Book reviews

Analytical Atomic Absorption Spectrometry. By W. J. Price. (Pp. 239; 40 figs; £5.80.) London: Heydon. 1972.

The author rightly states in his preface that there are many publications on atomic absorption spectrometry, varying widely in size and price. It is frustrating for experienced workers, let alone newcomers, to this rapidly expanding field of spectrometry to find a book offering information in a concise and authoritative manner.

Mr. Price has largely succeeded in doing precisely this. His clear, well laid out chapters meet the intention to provide the working analyst with a book which can be used along with the instrument on the bench. There are, however, some important points of detail warranting comment.

The extrapolation method using standard additions to the sample can be as precise as an interpolation method, particularly when using biological samples, but not always in practice as displayed in the graph on page 80. Three or four widely spaced standards will not truly reflect what may happen beyond the absorbance axis. For matrix effects may well not yield a straight line and the most serious curvature can occur just where the analyst is most interested, that is, in the lower ranges. Although trichloroacetic acid is suitable for deproteinizing heparinized blood for lead determination this is not so in the case of blood collected into EDTA or indeed with samples from patients undergoing chelation. Analysts must be aware of the anticoagulant used. The aversion to the use of capillary samples because of the danger of contamination from the skin is understandable. Nevertheless in practice it has been shown that provided simple precautions are taken and meticulous attention is paid to technique, the use of capillary blood offers distinct possibilities for the screening of lead workers. It has in fact been successfully used for this purpose in this country.

It has been possible to determine urinary mercury without prior digestion for some four years, and it is surprising that the author should ignore a method which overcomes the possibility of losses during digestion. The elimination of a tedious and time-consuming step is also appreciated by busy laboratory workers.

A curious omission in a practical manual such as this is the failure to state the importance of quality control. The author approaches the point on page 170 but does

not make it clear that recovery experiments will not safeguard the method sufficiently. It is important to use samples similar to the one under investigation that have had their values determined by an independent method. With hospitals and medical research centres being stimulated by the wide interest in the toxicology of trace metals, some 14 pages devoted to this subject seems inadequate, especially as some of the problems of atomic absorption spectrometry are more difficult here.

In summary, the author has made a valuable contribution to the advance of this fascinating and dynamic technique, which shows this book to advantage compared with some other more expensive volumes on the subject.

A. A. CERNIK

The Nails in Disease, 2nd ed. By Peter D. Samman. (Pp. 177; 157 figs; £2.50.) London: Heinemann Medical Books. 1972.

This is a new and up-to-date edition of an excellent book first published in 1965. Dr. Samman is the leading authority on nail conditions, which are referred to him from throughout the United Kingdom. The vast experience thus gained together with notable original contributions by the author have been the subject matter of this book, set forth in a lucid style and with a balanced and critical approach. Of particular value in this new edition is the increased number of references given at the end of each chapter.

The reader could well begin by studying the table on page 172 which gives the relative incidence of nail disorders in 1 128 patients. For reference he will find chapter 2 of particular value; in it the various nail reaction patterns, e.g., brittleness, pitting, discolouration, etc., are described and guidance given as to the major causes. A glossary of descriptive terms is also included in the book.

There is no chapter on occupational nail disorders but reference to the text will reveal descriptions of such relevant conditions as traumatic nail disorders, including occupational onycholysis in poultry pluckers, the effects of dermatitis, occupational paronychia, herpetic whitlow in hospital nurses, radiodermatitis, the effects of constant immersion of the nails in water, nail damage caused by weed killers, etc. In a future edition it would be helpful if such conditions could be included in the index under