'pNH₄⁺ when using a potentially very accurate method:

\[
\text{urea} \rightarrow \text{NH}_3 + \text{CO}_2
\]

but report urea as millimole/litre when using a non-specific measure of serum diacetyl monoxide reactants? One might also ask en passant whether any of the UK-SI Committee report serum osmolality as millimole/kilogram in their laboratories using instruments which actually measure depression of freezing point. The relevant point is surely that all our ordinary techniques have errors of one sort or another.

We are sure our clinical colleagues want their results expressed in a uniform easily understandable manner (one of the few virtues of the SI) and certainly do not want different units used according to the physical principles underlying a particular technique (colorimetry/flame photometry/specific ion electrodes in the present case).

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References


Book reviews


It is not entirely clear for whom this book is intended. The author says that it is primarily for students of medicine and paramedical sciences, but, as the text is very brief, a considerable background knowledge is required to understand it, and the atlas must be used in conjunction with a textbook of methods.

It consists of 279 colour photographs which illustrate the end products of various identification procedures. Some sections, particularly those on fungi and biochemical tests, would be useful to an experienced laboratory worker performing an unfamiliar test or suspecting an unfamiliar organism, but the photographs of bacterial colonies do not always show the differential characteristics as intended. This is a pity, since a useful function of the atlas would be as an alternative to cultures of dangerous pathogens or rare organisms for teaching purposes.

The text is purposely brief, but in some instances needs a little expansion. For example, a photograph of mycobacteria stained by the Ziehl-Nielsen method 'illustartes why treatment with strong acid or alkali is used to decontaminate sputum' without a comment that the stain is selective for acid-alkali-fast bacteria.

In spite of these reservations it is a pleasant book to browse through and find some techniques which are not performed routinely in one's own laboratory and, although it has limited value as a teaching manual, it is worth having as a reference book for occasional use.

B. JAMESON


This distinguished man, one of the pioneers in blood coagulation, was working before 1935, and now in his 80th year he still has the wide view of the physiologist and clinician and an appreciation of our old masters—his favourite seems to be William Osler. This is a work for the expert and the connoisseur and not for the student or physician seeking a modern, balanced view of the subject.

This book is as much a distillation and an evocative justification of one man's work as a review of the haemorrhagic diseases and haemostasis. Almost inevitably it presents these great themes seen through the eyes of one man looking back over a long active life in which history will probably decide that the biggest ideas came early. Over and over again he seeks to elucidate the problems almost exclusively with the use of the prothrombin time, the prothrombin consumption test, the bleeding time, and the aspirin tolerance test. Well presented with a great wealth of clinical detail all culled from this man's experience, this is a fine valedictory tome by the originator of the Quick prothrombin time.

J. R. O'BRIEN


This book is a collection of papers given at an international symposium held in Atlanta, USA, in November 1972. It has four editors and 66 contributors of whom six were British, five from other European countries, and one Canadian.

There is much here of great interest on the experimental side, particularly the recent work on the role of intestinal anaerobes in malabsorption syndromes and colonic carcinoma; also the importance of adherence to mucous surfaces in the mouth and experimental evidence of increased pathogenicity of mixtures of anaerobes.

In contrast the clinical side is a little disappointing. It was stated repeatedly that anaerobes will not be isolated without 'good technique' but just what this is was not made clear and no recommendation of how to test one's technique emerged. Indeed, it was implied that a high isolation rate was the best indicator but, of course, this depends very much on the clinical condition of the patients from whom the specimens are received which varies considerably between different hospitals and in different countries.

It was stressed by at least two contributors that specimens in danger of contamination are not suitable for examin-

This book consists of papers presented by 22 experts in the field of abnormal haemoglobin and thalassaemia presented at the 1973 International Conference on Standardization of Laboratory Methods and Reagents. The papers are short, ranging from one to six pages, with a longer section on peptide mapping, and provide comments on current methods for specimen handling, electrophoresis, chromatography, peptide chain separation and mapping, sickling tests, staining for inclusion bodies, detection of unstable haemoglobins, determination of foetal haemoglobin and HbA2, and diagnosis of thalassaemia.

There is a need for an authoritative textbook on methodology, standardization, and quality control in this field. Several of these conference papers reach this standard and will be of considerable value to laboratories which provide a haemoglobinopathy diagnostic service. Other papers, however, are extremely brief or state only personal preferences and recommendations without providing either a substantial review or significant new data. This considerably reduces the impact of the book.

Despite this imbalance, haematologists with a laboratory interest should consider this book as a working manual to supplement existing textbooks on haemoglobinopathies. The text is not sufficiently detailed for the trainee or for laboratory staff without experience in the field, but many of the practical hints given will be of value to the more experienced haematologist or biochemist.

JOHN STUART


This book discusses both the biochemistry of enzymes and the clinical application of enzyme assays. The first eight chapters cover almost every aspect of enzyme biochemistry, including principles of methodology and intracellular localization. The last two chapters outline some of the clinical uses of the subject. Both sections are well written and informative.

W. J. RYAN

The aim of the authors is to integrate the preclinical and clinical aspects of enzymology for the benefit of medical students, and to persuade them that the preclinical study is not just 'an obstacle to be surmounted ... which, once it is overcome, can be dismissed from the mind'. The reviewer's experience of medical students suggests that only the most dedicated of these would sustain their interest through the first 80% of the book, dealing with pure biochemistry of the kind they feel has 'to be surmounted', to reach the last 20% or less of clinical application. The impression is that the clinical and the biochemistry sections were written in isolation. Much more could have been done to integrate theory and practice within the same chapter, and to show the clinical application of preclinical learning. From the point of view of the proposed audience, the biochemistry section is probably too ambitious, including as it does quite long sections on, for instance, methodology and protein synthesis. This, together with the rather unattractive layout, printing, and large blocks of unbroken text, will be unlikely to attract the unconverted reader.

This being said, the book is one which the reviewer read with pleasure, and which many graduates in clinical chemistry will find useful. It is a book for the already converted rather than for the audience at which it is aimed.

JOAN F. ZILVA


This is a truly monumental effort by a single author who has spent many years of research in the field of atherosclerosis. It begins with a survey of the evolution of knowledge on the subject of the natural disorder in man, of its experimental counterpart in animals, and of the macromolecular construction blocks of which the arterial wall is composed. The chapter which follows describes the involvement of the two most important structural components of the vessel (smooth muscle and endothelium) and suggests mechanisms by which intimal thickening may occur. The third chapter on structural macromolecules (elastin)