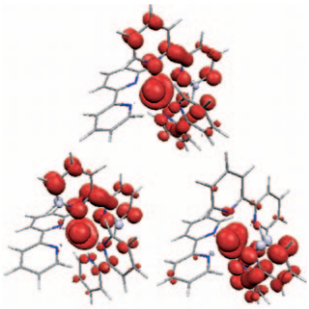
On these pages, we feature a selection of the excellent work that has recently been published in our sister journals. If you are reading these pages on a computer, click on any of the items to read the full article. Otherwise please see the DOIs for easy online access through Wiley InterScience.

Photophysics

M.-E. Moret, I. Tavernelli,* M. Chergui, U. Rothlisberger

Electron Localization Dynamics in the Triplet Excited State of $[Ru(bpy)_3]^{2+}$ in Aqueous Solution

Electrons that can leap frog! A solvent-induced breaking of the coordination symmetry with consequent localization of the photoexcited electron on one or two bipyridine units in $[Ru(bpy)_3]^{2+}$ is reported (bpy = 2,2′-bipyridine). Frequent electronic "hops" between these "pairs" of ligands are observed with a characteristic time of approximately half a picosecond.



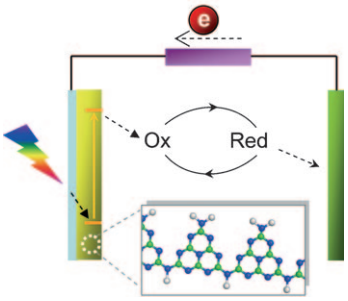
Chem. Eur. J.
DOI: **10.1002/chem.201000184**

Photovoltaics

Y. Zhang,* M. Antonietti

Photocurrent Generation by Polymeric Carbon Nitride Solids: An Initial Step towards a Novel Photovoltaic System

Polymeric carbon nitride, which is cheap, amenable to mass preparation and chemical modification, and highly stable against oxidation up to 550 °C in air, has been exemplified to be potentially promising as a photoactive material in directly converting solar light into electricity. It would not only strengthen the emerging applications of the kaleidoscopic carbon nitride solids, but also contribute to a more open discussion in photovoltaics.



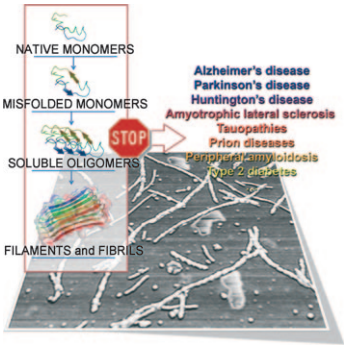
Chem. Asian J.
DOI: **10.1002/asia.200900685**

Proton Aggregation

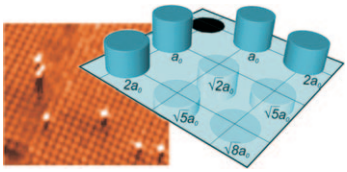
M. Bartolini, V. Andrisano*

Strategies for the Inhibition of Protein Aggregation in Human Diseases

Folding correctly: Protein aggregation diseases are human disorders characterized by aberrant formation of protein aggregates for which no effective disease-modifying treatment is currently available. Recent advances in understanding of pathological mechanisms have launched an increasing number of new rational strategies for drug discovery.



ChemBioChem
DOI: **10.1002/cbic.200900666**



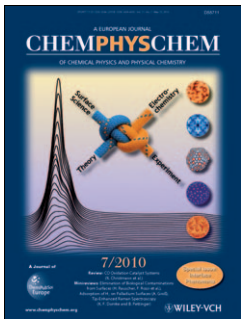
ChemPhysChem
DOI: **10.1002/cphc.200900939**

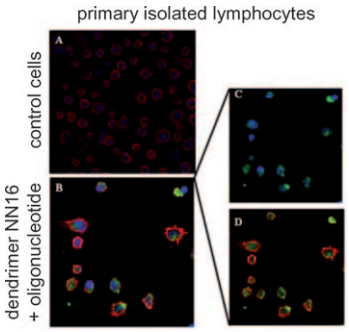
Electrochemical Interfaces

T. Tansel, A. Taranovskyy, O. M. Magnussen*

In Situ Video-STM Studies of Adsorbate Dynamics at Electrochemical Interfaces

Viewing atomic interactions: The motion of sulfur atoms, adsorbed on Cu(100) electrodes in HCl solution, has been followed by in situ video-rate STM (see picture). These measurements provide direct data on the adsorbate-adsorbate and adsorbate-substrate interactions of species at electrochemical interfaces.





