubble chamber, californium, elementary particles, positronium, radiocarbon, nuclear magnetic resonance, and many others.

Nevertheless, this is a handy, inexpensive tool keyed to the needs of the nonspecialist who has some familiarity with science and technology.

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Miscellaneous Publications

(Inquiries concerning these publications should be addressed, not to Science, but to the publisher or agency sponsoring the publication.)

Agricultural Problems in Arid and Semiarid Environments. Alan A. Beetle, Ed. Agricultural Experiment Station, Univ. of Wyoming, Laramie, 1960. 64 pp. A symposium held at the 35th annual meeting of the Southwestern and Rocky Mountain Division of the AAAS and the 30th annual meeting of the Colorado-Wyoming Academy of Science, 6-7 May 1959 at the University of Wyoming.

A Bibliography of Fossil Man. 1845-1955. George E. Fay, pt. 1. Southern State College, Department of Sociology and Anthropology, Magnolia, Ark., 1960. 100 pp.

Chemical Aspects of the Structure of Small Peptides. Dorothy Wrinch. Munksgaard, Copenhagen, Denmark, 1960. 194 pp. Kr. 24.

La Chimie électronique et ses applications industrielles. Andree Goudot. Presses Universitaires de France, Paris, 1960. 126 pp.

Drawings of British Plants. Stella Ross-Craig. Being illustrations of the species of flowering plants growing naturally in the British Isles. pt. 14, *Adoxaceae, Caprifoliaceae, Rubiaceae, Valerianaceae, Dip-sacaceae*. Bell, London, 1960. 40 pp. 10s. 6d.

Educators Guide to Free Filmstrips. Mary Foley Horkheimer and John W. Diffor, Eds. Educators Progress Service, Randolph, Wis., ed. 12, 1960. 172 pp. \$6.

The Electron. Alfred Bender. Sentinel Books, New York, 1960. 128 pp. \$1.

Elementary Physiology. A laboratory guide. Oscar E. Tauber, Robert E. Haupt, and Delma E. Harding. Macmillan, New York, 1960. 190 pp. \$3.50.

ESP in Relation to Rorschach Test Evaluation. Gertrude Schmeidler. Parapsychology Foundation, New York, 1960. 89 pp.

Factors Influencing the Institutionalization of Mentally Retarded Individuals in New York City. Gerhart Saenger. Interdepartmental Health Resources Board, Albany, N.Y., 1960. 163 pp.

Germany between East and West. Wolfgang F. Stolper. National Planning Assoc., Washington, D.C., 1960. 92 pp. \$1.75. This report, seventh in the series entitled "The Economics of Competitive Coexistence," analyzes the postwar economic growth in the two parts of Germany. Stolper notes that in West Germany the gross national product by 1958 was 90 percent above the 1936 level, while in East Germany it rose only 20 percent, but he points out that recently the gap has narrowed. Despite the East German gain, he concludes that "over the long run it is unlikely that gross national product will rise faster in the East than in West Germany." He also concludes that West Germany is of value in the Cold War struggle because it is a really good market for raw materials and foodstuffs produced by many of the less developed nations and it does not carry the burden of a recent colonial past—thus, it is an attractive trading partner for the uncommitted nations.

Les Globulines sériques du système gamma. Leur nature et leur pathologie. J. Heremans. Editions Arscia, Brussels, Belgium; Masson, Paris, 1960. 340 pp.

History of the Primates. An introduction to the study of fossil man. W. E. LeGros Clark. British Museum (Natural History), London, ed. 7, 1960. 119 pp. 5s.

Index to Theses Accepted for Higher Degrees in the Universities of Great Britain and Ireland. vol. 8, 1957-58. Magda Withrow, Ed. Aslib, London, 1960. 173 pp. 25s.

Laboratory Manual for Medical Bacteriology. M. J. Pickett and Eric L. Nelson. Burgess, Minneapolis, Minn., 1960. \$3.50.

Lithofacies Maps. An atlas of the United States and Southern Canada. L. L. Sloss, E. C. Dapples, and W. C. Krumbein. Wiley, New York, 1960. 108 pp. \$5.50.

The Manufacture and Testing of Durable Book Papers. Based on the investigations of W. J. Barrow. Randolph W. Church, Ed. Virginia State Library, Richmond, 1960. 63 pp.

The Marine Fishes of Rhode Island. Bernard L. Gordon. Book and Tackle Shop, Watch Hill, R.I., 1960. 147 pp. \$4. Annotated list of marine fishes of Rhode Island.

The Mechanism of Heterogeneous Catalysis. J. H. De Boer, Ed. Elsevier, Amsterdam, Netherlands, 1960 (distributor for U.S. and British Commonwealth, Van Nostrand). 189 pp. Proceedings of a symposium held 12-13 November 1959 in Amsterdam.

Reading: Its Creative Teaching and Testing, Kindergarten through College. Frances Oralind Triggs. The Author, New York, 1960. 150 pp.

Selected Bibliography of Contraception: 1940-1960. Christopher Tietze, Ed. National Committee on Maternal Health, New York, 1960. 76 pp. \$1. Covers the medical and sociological literature, including books, chapters of books, conference papers, and journal articles, published in languages of Western Europe from 1940 to early 1960.

Spectrochemical Abstracts, vol. 6, 1954-1955. Ernest H. S. van Someren and F. Lachman. Hilger and Watts, London, 1960. 100 pp. 25s.

Statistical Design (reprints from *Industrial and Engineering Chemistry*). W. J. Youden. American Chemical Soc., Washington, D.C., 1960. 72 pp. \$2. A collection of the bimonthly articles by Youden, published during his 6 years as contributing editor for the journal.

Tested Demonstrations in Chemistry. Journal of Chemical Education, Easton, Pa., 1960. 168 pp. \$3. Reprinted from the *Journal of Chemical Education*; the 1955-56 series edited by Hubert N. Alyea, the 1957-60 series edited by Frederic B. Dutton, and "Demonstration abstracts" edited by Hubert N. Alyea.

U-2 and Open Skies. A. G. Mezerik, Ed. International Review Service, New York, 1960. 45 pp. \$2.50.

U.S. Office of Education. *Bulletin*, No. 16, "Cooperative research projects." U.S. Office of Education, Washington, D.C., 1960. 53 pp. \$0.25.