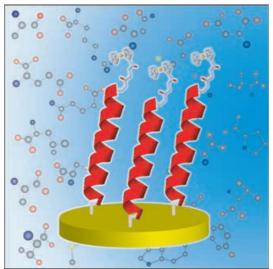
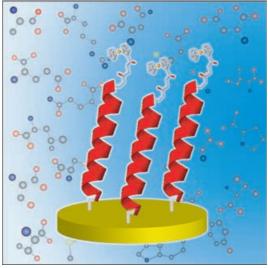
To hop or to tunnel?...

... The mechanism of electron transfer in peptides is currently the topic of an often heated debate with proponents strongly supporting either electron-hopping or bridge-assisted superexchange mechanisms. Experimental and theoretical results to date leave a number of unanswered questions. The Concept article by H.-B. Kraatz et al. on page 5186 ff. provides an introduction into this debate with a focus on recent results obtained from surface measurements.









GERMANY

















ZECH REPUBLIC

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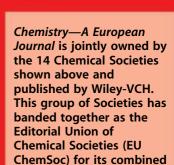




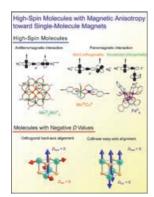


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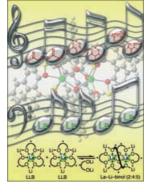


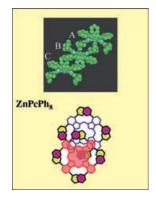
Magnetism

Single-molecule magnets (SMMs) behave as molecularsized permanent magnets at low temperature, and magnetic relaxation occurs by quantum tunneling processes. Such molecules are promising candidates for use in quantum devices. In the Concept article by H. Oshio and M. Nakano on page 5178 ff., they determine the magnetic anisotropy for single metal ions with dⁿ configurations and discuss how molecular anisotropy arises from single-ion anisotropy of the assembled component metal ions.

Aldol-Tishchenko Reaction

In their Full Paper on page 5195 ff., T. Ohshima, M. Shibasaki et al. describe the development of a direct catalytic asymmetric aldol-Tishchenko reaction and the nature of the catalyst itself. They show that a self-assembled lanthanum complex dynamically changed its structure to give an active species in the asymmetric catalysis.





Deformed Phthalocyanines

N. Kobayashi and co-workers describe on p. 5205 ff. how the molecular characteristics, such as Q-band energies and oxidation and reduction potentials, of a series of α-phenylsubstituted zinc phthalocyanines are affected by skeletal deviations and/or phenyl groups.