

BOOK REVIEWS

Krueger HP, Koehnen R, Schoch H (eds) (1995) *Medikamente im Straßenverkehr – Auftreten, Risiken, Konsequenzen* (“**Drugs in Traffic – occurrence, risks, consequences**”). Gustav Fischer, Stuttgart Jena New York, 236 pages. ISBN 3-437-00842-0

This book is an inventory of the prevailing problems and solutions to the complex “Drugs in Traffic” which was compiled at an international symposium “Drugs and Safety in Traffic” under the auspices of the “International Committee on Alcohol, Drugs and Traffic Safety” (ICADTS) and the “Arbeitsgemeinschaft für Neuropsychopharmakologie und Pharmakopsychiatrie” (AGNP – “Working Group for Neuropsychopharmacology and Pharmacopsychiatry”) in autumn 1994. The interdisciplinary dimension of the points in question is further reflected in the fact that the contributions to this book are from medical doctors, pharmacologists, psychologists, epidemiologists, statisticians, biometricists and lawyers.

The main theme throughout the book is the question whether there is a social consensus on the extensive and expensive research to the safety risks from drugs in traffic. This suggests a resignation to such an immense organizational, personnel and financial effort. But at the same time the claim is made that the question on the impairment of biological functions relevant to driving should be included in the general monitoring of the safety of medicines in clinical studies of the phase III and phase IV for all medications, for which an impairment of the psycho motoric spectrum of performance cannot a priori be excluded. In addition to such a legal regulation which must be embodied in the Arzneimittelgesetz (AMG – Statutes for Medications), other ways are also described which

Mueller RK (ed) (1995) *Toxicological analysis*, 2nd edn. MOLINA, Leipzig, pp 846, 54 figs., 50 tables, 500 formulae, ISBN 3-930 865-01-7

The 2nd edition of “*Toxicological Analysis*” published in 1995 is divided into the following sections in the same way as the 1st edition:

1. Fundamentals and General Methods
2. Matter – Oriented Information
3. Data – Oriented Tables

In the first section the management of toxicological analysis (organisation of toxicological laboratories, documentation and storage) is described in addition to the definitions of poison action, principles of intoxication therapy and mechanisms of biotransformation and excretion. The emphasis of this section is on an extensive description of methods of toxicological analysis and of the extraction procedures practically all have been mentioned. The distribution equilibria and dissociation constants (electrolytic dissociations) by the extraction of non-volatile organic compounds from the aqueous phase are extensively described.

The fundamentals, definitions and applications of all chromatographic methods (TLC, HPLC, GC) are extensively described, especially the methods for detection, identification and quantification. In this chapter are described not only the detection procedures in combination with the chromatographic separation but atomic

lead to suitable data for a medical and psychological evaluation of a medication in relation to traffic. Berghaus and Krueger extensively describe possibilities and the limits of meta-analytical methods for the evaluation of the effect of medications in relation to driving.

Schuetz and Weiler make a contribution from the field of forensic medicine and discuss the pharmacokinetic and pharmacodynamic problems of establishing a legal limit for psychotropic substances. They make a suggestion, which is certainly worth discussion under the aspect of illegality, to introduce the highest possible legal limits for psychotropic drugs which can then be reduced in the course of the years with increasing experience. For illegal narcotics they advocate a so-called “validated zero driving limit” which should lie well above the analytical limit of detection.

However, a prerequisite for the forensic-chemical investigation of blood samples is that police officers should, after suitable training, be capable of recognizing drivers under the influence of psychotropic substances. Only in this way can police officers arrive at a sufficient suspicion and order the taking of a blood sample. The American drug evaluation and classification programme is discussed as a model for this.

The last chapter of the book is dedicated to a legal insight into this problem. Altogether this compilation gives a review on the present state of knowledge on the theme “Drugs in Traffic” and controversially discusses what is scientifically possible, the expected benefit of this knowledge and the possible consequences of its practical realisation.

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emission spectrography, atomic absorption spectrometry and x-ray fluorescence spectrometry are also extensively dealt with.

The second section “Matter-Oriented Information” deals with the physico-chemical and toxicological information on inorganic volatile organic (especially ethanol) and non-volatile organic compounds. As non-volatile organic compounds are of special interest for the toxicology they are printed on yellow paper to facilitate information retrieval. In excess of 500 compounds are listed with structural formulae, CAS-number, physico-chemical, chromatographic and toxicological data (LD₅₀, resorption, biotransformation, toxicity, concentration by intoxication).

In the third section the data from more than 2000 compounds are systematically listed giving the retention data in selected chromatographical systems (hR_F, values in TLC systems, HPLC retention data, GC-retention indices) and UV-, IR- and MS-spectrometric data.

This book, with contributions from many internationally recognized experts and edited by R. K. Mueller is a comprehensive reference book, designed not only for the experienced toxicologist and is very useful for the routine work in the laboratory. Furthermore, because of the extensive descriptions of the fundamentals and general methods, this book is appropriate for anyone active in fields associated with toxicology or would like to be familiarized with this expanding subject.

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