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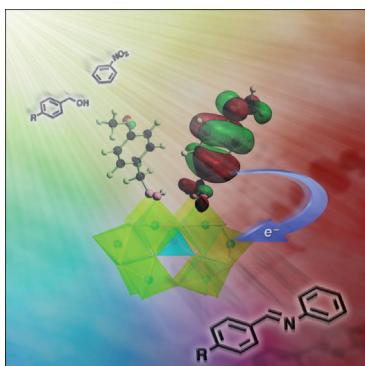


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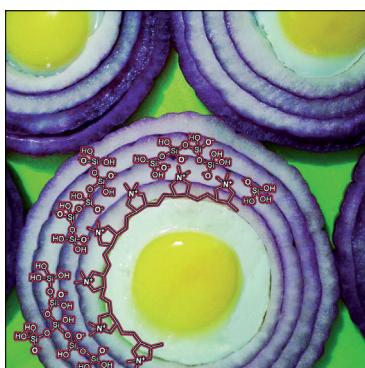


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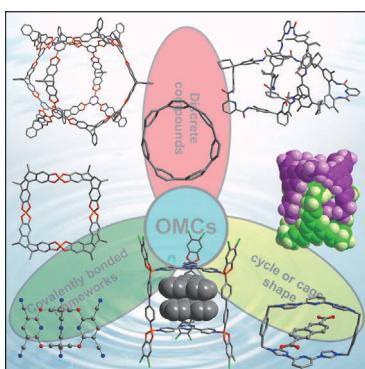
FEATURED ARTICLES

**Polyoxometalates**

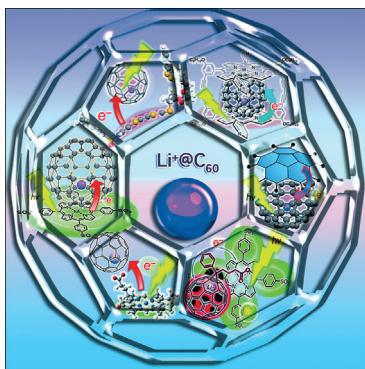
Polyoxometalates (POMs) possess higher thermal and redox stabilities in comparison with organometallic and organic catalysts and are promising candidates as photocatalysts involving multi-electron transfer steps. In their Communication on page 144 ff., featured on the Inside Cover, Noritaka Mizuno et al. report on efficient visible-light-responsive POM-based multielectron photoredox catalysis that has been achieved by the coordination of substrates to the lacuna of POM. Nitroarenes are selectively reduced, and various N-arylimines can be obtained from nitroarenes and alcohols by the one-pot photoredox catalytic procedure.

**Encapsulation**

Single-cell encapsulation holds great potential for cell-based sensors, cell therapy, tissue engineering, as well as single-cell biology. In their Communication on page 129 ff., Insung S. Choi et al. utilize a layer-by-layer cycle deposition of poly(diallyldimethylammonium chloride) and in situ silicification to encapsulate *Saccharomyces cerevisiae* individually in silica with control of shell thickness. On the Back Cover image, taken by Youngran Youn and Hoseung Lee, each onion ring represents the shell formed by one cycle of deposition and silicification.

**Macrocycles**

Organic macrocycles and cages constructed by covalent bonds are chemically robust and soluble in a range of media, and can be conveniently fabricated, as summarized by Andy Hor and co-workers in their Focus Review on page 24 ff. These bonding modes enable the design and construction of a variety of unique architectures for functional applications.

**Donor–Acceptor Systems**

The fullerene C₆₀ and its derivatives are frequently used to connect with electron donors to achieve efficient photoinduced charge separation. In their Focus Review on page 44 ff., Shunichi Fukuzumi et al. summarize the photophysical properties of lithium-ion-encapsulated fullerene (Li⁺@C₆₀) in comparison with those of C₆₀. Li⁺@C₆₀ exhibits a greatly enhanced reactivity in the photoinduced electron-transfer reduction with electron donors as compared with pristine C₆₀ due to the encapsulated lithium cation. Li⁺@C₆₀ can form stable electron donor–acceptor supramolecular complexes with characteristic electron donors in a polar solvent. Photoexcitation of such complexes results in formation of long-lived charge-separated states due to the appropriate combination of reorganization energy, driving force, and the small electronic coupling term.