Manual of Chemical Methods for Pesticides and Devices

Technical Services Division, Office of Pesticide Programs, U. S. Environmental Protection Agency. Published by Association of Official Analytical Chemists, Box 340, Benjamin Franklin Station, Washington, D. C. 20044. 1976. $27.00

This thick work (over 6 cm) is a comprehensive compendium of more than 200 analytical procedures for commercial pesticide formulations that are currently being used by the Environmental Protection Agency and State laboratories in enforcing agency regulations. None of the methods described has achieved official AOAC status, but most have been preliminarily validated at one or more laboratories. When a method does become official through appropriate collaborative study, it will be removed from the manual, which is in a loose-leaf format to facilitate additions and deletions, and added to the Methods of Analysis of the AOAC. Issuance of semianual updates of the manual is planned.

The individual methods, involving determinations by infrared or ultraviolet spectrophotometry, gas-liquid chromatography, or high-pressure liquid chromatography, are written in easily followed, cookbook fashion, and include such useful accessory information as the molecular formula of the pesticide, its molecular weight, melting point, physical character, solubilities, stability, and alternate trade names. The manual also contains an extensive cross index of common and trade names of pesticides, about 350 infrared curves, a bibliography of books, manuals, and periodicals relating to pesticide analytical chemistry, and a section on thin-layer chromatography in which Rf values are tabulated.

The compilers of the manual deserve much credit for their obvious care in preparing this work. The publication should be a highly valuable reference to pesticide chemists everywhere.—JOSEPH H. CARO, ARS-USDA, Beltsville Agricultural Research Center, Beltsville, MD 20705.

Air Pollution Control and Design Handbook—Part I


This is a two-volume set of books. Part I covers the basic technology of air pollution control and Volume II is a continuation of the first volume, including information on the new SO2 scrubbing techniques, and on control of odor. A total of 27 authors have contributed to the 23 chapters in Part I.

The first three chapters cover manual and continuous stack monitoring, and provide a clear, concise coverage of these subjects for stack engineers for stack sampling in Chapter Three are being modified by EPA, but the coverage does provide a good basic understanding of the topic.

The next two chapters provide a good coverage of data handling/reporting systems, investigative procedures, and the preparation of evidence. Chapters Six and Seven discuss atmospheric dispersion and considerations for stack design. At this point, the book continues on with a classical approach to air pollution control. Beginning with settling chambers and continuing on with a discussion of other particulate collection devices (cyclones, electrostatic precipitators, and baghouses) Chapters 9 through 15 discuss the theory and applications of this conventional type of control equipment. Unfortunately, little is discussed concerning the operation and maintenance of this equipment, which is becoming a critical item in areas where air quality standards are not being met.

The sections on adsorption and incineration are fairly traditional, but the chapters on heat recovery are particularly good, with excellent examples. The chapter on dust retardants is well written and has a wealth of material on fugitive dust control that is difficult to find. The book is an excellent reference book on basic principles and theory, but is weak in the design area. There is no information on the ancillary equipment required as a part of the system (ducts, fans, pumps, etc.).

The volume should be especially valuable as a text for community college programs, and as a reference book for plant engineers and newcomers to the field of air pollution control.—FRANK L. CROSS, JR., 2713 Timberlake Drive, Orlando, FL 32806.

Wye Island


This is not a scientific publication. The book contains no literature citations, it reports on no controlled scientific experiments, it contains no data, and there are no conclusions. It is a story of people in conflict over the attempted development of Wye Island, a small island in the Chesapeake Bay off the Maryland Eastern Shore. The story centers around Jim Rouse, the developer of Columbia, Md., and other planned cities, and his efforts to develop Wye Island in an environmentally acceptable manner. Jim had spent his boyhood near Wye Island, when the Eastern Shore was primarily rural, and wanted to protect the concept of "open spaces" in his plan to develop the island for others to enjoy. Arrayed against him and his plan were the "natives," who opposed any change that would bring in outsiders, and the "recent natives" who had moved in, established their estates, panoramic views, and seclusion, but did not want anyone else to move in to spoil these for them. In the end, Rouse and his plan were defeated, but Wye Island was saved from being subdivided into five-acre lots by the State of Maryland, which purchased the island for open farming.

Boyd Gibbons is an excellent writer. Through the use of flashbacks and maps, the reader is given a graphic account of the history of Maryland's Eastern Shore, the trials and tribulations of its early working class inhabitants—mostly farmers and fishermen—and the luxury enjoyed by its rich inhabitants. With this background the reader is better able to understand why the people reacted as they did to Rouse's plan.

Because the book contains no index, it is very difficult to find specific topics to which the reader may want to refer. Also, this book is written in a cookbook fashion, and include such useful accessory information as the molecular formula of the pesticide, its molecular weight, melting point, physical character, solubilities, stability, and alternate trade names. The manual also contains an extensive cross index of common and trade names of pesticides, about 350 infrared curves, a bibliography of books, manuals, and periodicals relating to pesticide analytical chemistry, and a section on thin-layer chromatography in which Rf values are tabulated.

The compilers of the manual deserve much credit for their obvious care in preparing this work. The publication should be a highly valuable reference to pesticide chemists everywhere.—JOSEPH H. CARO, ARS-USDA, Beltsville Agricultural Research Center, Beltsville, MD 20705.

Land as a Waste Management Alternative

Edited by Raymond C. Loehr, Ann Arbor Publishers, Inc., P. O. Box 1425, Ann Arbor, MI 48106. 1977. 811 p. $29.50.

This volume is the eighth in a series of proceedings resulting from waste management conferences sponsored primarily by the Cornell University College of Agricultural and Life Sciences. It covers a wide variety of topics on the opportunities and problems related to adding municipal, industrial, and agricultural sludges and effluents to land. Regulations, transformations and reactions of nitrogen, phosphorus, and heavy metals, health aspects, and case histories are the general areas treated by more than 110 authors. Many of the authors are well known, but unexpected in the area of waste management and utilization and treatment system.—B. R. SABEY, Department of Agronomy, Colorado State University, Fort Collins, CO 80523.