cept from which it derives ought to be made clear to every student of biological processes. Nor should it be necessary to become involved in "the several conflicting philosophies of plant sociology" before one can show that the living community has the attribute of form by virtue of the processes of which it is an expression.

PAUL B. SEARS

*Oberlin College*

***The corrosion handbook.*** Herbert H. Uhlig. (Ed.) New York: John Wiley; London: Chapman & Hall, 1948. Pp. xxxiii + 1188. (Illustrated.) $12.00.

This volume was prepared as a project of the Corrosion Division of the Electrochemical Society. Approximately 100 contributors supplied 142 articles which make up the book. These articles have been grouped into 9 sections: Corrosion Theory; Corrosion in Liquid Media, the Atmosphere, and Gases; Special Topics in Corrosion; High-Temperature Corrosion; High-Temperature Resistant Materials; Chemical Resistant Materials; Corrosion Protection; Corrosion Testing; and Miscellaneous Information.

As the title implies, the principal purpose of this book is to provide a single source of information, in terms of data and observations, concerning corrosive effects of a wide variety of media on many substances, metallic and nonmetallic. The authors chosen to present this material were well qualified on the basis of their interest or direct efforts in the particular areas covered. The purpose has been served directly in most instances or through references to the original literature. The information given necessarily lags behind the research in the field, but this does not detract from its usefulness.

A number of widely used experimental methods for measuring corrosion rates in the laboratory and in the field are described in some detail. Brief descriptions of various general techniques which might gainfully be applied to corrosion research, e.g. microscopy, X-ray diffraction, electron diffraction, wetting, adsorption, and others, could have been added profitably.

Theoretical aspects of corrosion as such are treated only briefly in about the first 40 pages, but considerable discussion of fundamentals may be found in many of the individual articles. On reading the book, the newcomer to the field will have no difficulty in determining the prevailing opinion on theories of corrosion mechanism, corrosion inhibition, passivity, etc. At the same time there are sufficient expressions of conflicting opinion to indicate that much is still improperly understood. It follows, then, that this book might well stimulate research in corrosion.

The physical make-up of the book is satisfactory, and there are many useful photographs, figures, and references to the original literature. A badly needed glossary of terms is included, and the index, an important item in such a book, is adequate. The book will serve very well the engineer and the scientist interested in corrosion.

NORMAN HACKERMAN

*The University of Texas*

# *Scientific Book Register*

BRYAN, J. M. *Aluminium and aluminium alloys in the food industry, with special reference to corrosion and its prevention.* (Food Investigation Spec. Rep. No. 50.) London: Department of Scientific and Industrial Research, 1948. Pp. v + 153. 3/.

COHN, ALFRED E. *No retreat from reason and other essays.* New York: Harcourt, Brace, 1948. xi + 279. $3.50.

THE COMPUTATION LABORATORY OF THE NATIONAL APPLIED MATHEMATICS LABORATORIES, NATIONAL BUREAU OF STANDARDS. *Tables of Bessel functions of fractional order.* (Vol. I.) New York: Columbia University Press, 1948. Pp. xlii + 413. $7.50.

DESCAMPS, ALPHONSE. *Le R.A.D.A.R. et ses applications.* (Miscellanées Fasc. XXX.) Brussels: Institute Royal Météorologique de Belgique, 1948. Pp. 29. (Illustrated.)

DUFOUR, L. *Notes pour servir à l'Histoire Météorologie en Belgique.* (2nd ser.) (Miscellanées Fasc. XXXI.) Brussels: Institute Royal Météorologique de Belgique, 1948. Pp. 20.

FLANAGAN, JOHN C. (Ed.) *The Aviation Psychology Program in the Army Air Forces.* (Rep. No. 1.) Washington, D. C.: Superintendent of Documents, U. S. Govt. Printing Office, 1948. Pp. xii + 316. $2.00.

GAMOW, GEORGE. *Biography of the earth: its past, present and future.* (Rep. ed.) New York: Pelican Mentor, New American Library, 1948. Pp. 194. (Illustrated.) $.35.

HOPF, L. (transl. by Walter Nef). *Introduction to the differential equations of physics.* New York: Dover, 1948. Pp. v + 154. (Illustrated.) $1.95.

JESSEN, KARL F. W. *Botanik der Gegenwart und Vorzeit in culturhistorischer Entwickelung: ein Beitrag zur Geschichte der abendländischen Volker.* (Rep. ed.) (Pallas, Vol. 1; Frans Verdoorn, Ed.) Waltham, Mass: Chronica Botanica; New York: Stechert-Hafner, 1948. Pp. xxii + 495. $6.00.

NOYES, W. A., JR. (Ed.) *Chemistry: a history of the National Defense Research Committee 1940–1946.* Boston: Atlantic-Little, Brown, 1948. Pp. xviii + 524. (Illustrated.) $6.00.

SHULL, A. FRANKLIN. *Heredity.* (4th ed.) New York-London: McGraw-Hill, 1948. Pp. ix + 311. (Illustrated.) $4.00.

SMITH, R. A. *Radio aids to navigation.* Cambridge, Engl.: at the Univ. Press; New York: Macmillan, 1948. Pp. xii + 114. (Illustrated.) $2.50.

VERWEY, E. J. W., and OVERBEEK, J. TH. G. (with K. Van Nes). *Theory of the stability of lyophobic colloids: the interaction of sol particles having an electric double layer.* New York-Amsterdam-London-Brussels: Elsevier, 1948. Pp. xi + 205. (Illustrated.) $4.50.