

The chemistry and biochemistry of N-substituted porphyrins; by D.K. Lavalley, VCH Publishers, Weinheim, 1987, x + 313 pages, DM 89, £32.75. ISBN 3-527-26693-3

This book deals with a narrow, but absolutely fascinating, area of coordination chemistry — that of *N*-substituted porphyrins. Although when first prepared it was not realized, some of these molecules have recently been discovered to be natural products: they are undesirable by-products from drug metabolism in the liver, and from certain reactions of haemoglobin in the blood. The author's approach to his subject is admirable, and his individual expertise shouts from each page. The book is critical, and the chapter which covers synthetic methods (which includes precise and detailed experimental procedures) is a model of its type. Although the synthetic chapter would alone justify the remarkably low cost of the volume, other excellent chapters describe the structural chemistry, the spectroscopic properties and the reactivity of the *N*-substituted porphyrins. The final three chapters are more concerned with biochemistry, describing ferrochelatase inhibition, formation by cytochrome P-450, and formation by reactions of hydrazines with haem proteins (and migration reactions of model compounds). The only annoying features of the book are the inclusion of individual reference lists with each chapter, rather than providing a unified list at the end of the volume, and the limited use of italic print.

This is a rare volume in that it would be totally impossible to perform research in this area without referring to it. Indeed, a copy must be on the shelves of all workers with these materials, whether chemists or biochemists, postgraduate students of faculty. It covers an unusual and interesting area (from 1885 to 1987) in a lucid and thoughtful manner. Although the presentation of the camera-ready copy is somewhat off-putting, it is quite clear and distinct, and the volume makes full use of both tables (of which there are 51) and figures (a total of 45). David Lavalley is to be congratulated on his scholarship, his insight and his dedication: other writers of monographs could benefit from his example.

*School of Chemistry and Molecular Sciences,
University of Sussex, Brighton, BN1 9QJ (Great Britain)*

Kenneth R. Seddon