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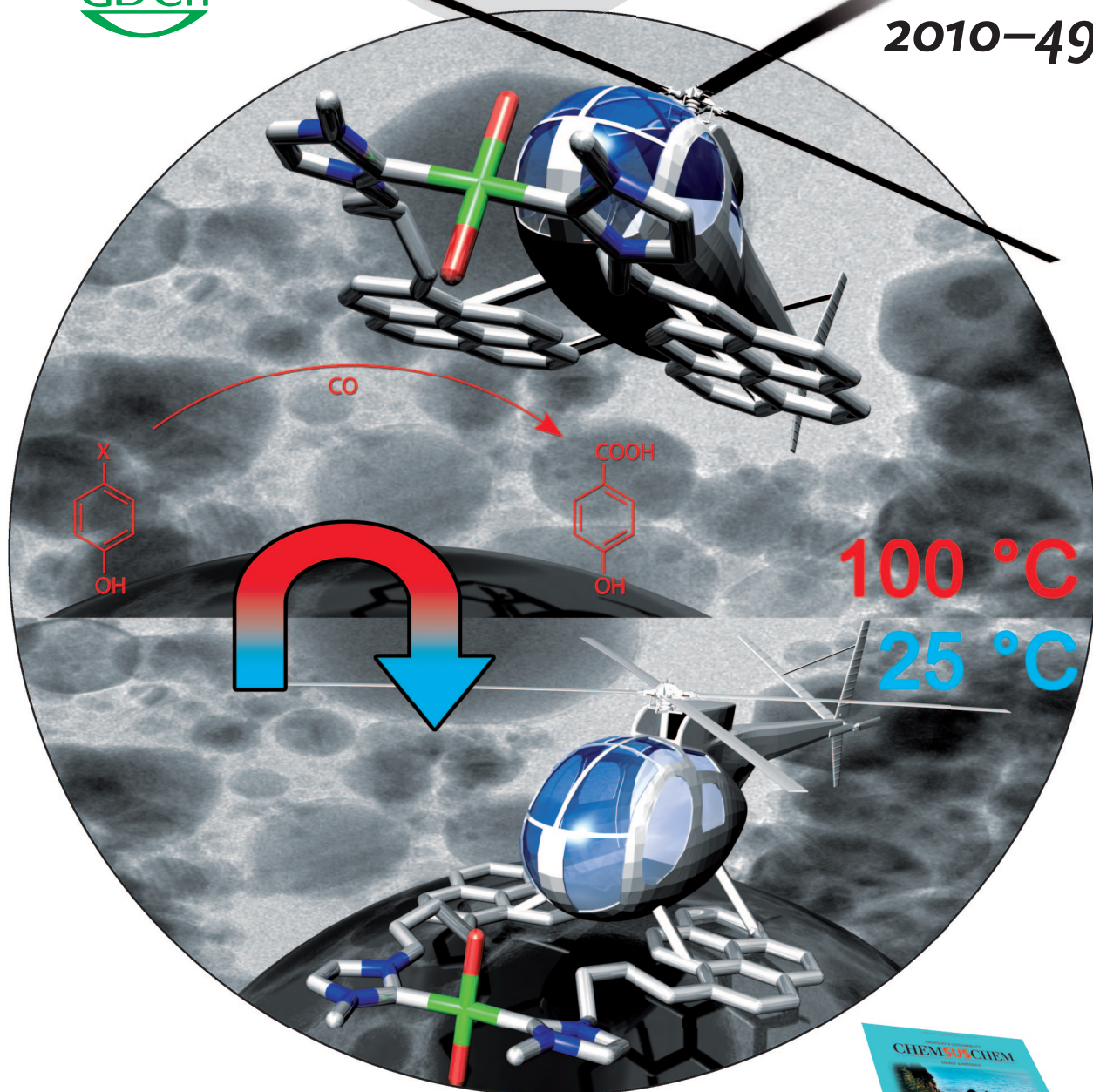
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Polyoxometalates

L. Cronin et al.

Decarbonylative Coupling

J. M. J. Williams and C. L. Allen

ipso-Nitration

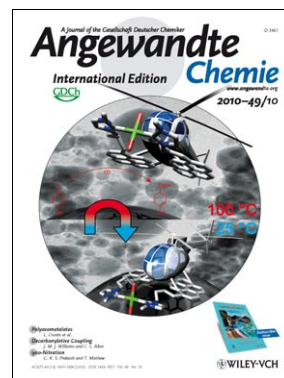
G. K. S. Prakash and T. Mathew



Cover Picture

Sebastian Wittmann, Alexander Schätz, Robert N. Grass, Wendelin J. Stark, and Oliver Reiser*

Temperature-dependent reversible immobilization of Pd catalysts on carbon-coated, magnetic Co nanoparticles is facilitated by pyrene-modified N-heterocyclic carbene ligands. O. Reiser et al. show in their Communication on page 1867 ff. how this approach allows the efficient palladium-catalyzed carboxylation of aryl halides in water at 100 °C: In each of 16 cycles the catalyst is recovered onto the nanoparticles by cooling to room temperature. The nanoparticles are then separated from the mixture by magnetic decantation.

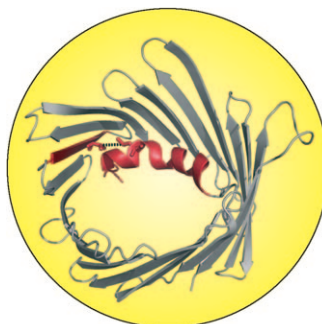


Polyoxometalates

L. Cronin and co-workers systematically study the diverse class of polyoxometalates in their Review on page 1736 ff. Properties and aggregation states are rationalized using a “periodic system of polyoxometalates”.

Porous Dynamical Materials

Rotary motion in mesoporous *p*-phenylenesilica is significantly slowed by guest molecules. As described by P. Sozzani and co-workers in their Communication on page 1760 ff., the rotor speed changes from 10^{10} Hz in the empty channels to 10^3 Hz in guest-filled channels.



Membrane Proteins

The voltage-dependant anion channel (VDAC) is an important transport pathway for metabolites. In their Communication on page 1882 ff. A. Lange et al. determine the conformation of the N-terminal domain of functional human VDAC and find that the N-terminus adopts a defined and rigid structure.