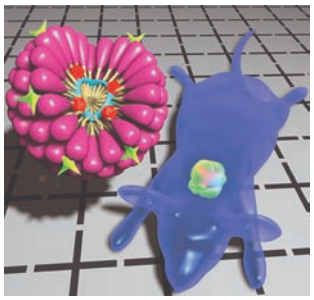
Auf diesen drei Seiten weisen wir auf wichtige aktuelle Beiträge in unseren Schwesterzeitschriften hin. Wenn Sie die Seiten online lesen, dann können Sie die Artikel mit einem Klick direkt aufrufen, ansonsten sind sie durch Eingabe der DOIs über Wiley Online Library leicht online zugänglich.


### *Nanomedicine*

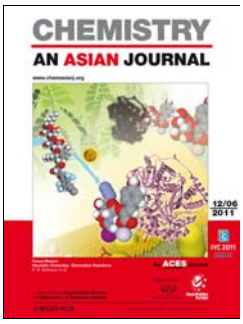
E. Gravel,* J. Ogier, T. Arnauld, N. Mackiewicz, F. Ducongé, E. Doris*

Drug Delivery and Imaging with Polydiacetylene Micelles

**Photopolymerized micelles** obtained from the self-assembly of diacetylene-containing amphiphiles have been developed for biomedical applications in the fields of imaging and drug delivery (see figure).



*Chem. Eur. J.*
DOI: **10.1002/chem.201102769**

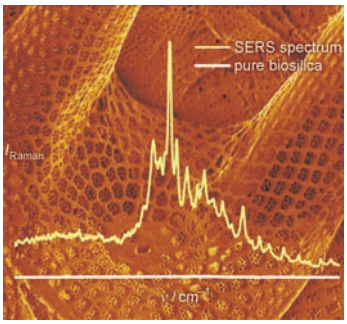



### *Nanoparticles*

A. Jantschke, A.-K. Herrmann, V. Lesnyak, A. Eychmüller, E. Brunner*

Decoration of Diatom Biosilica with Noble Metal and Semiconductor Nanoparticles (< 10 nm): Assembly, Characterization, and Applications

**Midas touch**: Diatom-templated noble metal (Ag, Pt, Au) and semiconductor (CdTe) nanoparticle arrays were synthesized by the attachment of prefabricated nanoparticles of defined size. The synthesized arrays were useful for surface-enhanced Raman spectroscopy (SERS) of components, for catalysis, and for the improvement of image quality in SEM.



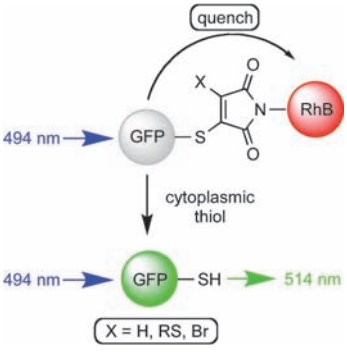

*Chem. Asian J.*
DOI: **10.1002/asia.201100563**


### *Fluorescent Probes*

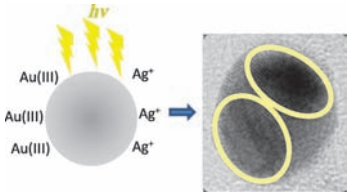
P. Moody, M. E. B. Smith, C. P. Ryan, V. Chudasama, J. R. Baker,* J. Molloy,* S. Caddick*

Bromomaleimide-Linked Bioconjugates Are Cleavable in Mammalian Cells

**Bromomaleimides are versatile scaffolds** that allow facile conjugation of thiolated biomolecules. Here we demonstrate that bromomaleimide-linked GFP–rhodamine FRET pairs cleave in the cytoplasm of mammalian cells. We believe that bromomaleimide scaffolds provide a potential core structure for prodrugs designed to release bioactive cargo following cell internalisation.




