

established meaning in chemistry as "a body separated by the decomposition of another in which it previously existed as such, in contradistinction to 'product', which denotes a compound not previously existing but formed during the decomposition"; e.g. educts may be formed by dissociation of an adduct.

This book deserves a wide readership, which I hope will include many contributors to this journal.

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The Chemistry of the Catalyzed Hydrogenation of Carbon Monoxide, by G. Henrici-Olivé and S. Olivé, Springer Verlag, Heidelberg, 1984, ISBN 3-540-13292-9, pp. 231 + X, DM 146.

This is an ambitious book in that it attempts to be both a text book and a reference book, of value to the academic and the industrialist. This is probably misconceived, since very few Universities provide courses on hydrogenation of carbon monoxide which could justify the expense of this book for an undergraduate. That admitted, many people will find it useful as a reference book, and value its attempt to systematise diverse chemical observations.

The book starts in pedagogic mode, with discussions on metal-hydrogen and metal-carbon monoxide interactions. The conclusions are that hydrogen and carbon monoxide bond to bulk metals rather as they bond in complexes. Given the state of knowledge, this conclusion seems inevitable, and surely is of limited value. There follows a résumé of non-catalysed CO/H₂ interactions on metal surfaces and of selected key reactions in catalysis. This is all useful undergraduate teaching material.

From then on the book becomes more detailed and more sophisticated. It begins to broach a key question — the differences between bulk metals, metal surfaces, and isolated atoms — and then discusses, in turn, methanation, methanol synthesis, the Fischer-Tropsch synthesis, and, more superficially, hydroformylation, and the synthesis of polyalcohols.

The final chapters cover the uses of methanol and a synopsis of CO reactivity. Indeed, throughout the book the authors attempt to make generalisations, sometimes, it is true, rather trite, but at other times much more informative. The book itself represents what could become a new genre of text book, directed towards a specific subject which is used as a vehicle for expounding general principles. One can envisage this kind of production in a number of areas. Whether this particular book, in many ways a very useful one, is an isolated example or the first of many remains to be seen. However, the cost will certainly inhibit widespread circulation, which is a pity.

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