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Chemoselectivity

A. K. Yudin and N. A. Afagh

Boryl-Based Pincer Ligands

J. I. van der Vlugt

Stereoselective Reactions with Stable Carbocations

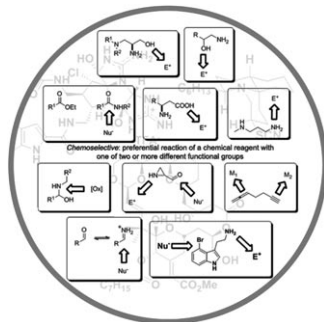
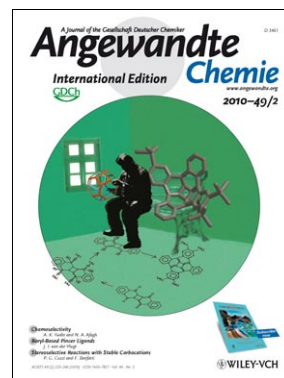
P. G. Cozzi and F. Benfatti



Cover Picture

Bharat, Radha Bhola, Thomas Bally, Alessandro Valente, Michał K. Cyrański, Łukasz Dobrzycki, Stephen M. Spain, Paweł Rempała, Matthew R. Chin, and Benjamin T. King*

The square can play the pentagon's game of inducing curvature into aromatic molecules. In their Communication on page 399 ff., B. T. King and co-workers report the synthesis of a [4]circulene, a compound with four fused benzenoid rings that form an internal square. Contrary to expectations, this deep-bowl-shaped quadrannulene is stable, thereby reflecting its radialene nature.

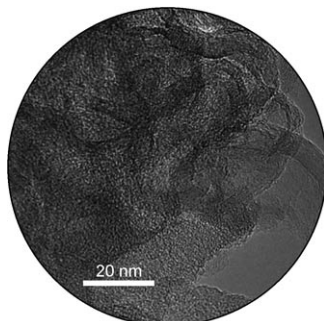
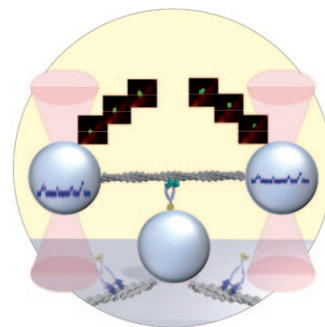


Synthesis Design

Chemoselectivity is a central aspect of chemical synthesis, but finding the right method from the many that are available is often laborious. A careful analysis of the reaction mechanism can offer help, as described by A. K. Yudin and N. A. Afagh in their Review on page 262 ff.

Nanotechnology

Integration of motor proteins into biohybrid devices yields nanomachines with active transport functions. As described by G. Tsiavaliaris et al. in their Communication on page 312 ff., defined, controllable functionality of the proteins is essential.



Carbon-based catalysts

The selective aerobic oxidation of benzyl alcohols occurs successfully with a nanoshell carbon catalyst instead of transition metals. In their Communication on page 436 ff., M.-a. Kakimoto and co-workers outline how the system functions, and the role of HNO_3 as an additive.