

New Book from The Royal Society of Chemistry

***Pesticide Chemistry and Bioscience: The Food-Environment Challenge*. Edited by G. T. Brooks and T. R. Roberts. Hardcover, 1999, ix + pp. 1-438. Special Publication No. 233, ISBN 0-85404-709-3.**

Pesticide chemistry has seen many remarkable changes and advances in recent years. Further challenges must be faced to advance the field, and this book, produced as a result of the 9th IUPAC International Congress of Pesticide Chemistry (held in London 2-7 August 1998) and written by leading international experts, reports on the need to produce high-quality food while satisfying environmental concerns. Including new material on natural products, chemical synthesis, mode of action, metabolism, resistance, regulation, and risk assessment, *Pesticide Chemistry and Bioscience* updates all of the key areas in pesticide chemistry and related activities. Together, the contents outline the revolution in approaches to crop protection and in our abilities to develop complex, environmentally acceptable strategies for weed, pest, and disease control.

This collection of current expert views and findings will be of immense interest to researchers and professionals working in the field of pesticide chemistry.

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New Publications from the World Health Organization

Principles for the Assessment of Risks to Human Health from Exposure to Chemicals, Environmental Health Criteria No. 210

1999, xx + 110 pages (English with summaries in French and Spanish), ISBN 92-4-157210-8, CHF 29.-/USD 26.10; In developing countries: CHF 20.30, Order No. 1160210. WHO Marketing and Dissemination, CH-1211 Geneva 27, Switzerland; E-mail:

bookorders@who.ch; Tel.: +41 22 791 24 76; Fax: +41 22 791 48 57.

This book provides a state-of-the-art review of methods and procedures for assessing the risks to human health posed by environmental chemicals. Addressed to regulatory authorities, risk managers, and other decision-makers, the book aims to demystify the principles of risk assessment and thus to encourage wider use of this powerful tool for protecting populations.

Because the detection of chemical hazards may have socioeconomic and political consequences, the book gives particular attention to methods for the accurate identification of risks and determination of their severity. Details range from an alert to sources of uncertainty in scientific evidence, through an explanation of the distinction between individual and population risks, to a list of questions commonly addressed during risk characterization. Practical advice on various options for risk elimination or reduction is also provided in this comprehensive guide.

The book has four chapters covering each logical step in the process of risk assessment. The first, on hazard identification, explains how data on a chemical's toxicity and mode of action can be used to determine whether the chemical will cause adverse effects on health. The strengths and limitations of different types of data are discussed, together with criteria commonly used to establish causality. Methods for assessing dose-response relationships are reviewed in Chapter 2, which explains how to characterize the relationship between the dose administered or received and the incidence of an adverse effect. Methods for assessing nonneoplastic, or threshold, effects and neoplastic, nonthreshold effects are described in detail.

Exposure assessment is covered in the next chapter, which describes methods for determining the nature and extent of contact with chemical substances and discusses the special characteristics of exposure in the general environment, in the workplace, and from consumer products. The final chapter explains the procedure of risk characterization as a decision-making tool that brings together estimates of exposure levels and risks and summarizes sources of uncertainty in the scientific data. Practical options for risk management are presented as a range of regulatory, nonregulatory, economic, advisory, and technological measures.

Monitoring Ambient Air Quality for Health Impact Assessment (WHO Regional Publications, European Series, No. 85), WHO Regional Office for Europe, Copenhagen, Denmark

1999, 196 pages (available in English only), ISBN 92-890-1351-6, CHF 62.-/USD 55.80, Order No. 1310085.

Air quality assessment is frequently driven by the need to determine whether a standard or guideline has

