

drugs, are likely to encounter similar natural compounds. Examples are given of the wide range of chemicals involved, from natural plant toxins, through drugs for disease control and growth promotion, to the recent use of enzymes and biological enhancement of gut microflora to improve nutrient assimilation. A variety of affected environments are discussed, including ruminant gut and excreta flora, fodder cropland, animal populations with respect to chemical resistance, and the atmosphere with respect to methane production. Although this review suffers from trying to cover too much, the author succeeds in illustrating the range of interesting facets to this complex and multidisciplinary topic.

'*Agricultural Chemicals and the Environment*' manages to cover a lot of scientific ground and remain concisely informative. All reviews are presented in a style which makes this publication an interesting and highly readable text. It forms an excellent addition to the series, providing a valuable and detailed overview for those with a vocational or general interest in agriculture and the environment.

**Jonathan Knight**

*Hazardous and Industrial Wastes: Proceedings of the Twenty-Eighth Mid-Atlantic Industrial and Hazardous Waste Conference.* Scott A. Weber, (Ed.), Technomic Publishing, Lancaster, PA, 1996, 838 pp., \$125.00, ISBN: 1-56676-479-3.

This book is a compilation of over 110 papers presented at this above-noted conference. The theme for the conference was "From Test Tube to Field". The title was selected by the organizers of the conference to reflect the continuing maturation of technology development required for environmental protection and restoration and the need to take that technology into the field. Accordingly, an appropriate mix of papers was selected for the conference to demonstrate the development status of a variety of processes and technologies related to hazardous and industrial waste treatment and site remediation.

Session titles illustrate the scope of the conference:

- Bioremediation Demonstration in New York State Groundwater
- Groundwater Fate & Recovery
- Separation Processes
- Soil Bioremediation
- Containment
- Advanced Oxidation
- Surfactant Enhanced Remediation
- Groundwater Bioremediation
- Emerging Process Technologies
- Sediment Remediation
- Groundwater Treatment
- Pollution Prevention
- Biodegradation

- Soil Washing
- Contaminant Availability
- Waste Recovery & Reuse
- Plant Based Remediation
- Non-Aqueous Phase Liquids (NAPLs)
- Solid Waste Disposal
- Standards for Brownfield Restoration
- Site Management
- Pollutant Measurement
- Site Restoration/Brownfields
- Site and Facility Management

An index of papers and authors from the previous five conferences plus one covering only this year end the book.

**Gary F. Bennett**

*Environmental and Safety Aspects of Combustion Technology.* J.C. Jones, Whittles Publishing, Caithness, Scotland, UK, 1997, 182 pp., £14.95, ISBN: 1-870325-66-4.

The combustion of fossil fuels is, and will continue to be for decades, the dominant source of energy. However, emissions of greenhouse gases (especially carbon dioxide, methane and  $N_2O$ ) as well as acid-forming gases (oxides of nitrogen and oxides of sulfur) and particulates are of concern to air pollution control regulatory officials.

The author presents information on selected areas of combustion as they relate to safety and the environment. The first three chapters discuss pollution resulting from the emissions of oxides of sulfur, nitrogen and particulates. The book then proceeds from emissions (pollution) to fuels. Chapter 4 discusses waste from coal winning, storage and utilization. The next two chapters discuss emissions of contaminants (dioxin included) from the incineration and pyrolysis/gasification of waste.

Hydrocarbons dominate most of the rest of the book with three chapters devoted to the aspects of combustion, fire retardation and extinguishment, and some relevant experimental techniques (concerned with fire and explosion hazard).

The final chapter is devoted to a discussion of the thermodynamics of combustion.

The text contains numerous worked examples and case studies. The final section contains 40 numerical problems suitable for student use. Unlike American texts, however, the solutions to the foregoing problems are printed in the book (most American texts have a separate solutions manual available to the instructor).

The book contains much useful material including a reasonable number of appropriate references. Missing, however, are technical solutions to the aforementioned pollution problems. The problem (of emission) is well-defined; the solutions to the problem are not. Personally, I would have added a brief discussion of control devices/systems.

**Gary F. Bennett**