
The first edition of this book, less than a third of the weight of this volume, was packed with useful information. The ratio of information to mass remains the same and the style of the new edition does not depart materially from that of the original one. The work is essentially a book of reference and is more of a dictionary than a discussion. Anyone who wishes to try to understand the mode of action of a foreign chemical that may be ingested either as a drug or in food or during occupational exposure should start by referring to this volume. With an excellent index and references at the end of each chapter, the original information is easy to trace. It is a book of chemistry and the subject is one which owes much to the work of the author and his colleagues. The occasional references to medicine and statements such as "organic nitrates... have been used for many years in the treatment of hypertension" or "menthol... is a compound of great importance in medicine" or that "syntalbin is used in diabetes" do not enhance the value of the chemical information provided. Problems of industrial toxicology are not enlarged upon. The metabolism of benzene is fully discussed but no reference is made to its unique toxicity to the bone marrow of mammals when compared with related aromatic hydrocarbons. The toxicity of benzene and chlorobenzene are compared only on the basis of their narcotic action (p. 251).

Although documentation is on the whole excellent there are occasional gaps such as the metabolism of cyclohexylamine (p. 119) and there is no reference for the statement that vitamin B₁₂ relieves the poisonous effects of carbon disulphide (p. 40).

Having completed this masterly compilation the author might consider a smaller volume discussing the significance of the information he has presented. A single chapter at the end stimulates the appetite for more. Thus the enzyme systems in liver are mentioned briefly in many places but no general account is given of the ability of the liver to transform foreign chemicals reaching it. For technical reasons the rabbit or larger species has been used in work on the excretion of metabolites yet most toxicity testing is done on rats or mice. There is probably enough information now available to make some useful generalization on species differences.

Much of this work described so far has been of necessity done on chemicals that may be administered in relatively large quantities. Refined methods for the isolation, purification, and identification of chemicals will enable more work in the future to be done on more toxic drugs and chemicals.

It seems probable that further editions of this book will be called for at much shorter intervals than the 12 years that separate the first from the second edition.

J. C. GRAHAM


This is a more complete study than any hitherto on the mechanism of thallium poisoning. Previous reports and theories are fully cited. The author stresses the importance of covering the different fields of analytical chemistry, biochemistry, physiology, and cytology when attempting to penetrate the mechanism of action of toxic substances. This monograph is thus divided into five parts incorporating experimental results obtained under these headings. A survey of this nature tends to be superficial in many respects. However, the spectrophotometric method described for measuring thallium in biological media, the data on distribution of thallium in animals together with those obtained using radioactive thallium are very valuable.

Among the many and varied investigations made, the section on the appearance of alopecia in animals suffering from thallium poisoning is the most striking. Contrary to some earlier reports thallium was found to be without effect on the thyroid in spite of an accumulation of the metal in this organ.

Of the substances tested to alleviate thallium poisoning certain sulphur-containing amino acids showed some degree of efficiency while B.A.L. was without effect.

From results in the more biochemical and pharmacological sections no mode of action is, or can be, suggested for thallium poisoning. In fact, the author concludes that the mechanism of the toxicity of thallium is as equally complex as the chemical properties of the metal, termed "metal paradoxical" by early workers.

J. E. CREMER


All cancer workers will welcome this compilation of the literature starting from the first induction of tumours by a pure chemical compound by Kennaway, in 1930, using 1:2:5:6-dibenzanthracene (considered at the time to be the 1:2:7:8-dibenzanthracene).

The value of such a bibliography depends on its reliability, completeness, and ease of perusal. Though