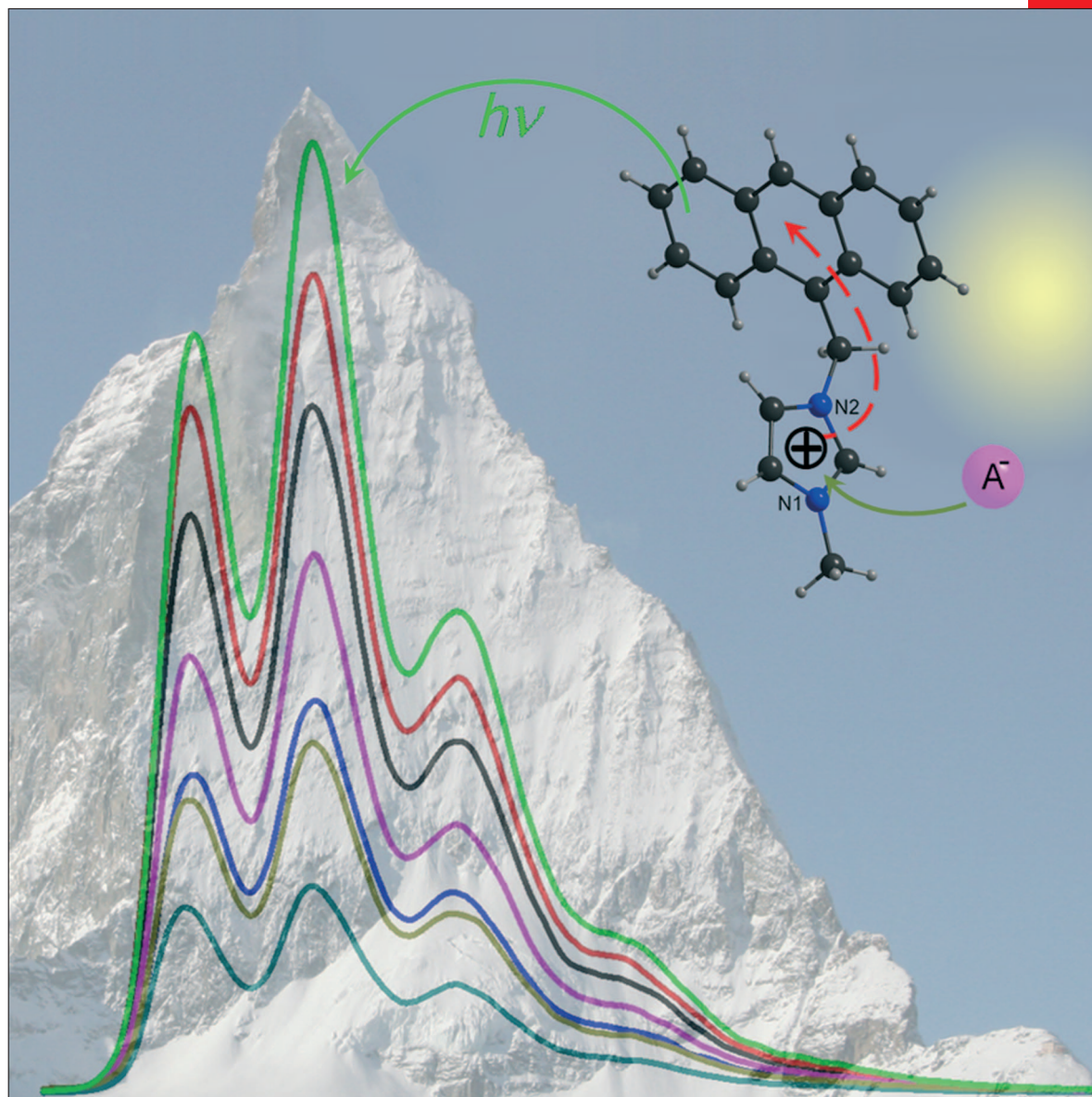


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Concept

Low-Valent Organometallics—Synthesis, Reactivity,
and Potential Applications

S. Schulz

 WILEY-VCH

A Journal of



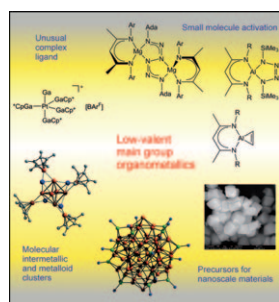
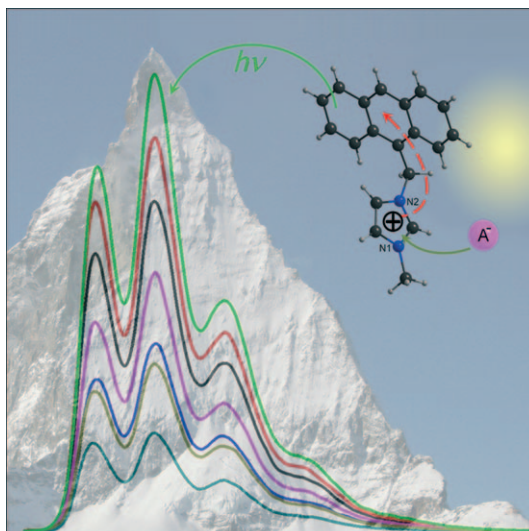
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A series of fluorescent...

... anthracene-functionalized, imidazolium-based salts containing the cation $[\text{AnCH}_2\text{MeIm}]^+$ (An = anthracene and Im = the imidazolium cation) with Cl^- , BF_4^- , PF_6^- , SO_3CF_3^- , $[\text{N}(\text{CN})_2]^-$, $[\text{N}(\text{SO}_2\text{CF}_3)_2]^-$, or PhBF_3^- have been prepared and characterized. In their Full Paper on page 6473 ff., P. J. Dyson et al. describe the single-crystal X-ray diffraction analysis of some of the salts and fluorescence emission analysis. Photodimerization of these salts was also observed. We thank Dr. Alexey Nazarov for providing the photo of the Matterhorn.

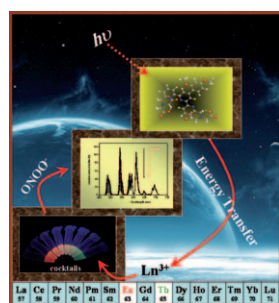
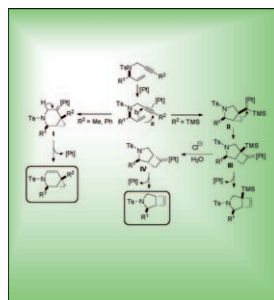


Low-Valent Organometallics

Low-valent main group organometallics are valuable reagents for small-molecule activation and complexation reactions and can also be applied for the synthesis of fascinating intermetallic clusters as well as the low-temperature synthesis of nanoscale materials. For more details, see the Concept article by S. Schulz on page 6416 ff.

Asymmetric Synthesis

In their Communication on page 6442 ff., S.-L. You et al. describe the Ir-catalyzed allylic amination reaction of *N*-tosyl propynylamines, which gives good to excellent yields with excellent regio- and enantioselectivities. In addition, PtCl_2 -catalyzed cycloisomerization reactions of *N*-tosyl allylpropynylamines led to enantioenriched 3-azabicyclo[4.1.0]heptenes and 3-azabicyclo[3.2.0]heptenes, respectively, simply by tuning substituents on the alkyne.



Luminescent Probes

A unique lanthanide-complex-based ratiometric luminescence probe specific for peroxynitrite has been designed and synthesized. The new probe, with fine ratiometric and time-gated capacities, provides a novel strategy for the luminescent imaging detection of ONOO^- in living cells. For more details, see the Full Paper by J. Yuan, Y. Guan et al. on page 6464 ff.

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