

BOOK REVIEW

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A Review of Forensic Toxicology—Controlled Substances and Dangerous Drugs

REFERENCE: Lowry, W. T. and Garriott, J. C., *Forensic Toxicology—Controlled Substances and Dangerous Drugs*, Plenum Publishing, New York, 1979, 445 pp., no price listed.

This book readily fulfills its primary intent of being a practical, educational resource tool for the practicing forensic chemist. The text consists of the following eight sections: Pharmaceutical Dosage Forms, Classification of Scheduled Substances, Regulation of Controlled Substances, Excluded Substances, Excepted Substances, Drug Isomers and Derivatives, Techniques and Instrumentation for the Analysis of Drugs, and Controlled and Noncontrolled but Commonly Abused Substances. Approximately three fourths of the text is devoted to the last section, in which general structures, synonyms, pharmaceutical preparations, biochemistry, toxicology-pharmacology, and general comments are presented. This type of information is invaluable to a chemist who may have to identify an unknown compound, especially if it is not being used in U.S. pharmaceutical preparations.

This book does have some areas that could be improved. For a text intended for a forensic chemist, the section on Techniques and Instrumentation for Analysis of Drugs is very brief. Of the twelve pages in this section, approximately three are dedicated to the theory of nuclear magnetic resonance, while the remaining pages cover the techniques of thin-layer, paper, and column chromatography, ultraviolet and visible spectrophotometry, spectrofluorimetry, infrared spectrophotometry, gas chromatography, gas chromatography/mass spectrometry, liquid chromatography, and the immunoassay techniques of radioimmunoassay (RIA), enzyme multiplied immunoassay technique (EMIT[®]), hemagglutination inhibition (HI), and free radical assay technique (FRAT[®]). Another area in question is in the list of abused substances. While lysergic acid, lysergic acid amide, and lysergic acid diethylamide are separately illustrated, ketamine hydrochloride is omitted.

The authors also state that the information in this text includes the necessary material to assist the expert witness, the prosecuting or defending attorney in a drug case, and the practicing physician who must maintain proper records and prescription records. The Federal Substances Act, which concerns the registration of persons who manufacture, distribute, or disperse controlled substances, is treated in detail in the Regulation of Controlled Substances section.

The opinion or assertion contained herein is the private view of the author and is not to be construed as official or as reflecting the views of the Department of the Army, the Department of the Air Force, or the Department of Defense.

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In conclusion it should be noted that "toxicology" implies detection of poisons or toxic substances. This book provides very little information dealing with detection. There is scant information on substance levels, either therapeutic or toxic, and almost no information on metabolites, which may be the only form of the parent substance present. *Forensic Toxicology* is a misleading title for this book. *Forensic Chemistry* would have been more appropriate and in agreement with the primary intent of the authors.