*ChemBioChem*
DOI: **10.1002/cbic.201100603**



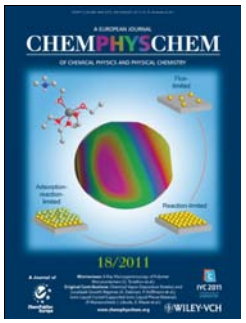

## Optical Nanomaterials

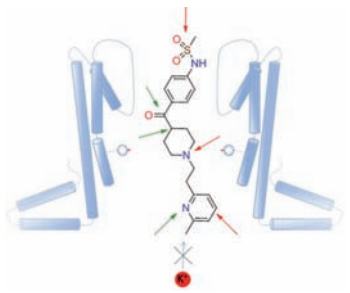
J. Xu, S. Sahu, L. Cao, P. Anilkumar, K. N. Tackett, II, H. Qian, C. E. Bunker,* E. A. Guliants, A. Parenzan, Y.-P. Sun*

Carbon Nanoparticles as Chromophores for Photon Harvesting and Photoconversion

**Undercover**: Carbon nanoparticles have recently emerged as a unique class of optical nanomaterials. This study demonstrates the chromophoric functions of suspended small carbon nanoparticles in harvesting visible photons for the reductive coating of the nanoparticles with silver and gold (see picture) and, as a result, the preparation of unique carbon-metal core–shell nanostructures.

*ChemPhysChem*
DOI: **10.1002/cphc.201100640**



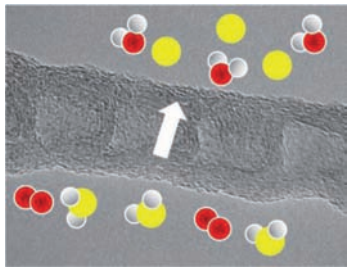
## Cardiotoxicity

M. Vilums, J. Overman, E. Klaasse, O. Scheel, J. Brussee, A. P. IJzerman*

Understanding of Molecular Substructures that Contribute to hERG $K^+$ Channel Blockade: Synthesis and Biological Evaluation of E-4031 Analogues

**Go-go dancing with hERG!** Evaluation of derivatives of E-4031, a class III antiarrhythmic agent, provides practical information on the molecular determinants for hERG $K^+$ channel blockade. Chemical features that are likely to increase affinity for the hERG $K^+$ channel can be omitted (→) during drug development; likewise, structural elements that reduce affinity (→) could be included to potentially circumvent cardiotoxicity related attrition at a later stage.

*ChemMedChem*
DOI: **10.1002/cmdc.201100366**

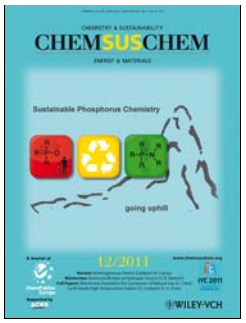
## Nanocatalysis

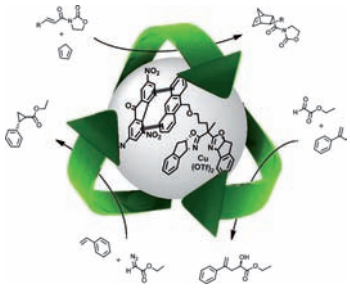
K. Chizari, A. Deneuve, O. Ersen, I. Florea, Y. Liu, D. Edouard, I. Janowska, D. Begin, C. Pham-Huu*

Nitrogen-Doped Carbon Nanotubes as a Highly Active Metal-Free Catalyst for Selective Oxidation

**Nanotubes say goodbye to $H_2S$**: Nitrogen-doped carbon nanotubes (N-CNTs) are synthesized by using a chemical vapor deposition method under a mixture of $C_2H_6/NH_3$/Ar with $Fe/Al_2O_3$ as a growth catalyst. N-CNTs can be used as a metal-free catalyst for the selective oxidation of $H_2S$ into elemental sulfur. The desulfurization activity can be further improved by supporting the N-CNT on a macroscopic host structure such as SiC foam.

*ChemSusChem*
DOI: **10.1002/cssc.201100276**



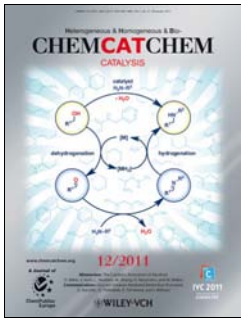
## Asymmetric Catalysis

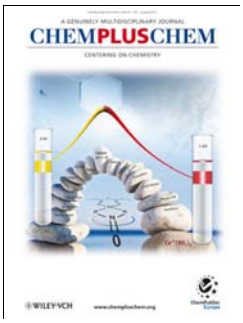
D. Didier, E. Schulz*

Recycling Chiral Copper Bis(oxazoline) Complexes in an Original Multireaction Procedure

**Precipitation–the solution?** The recovery of a chiral copper(II) bis(oxazoline) catalyst by charge-transfer complexation and subsequent precipitation allows its efficient reuse in ene and cyclopropanation reactions for up to ten successive catalytic cycles and affords the desired products in high yields and enantioselectivities. The same catalyst batch is also successfully reused in three different asymmetric transformations in an original multireaction procedure.

