CRC Handbook of Chemistry and Physics, 57th Edition

Edited by Robert C. Weast, Ph.D., CRC Press, Inc., 18901 Cranwood Parkway, Cleveland, OH 44128. 1976. 2393 p. $34.95.

This book is the latest annual edition of the CRC Handbook. It contains an enormous amount of precise and up-to-date information in a condensed form from the fields of chemistry and physics.

The book consists of these five sections: (A) Mathematical tables, (B) The elements and inorganic compounds, (C) Organic compounds, (D) General chemical, (E) General physical constants, and (F) Miscellaneous. It also includes a more detailed and improved index. New and revised tables and information have also been added. "The new tables include Fixed Points and Phase Equilibrium Boundaries for Parahydrogen and Thermal Conductivity of Liquid Fluorocarbons. Revised tables and information include Strengths of Chemical Bonds, Isothermal Compressibility of Liquids, Volume Properties of Water at 1 Atmosphere, National Standard Reference Data System Publications, Properties of Fundamental Particles, Illustrative List of Substituent Prefixes, and the section entitled "The Elements"." (from the preface).

A Treatise on Dinitrogen Fixation, Section IV


This volume (Section IV) was designed to emphasize the nature and extent of the contribution of free-living (bacteria and blue-green algae) and symbiotic N₂ fixers (legumes and non-legumes) in both natural and agricultural situations, and the environmental or management factors that influence their contribution. Considerable attention is given to the legumes as principle contributors to the nitrogen economy of tropical and temperate regions in the first six chapters of the volume.

Two chapters deal with the preparation and application of legume seed inoculants and give an excellent historical survey on inoculation. The final five chapters deal with ecological studies with Rhizobium, mineral nutrition, management, methods of measuring N₂ fixation and serological methods.

The chapters are comprehensive, well written and well referenced. In a rapidly changing field such as N₂ fixation, the literature survey is already about 3 years out of date. As a result, the book should be considered a history and summary of research on N₂ fixation rather than an up-dating.

The volume is recommended for those who are involved in agronomic and ecological research in the rapidly growing field of N₂ fixation. Libraries should acquire copies because of the increasing number of scientists studying N₂ fixation. —GEORGE E. HAM, Department of Soil Science, University of Minnesota, St. Paul, MN.