CHEMISTRY
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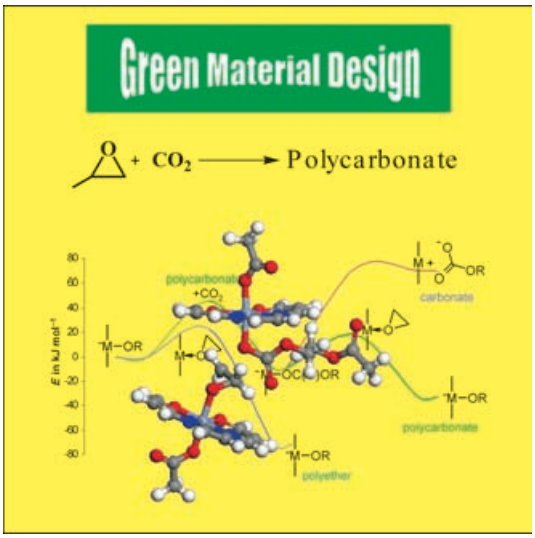
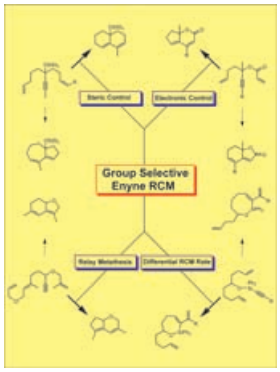
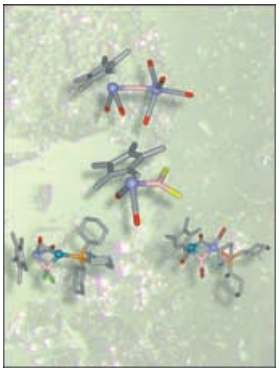
… of the formation of aliphatic polycarbonates from propylene oxide and CO_2 is presented by G. A. Luinstra, F. Molnar, B. Rieger et al. in their Full Paper on page 6298 ff. They describe experimental and DFT investigations for the homogeneous reaction using chromium(III)– and aluminum(III)–salen catalysts as well as for their mixtures.

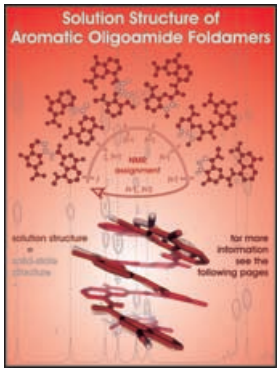




Group-Selective Synthesis
Various cyclic systems can be prepared selectively utilizing the reversible nature of the ring-closing metathesis (RCM) process. In particular, the RCM of dienynes represents powerful methodology for the construction of mono- and bicyclic systems containing 1,3-diene functionality. In order to effectively distinguish between competing reaction pathways, several strategies utilizing steric hindrance, electronic variation, relay metathesis and ring-closure kinetics have been implemented. In their Concept on page 6118 ff., D. Lee and S. V. Maifeld highlight a variety of methods to achieve group-selective enyne RCM of dienynes.

Boron Chemistry
In their Concept on page 6128 ff., H. Braunschweig and G. R. Whittell describe the "organometallic" chemistry of boron-based ligands. They report on the use of half-sandwich iron–dihaloboryl complexes as precursors to a range of hitherto unprecedented types of classically bonded boron ligands. A crystalline allotrope of boron is shown in the background of the frontispiece.





Matching Structures
The solution and solid-state structure of helical aromatic amide foldamers derived from quinoline or pyridine were investigated and found to be the same. The details, along with a new NMR protocol, are described in the article by I. Huc et al. on p. 6135 ff.

