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50 YEARS

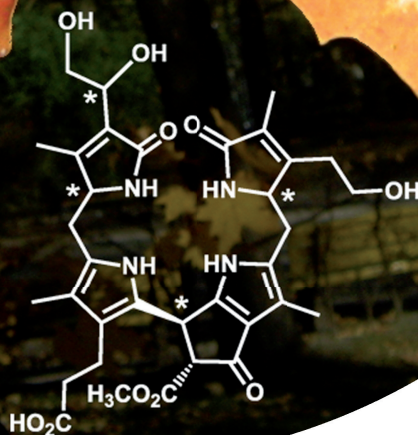
YEARS ***International Edition***



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Review by M. Iyoda et al.

Essay by E. Taarning et al.

Minireview by B. Chen et al.

Highlights: Methylations with S-Adenosylmethionine • syn-Dihydroxylation of Alkenes • Redox Behavior of Cyanide Ligands

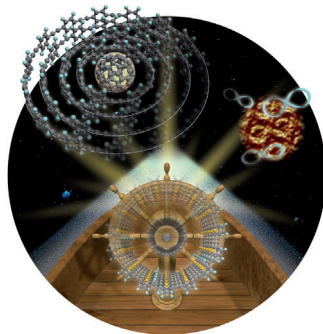


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Cover Picture

Thomas Müller, Martina Rafelsberger, Clemens Vergeiner, and Bernhard Kräutler*

The colors of autumn leaves appear when chlorophyll is broken down, a process assumed to result in certain colorless degradation products. In their Communication on page 10724 ff., B. Kräutler and co-workers report the analysis of fall leaves of Norway maple, in which the typical catabolites were not present. Instead, another colorless compound accumulated, a so-called dioxobilane, the structure of which indicates a different degradation path in the leaves of this widespread deciduous tree.

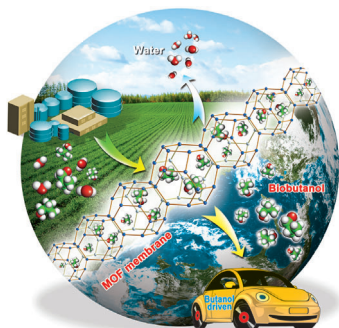
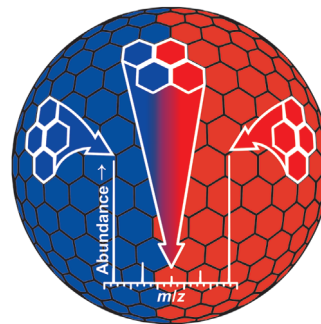


Conjugated Macrocycles

Shape-persistent π -conjugated macrocycles have interesting properties and great potential for applications. In their Review on page 10522 ff., M. Iyoda et al. summarize the synthetic methods and discuss how modification of the structure can affect the properties.

Surface Science

In their Communication on page 10554 ff., J. A. McLean, D. E. Cliffler, and co-workers observe nanoscale phase segregation of mixed thiolates on gold nanoparticles. Experimental data are obtained by a two-dimensional gas-phase separation technique.



MOF Membranes

Y.-S. Li, W.-S. Yang et al. describe in their Communication on page 10636 ff. how the incorporation of ZIF-8 nanoparticles into a polymer matrix results in an organophilic membrane for the efficient pervaporative recovery of bioalcohols from fermentation broths.