*ChemCatChem*
DOI: **10.1002/cctc.201100250**



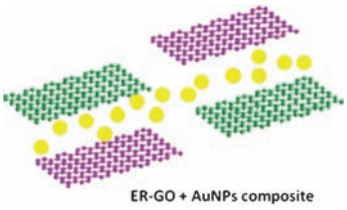



## Graphene Nanomaterials

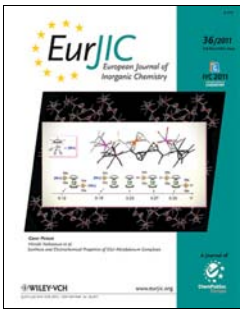
L. Buglione, A. Bonanni, A. Ambrosi, M. Pumera*

Gold Nanospacers Greatly Enhance the Capacitance of Electrochemically Reduced Graphene

**Capacity management**: Gold nanoparticle (AuNP) spacers have been used to increase the capacitance of electrochemically reduced graphene (ER-GO) to values of approximately 174 $Fg^{-1}$. By the careful and systematic optimization of nanospacers loadings, the capacitance can be dramatically enhanced because these spacers prevent the graphene sheets from stacking (see picture: yellow = AuNP, green = purple = ER-GO).




*ChemPlusChem*
DOI: **10.1002/cplu.201100016**

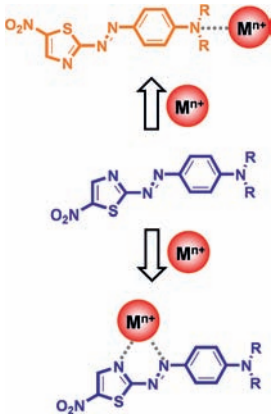



## Chromogenic Cation Sensors

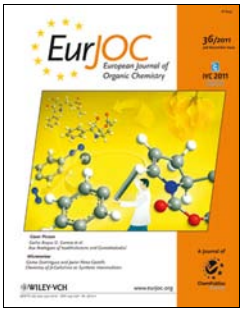
T. Ábalos, M. Moragues, S. Royo, D. Jiménez, R. Martínez-Máñez,* J. Soto, F. Sancenón, S. Gil, J. Cano

Dyes That Bear Thiazolylazo Groups as Chromogenic Chemosensors for Metal Cations

A family of dyes that contain a thiazolylazo group and several macrocyclic cavities with different ring sizes and type and number of heteroatoms has been synthesised and characterized. Studies of protonation and coordination behaviour in the presence of metal cations have been carried out. The interaction was also studied by using density functional theory quantum mechanical calculations.




*Eur. J. Inorg. Chem.*
DOI: **10.1002/ejic.201100834**

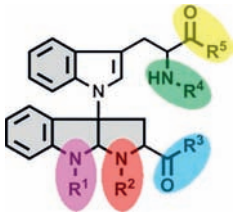



## Orthogonal Protecting Groups

P. Ruiz-Sanchis, S. A. Savina, G. A. Acosta, F. Albericio,* M. Álvarez*

Orthogonal Protecting Groups in the Synthesis of Tryptophanyl-Hexahydropyrroloindoles

Several tryptophanyl-hexahydropyrroloindoles (Trp-HPI) with four or five orthogonal protecting groups have been synthesized. This polyheterocyclic system constitutes a scaffold for many natural products that have recently been isolated.



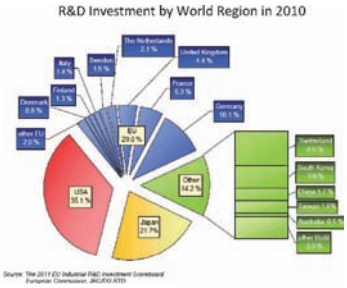
*Eur. J. Org. Chem.*
DOI: **10.1002/ejoc.201101057**


## Industrial R & D Investment

ChemViews magazine

Industrial R & D Investment

Worldwide Research & Development (R & D) investments of the top R & D investing companies increased by 4 % in 2010 to € 456 bn. R & D investments of European Union (EU) and US companies were the most affected by the crisis in 2009. EU companies are lagging behind in R & D investment compared with competitors from the US and some Asian competitors.




*ChemViews magazine*
DOI: **10.1002/chemv.201000147**