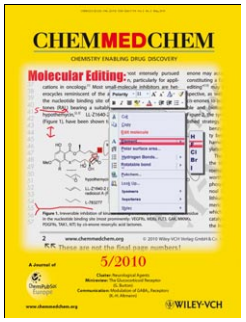
ChemMedChem
DOI: **10.1002/cmdc.201000029**

Anti-infective Agents

T. Gonzalo, M. I. Clemente, L. Chonco, N. D. Weber, L. Díaz, M. J. Serramía, R. Gras, P. Ortega, F. J. de la Mata, R. Gómez, L. A. Lopez-Fernández, M. Á. Muñoz-Fernández, J. L. Jiménez*

Gene Therapy in HIV-Infected Cells to Decrease Viral Impact by Using an Alternative Delivery Method

The NN16 dendrimer is capable of transfecting genetic material to a wide array of cell types crucial for HIV infection, thereby resulting in low cytotoxicity. We monitored the cellular uptake of oligonucleotides transfected via NN16, identifying it as an efficient vector in gene therapy by its significant reduction of HIV protein release and specific inhibition of gene expression in HIV-infected cells.



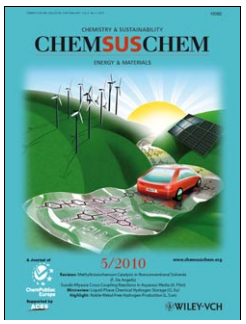
ChemSusChem
DOI: **10.1002/cssc.201000023**

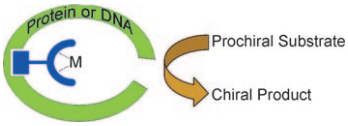
Hydrogen Storage

H.-L. Jiang, S. K. Singh, J.-M. Yan, X.-B. Zhang, Q. Xu*

Liquid-Phase Chemical Hydrogen Storage: Catalytic Hydrogen Generation under Ambient Conditions

The search for applicable hydrogen storage materials is extremely important owing to the diversified merits of hydrogen energy. Lithium and sodium borohydride (aq.), ammonia borane (aq.), hydrous hydrazine, and formic acid have been extensively investigated as promising hydrogen storage materials based on their relatively high hydrogen content. In this Minireview we briefly survey the research progresses in catalytic hydrogen generation from these liquid-phase chemical hydrogen storage materials.





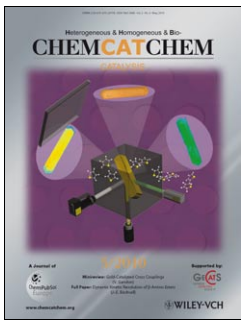
ChemCatChem
DOI: **10.1002/cctc.201000011**

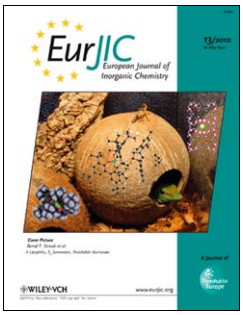
Biocatalysis

F. Rosati, G. Roelfes*

Artificial Metalloenzymes

The best of both worlds: Artificial metalloenzymes have emerged as a promising approach to merge the attractive properties of homogeneous and biocatalysis. In this Review, the design and optimization strategies and the catalytic scope of artificial metalloenzymes are discussed, with a particular focus on the role of the second coordination sphere.



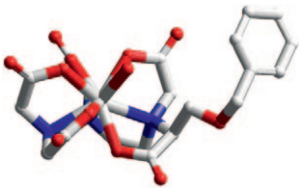


MRI-Relevant Complexes

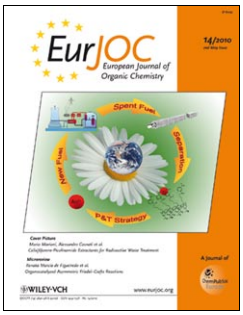
Z. Baranyai,* Z. Pálinkás, F. Uggeri, E. Brücher

Equilibrium Studies on the Gd^{3+}, Cu^{2+} and Zn^{2+} Complexes of BOPTA, DTPA and DTPA-BMA Ligands: Kinetics of Metal-Exchange Reactions of $[Gd(BOPTA)]^{2-}$

On the basis of the stability constants determined in 0.15 M NaCl, the selectivity of ligands derived from DTPA for Gd^{III} over Zn^{II} follows the order BOPTA > DTPA > DTPA-BMA. The rates of metal-exchange reactions of $[Gd(BOPTA)]^{2-}$ with Cu^{II}, Zn^{II}, and Eu^{III} are 30–90% lower than the rates of similar reactions with $[Gd(DTPA)]^{2-}$.



Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.200901261**

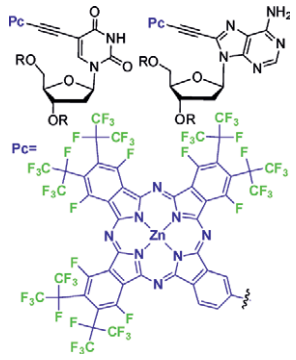


Fluorinated Drugs

B. Das, E. Tokunaga, M. Tanaka, T. Sasaki, N. Shibata*

Perfluoroisopropyl Zinc Phthalocyanines Conjugated with Deoxyribonucleosides: Synthesis, Photophysical Properties and In Vitro Photodynamic Activities

Deoxyribonucleoside-appended perfluoroisopropyl-substituted zinc phthalocyanines have been efficiently synthesized. Photophysical investigations and preliminary biological experiments with the conjugates have revealed interesting properties that make them suitable for use in the photodynamic therapy of cancer.



Eur. J. Org. Chem.
DOI: **10.1002/ejoc.201000179**