A Journal of the Gesellschaft Deutscher Chemiker

D 3461

Angewandte International Edition Chemie

www.angewandte.org

2010–49/12

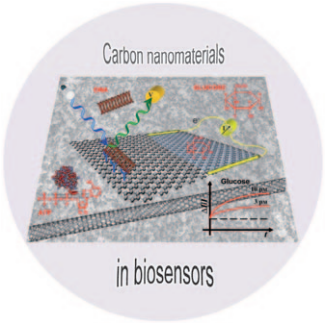
ACIEFS 49 (12) 2069–2256 (2010) · ISSN 1433–7851 · Vol. 49 · No. 12

WILEY-VCH

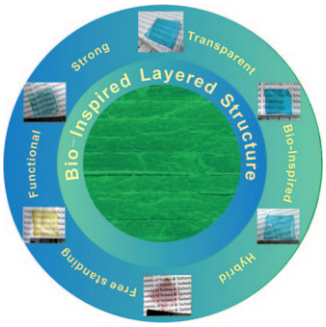
Cover Picture

Muhammet Uyanik, Takeshi Yasui, and Kazuaki Ishihara*

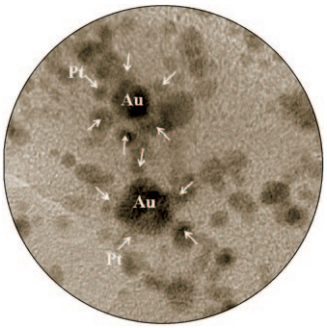
Conformationally flexible C_2-symmetric chiral iodosylarene, which has been rationally designed based on secondary *n*–σ* or hydrogen-bonding interactions, is a highly effective catalyst for the Kita oxidative spirolactonization. As described by K. Ishihara and co-workers in their Communication on page 2175 ff., this catalysis provides the highest enantioselectivity (up to 92% *ee*) among previous chiral hypervalent iodine-catalyzed reactions.



Carbon Nanomaterials
Carbon nanotubes are frequently employed in biosensors, but what about single layers of carbon atoms—the emergent material graphene? In the Review on page 2114 ff., F. Braet et al. compare the two carbon allotropes with respect to their use in biosensors.



Hybrid Composites
In their Communication on page 2140 ff., S. H. Yu and co-workers describe how the unique microstructures of seashell nacre can be mimicked by biologically inspired organic–inorganic hybrid films, which display high tensile strength.



Nanoparticle Catalysts
Nanocomposites formed from platinum nanoparticles on the surface of a larger gold nanoparticle are much more active in the oxidation of formic acid than pure platinum catalysts, as G. Yin, Y. Lin et al. show on page 2211 ff. This system shows promise in formic acid fuel-cell applications.