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BOOK REVIEWS

IARC MONOGRAPHS ON THE EVALUATION OF THE CARCINOGENIC RISK OF CHEMICALS TO HUMANS. ALLYL COMPOUNDS, ALDEHYDES, EPOXIDES AND PEROXIDES. — International Agency for Research on Cancer, Lyon 1985. Volume 36. 369 pp. US. \$. 25.00; Sw. fr. 70.—.

The 36th volume of Monographs published by IARC contains the evaluation of the genotoxic risk of four groups of chemicals: (i) Allyl compounds, (ii) Aldehydes, (iii) Epoxides and (iv) Peroxides. Several of the evaluated compounds occur naturally, *e.g.* allyl isothiocyanate and eugenol in plants, some of them in the polluted environment (acrolein, acetaldehyde), or are used in large quantities in the industry (allyl chloride, ethylene oxide, propylene oxide, styrene oxide, acetaldehyde, hydrogen peroxide). In addition, several of the evaluated compounds are present in the environment as metabolic products or as endogenous agents, *e.g.* acetaldehyde, hydrogen peroxide and malonaldehyde. Physical and chemical data, further data on production, use, occurrence, methods of analysis and biological data relevant to the evaluation of the genotoxic risks are presented for each of the compounds evaluated. The publication is complemented by a graphical representation of data issued from short-term tests. The tests are classified according to the end-point detected (DNA damage, mutation, chromosome aberration, cell transformation) and the test organism (prokaryotes, fungi, green plants, mammalian cells *in vitro*, mammals and humans). Either the minimal effective dose or the maximal dose applied that produced genotoxic effects has been recorded. Readers will find this new section of IARC Monographs called "Activity profiles for short term tests" very valuable.

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IARC MONOGRAPHS ON THE EVALUATION OF THE CARCINOGENIC RISK OF CHEMICALS TO HUMANS. SOME NATURALLY OCCURRING AND SYNTHETIC FOOD COMPONENTS, FUROCOUMARINS AND ULTRAVIOLET RADIATION. VOLUME 40. — International Agency for Research on Cancer, Lyon 1986. 444, pp. Sw. fr. 65.—.

The broad goal of the IARC publication is to collect data on the carcinogenic, mutagenic and teratogenic effects of environmental chemicals. The 40th volume of the IARC Monographs, published jointly with WHO, represents the views of a IARC Working group (Lyon 1985) on the carcinogenic and mutagenic risks of 4 groups of chemicals: 1. Naturally occurring toxins (Bracken fern, citrinin, patulin, rugulosin), 2. Food additives (benzyl acetate, butylated hydroxyanisole, butylated hydroxytoluene, potassium bromate), 3. Amino acid pyrolysis products in food, and 4. Various furocoumarins (*e.g.* angelicins and psoralens). For each compound reported, data on production, use, occurrence, further chemical and physical data and data relevant to evaluation of carcinogenic and mutagenic risks, are covered. Some of the compounds were reviewed in previous IARC Monographs, *e.g.* patulin was evaluated in Volume 10, pyrolysis products of tryptophan in Volume 31, and 8-methoxypsoralen in Volume 24. Most furocoumarins (*e.g.* psoralens) have limited genotoxicity in the dark. However, in the presence of ultraviolet A radiation (UVA) they are activated and can induce mono- and bi-adducts with DNA. Some of these compounds, *e.g.* 8-methoxypsoralen in conjunction with UVA, are used clinically. In the appendix, the reader can find brief information on various types of UV radiation and on the genotoxic effects of UV light alone.

The IARC Monographs should be available in all biological libraries providing information on the genotoxic and carcinogenic effects of environmental pollutants.

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