Book Review

Supported Reagents: Preparation, Analysis and Applications

By J H Clark, A P Kybett and D.J Macquarry, VCH, Weinheim, Germany, 1992, 156+XI pp.

Although the title 'Supported Reagents: Preparation, Analysis and Applications' may suggest a very comprehensive monograph, this short book (about 150 pp) deals only with inorganic supported reagents. Yet, the argument is timely due to the rapidly expanding interest, related to environmental considerations, for all synthetic technologies aimed at minimizing wastes. All these arguments are clearly identified in Chapter 1 where the general strategy for the choice of the appropriate support material for a given reaction is also presented.

Chapter 2 is a thorough evaluation of the various preparation methods of supported reagents. The specific practical approaches to the problem are described in a step-by-step sequence starting from the support pretreatment, going through the actual preparation of the reagent and ending with the possible supported reagent posttreatment. For each category of reagents a wide range of practical examples is provided.

Chapter 3 deals with the spectroscopic techniques that are useful in the study of supported reagents. Deliberately, only those that are commonly available in organic or coordination chemistry labs (IR, UV–Vis, NMR, ESR, MS, thermal analysis, X-ray, etc.) are described. All spectroscopic techniques are considered in a rather practical way stressing in particular the type of information obtained and the specific advantages and disadvantages.

Three case studies are considered in Chapter 4 (supported fluorides, thiocyanates and Friedel-Crafts reagents) and of these only supported thiocyanates are described in detail.

The book ends with an appendix (in the form of a long synoptic table with 115 refs) where a variety of applications in reactions ranging from oxidation and reduction to aliphatic substitution are shown

In conclusion, a valuable contribution to the knowledge of how these materials are prepared and characterized, however, the lack of a thorough review of the applications and utility of supported inorganic reagents seems to be the major limitation of this monograph.

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