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**Minireview** N-Heterocyclic Carbene Mediated Activation of Tetravalent Silicon Compounds: A Critical Evaluation M. J. Fuchter



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# The complexation...

... and extraction of polycyclic aromatic hydrocarbons (PAHs) with a Pt<sup>II</sup>-diazapyrenium-based metallacycle is reported by C. Peinador, J. M. Quintela et al. in their Full Paper on page 12373 ff. Singlecrystal X-ray crystallography confirmed the structures of the complexes. The potential of the designed metallacycle for the selective extraction of PAHs from an organic medium to an aqueous phase was explored by means of competitive extraction experiments.





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## **N-Heterocyclic Carbenes**

In the Minireview on page 12286 ff., M. J. Fuchter evaluates the activation of tetravalent silicon compounds by N-heterocyclic carbenes (NHCs). Diverse reactions are discussed, such as the NHC-mediated addition of silyl pronucleophiles to a variety of electrophiles, NHC-promoted organic and inorganic polymerization, and the reduction of  $CO_2$  by hydrosilanes as facilitated by NHCs.

### **Palladium-Catalyzed Reactions**

In their Communication on page 12303 ff., J. W. Burton and W. Hess describe a palladium-catalyzed tandem cyclization/ coupling reaction that offers a rapid, mild, and efficient route to functionalized pyrrolidines, the products being obtained in moderate to excellent yields as single diastereomers. The reaction tolerates a variety of functional groups including esters, carbamates, amines, ethers, silyl ethers, and aryl bromides, as well as a variety of malonyl esters.





#### **Metal–Organic Frameworks**

A large new family of 3D heterometallic nanoporous networks, assembled on the basis of crystal engineering concepts, shows a great structure-type stability and a promising anion-exchange ability. For more details, see the Full Paper by L. Carlucci et al. on page 12328 ff.



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