

*Structural Effects on Equilibria in Organic Chemistry*; by J. Hine, Wiley-Interscience, New York/London/Sydney/Toronto, 1975, xiii + 347 pages, £9.45.

This book is intended for post-graduates and advanced undergraduates, and there is no doubt that such readers would derive much benefit from the clarity and coherence of the author's treatment of a wide range of topics in organic chemistry. There are interesting and instructive problems at the end of each chapter.

The scope is indicated by the chapter headings: Some thermodynamic considerations; Interactions within and between molecules; The Hammett and Taft equations; Equilibrium in conformational and *cis-trans* isomerization; Brønsted acidity and basicity, solvent effects, Brønsted acidity and basicity, structural effects; Lewis acidity and basicity; Equilibrium in additions to and migrations of multiple bonds; Equilibrium in ring formation; Equilibrium in the formation of free radicals. Several sections are of clear interest to students of organometallic chemistry, e.g. acidities of carbon acids, boron acids and steric hindrance, acidity of metals in compounds and ions, and the chelate effect in the formation of metal-ion complexes.

The scholarship one associates with Professor Hine's writings is apparent again in this book, which is warmly recommended. While it is meant as a text book, I suspect that it will also be much cited in research publications.

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

COLIN EABORN

*Index of Vibrational Spectra of Inorganic and Organometallic Compounds, Vol. 2*; by N.N. Greenwood and E.J.F. Ross, Butterworth, London, 1975, vii + 908 pages, £40.00.

This is the second of a three volume compilation which will provide an index to the vibrational spectra of inorganic and organometallic compounds reported in 1935–1966, and deals with the period 1961–1963.

The first volume, covering the period 1935–1960 has been reviewed in this journal\*. Compounds are listed alphabetically, together with brief details of experimental conditions, the type of spectrum, and the frequency range covered. It also cites for each compound a reference to the relevant original paper.

All organometallic chemists will wish to have this volume and its companions readily available to them and thanks are due to the authors for their painstaking work. The third volume (dealing with 1964–1966) will bring the coverage up to the start of the Specialist Periodical Reports on the subject published by the Chemical Society (London).

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

COLIN EABORN

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