

Book Review

SPECTROPHOTOMETRIC ANALYSIS OF DRUGS INCLUDING ATLAS OF SPECTRA. By Irving Sunshine and S. R. Gerber. Pp. xvii + 235 (including Index). Charles C. Thomas, Springfield, Ill., U.S.A., 1963. \$10.50.

The infra-red and ultra-violet absorption spectra of a number of commonly used drugs have been determined and presented in *Spectrophotometric Analysis of Drugs including Atlas of Spectra*. This compilation has been made by a toxicologist and the Coroner from Cleveland, Ohio as an aid in the identification of drugs after isolation from blood, urine or stomach contents. Towards this end a simplified isolation procedure is suggested. It is based on solvent extraction of, for example, blood after precipitation of the proteins by zinc salts in alkaline solution. The method is claimed to be preferable to the classical Stas Otto technique.

The ultra-violet absorption spectra have been recorded on a Beckmann DK2 recording spectrophotometer in both 0.1 N sulphuric acid and 0.1 N sodium hydroxide. Infra-red spectra were run on a Perkin Elmer model 21 in potassium bromide pellets and, where solubility allowed, in chloroform solution. Apart from the statement that "material isolated is pressed into a KBr disc," details of sample handling and recording conditions are totally absent: for example no path length is quoted for the solution spectra. In view of the well known dangers of the potassium bromide technique, some reference to this might have been expected. Within the field of barbiturates alone there are a number of publications drawing attention to the difficulties of such spectra. The authors give no hint of appreciating this point although they reproduce the spectra for about 18 barbiturates.

In one other respect this publication may be faulted. No chemical formulae are given and substances are referred to throughout by what the authors state are "generic names." These are apparently a mixture of trade names, official names and others. For identification purposes the use of an approved name in every case where it existed would have facilitated recognition; structural formulae would certainly have clarified the matter.

In respect of such criticisms the present volume compares badly with the spectra collection of the USP and NF reference standards although of course it covers a wider field. The volume is indexed for 268 infra-red spectra and 143 ultra-violet and visible spectra: it provides no literature references to previous spectroscopic work on any of the substances named therein.

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