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 Online Library.

Natural Products

C. C. Hughes, W. Fenical*

Antibacterials from the Sea

Cures from the Ocean: Marine organisms synthesize complex metabolites with antibacterial properties (see picture) to fend off co-occurring microbes. Representatives from each of five classes of natural products (ribosomal and non-ribosomal peptides, polyketides, alkaloids, and terpenes) isolated as new antibacterial metabolites from the marine organisms are described (picture courtesy of X. Alvarez-Micó).

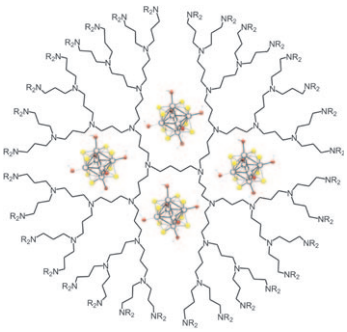
Chem. Eur. J.
DOI: **10.1002/chem.201001279**

Nanomaterials

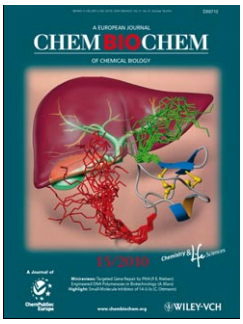
M. Kubeil, H. Stephan,* H.-J. Pietzsch, G. Geipel, D. Appelhans, B. Voit, J. Hoffmann, B. Brutschy, Y. V. Mironov, K. A. Brylev, V. E. Fedorov

Sugar-Decorated Dendritic Nanocarriers: Encapsulation and Release of the Octahedral Rhenium Cluster Complex $[Re_6S_8(OH)_6]^{4-}$

Catch and release! The encapsulation and release of nanometer-sized anionic rhenium cluster complexes in biocompatible maltose-decorated dendrimers have been studied in detail through the application of different physico-chemical methods. The determined properties suggest the possibility for the development of the next generation of dendritic nanocarriers with specific targeting of destined tissue for therapeutic treatments.



Chem. Asian J.
DOI: **10.1002/asia.201000284**

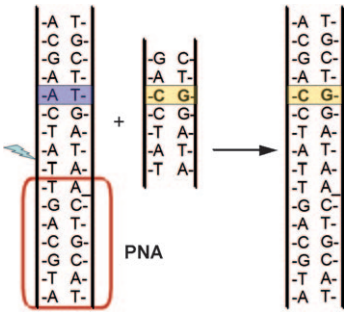


DNA Recognition

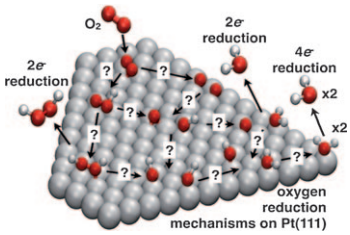
P. E. Nielsen*

Targeted Gene Repair Facilitated by Peptide Nucleic Acids (PNA)

Make or break: Recent developments in exploiting peptide nucleic acids (PNA) for specific target-directed cellular and in vivo gene repair (see figure) are discussed in terms of possibilities and challenges.



ChemBioChem
DOI: **10.1002/cbic.201000346**



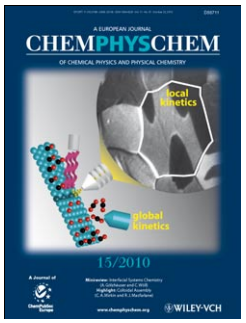
ChemPhysChem
DOI: **10.1002/cphc.201000286**

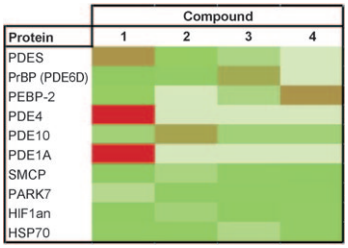
Surface Chemistry

J. A. Keith, G. Jerkiewicz, T. Jacob*

Theoretical Investigations of the Oxygen Reduction Reaction on Pt(111)

Modeling an elusive system: A current review on the mechanism of the oxygen reduction reaction (ORR) on Pt(111) (see figure) is presented. Beginning with an abridged introduction to fundamental computational chemistry methods, the authors investigate the multiple-pathway ORR and the influences of solvation, thermal energy (e.g. entropy), and electrode potential on each step. Finally, a discussion about the true nature of the electrode surface is presented.





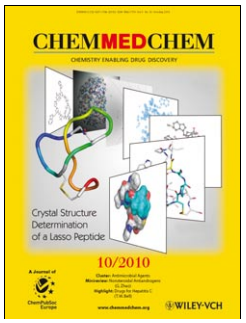
ChemMedChem
DOI: **10.1002/cmdc.201000303**

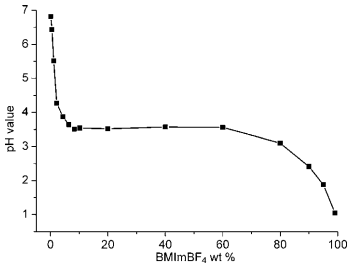
Chemical Proteomics

R. Raijmakers, P. Dadvar, S. Pelletier, J. Gouw, K. Rumpel, A. J. R. Heck*

Target Profiling of a Small Library of Phosphodiesterase 5 (PDE5) Inhibitors using Chemical Proteomics

An interactome experience! A small library of phosphodiesterase 5 (PDE5) inhibitors was immobilized and used to map interacting proteins in rat testis tissue. The relative binding of the identified proteins was determined using quantitative mass spectrometry, showing that this chemical proteomics approach allows for the easy analysis of the differential interactome of bioactive small molecules.





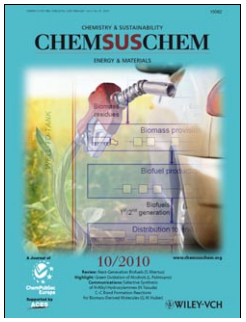
ChemSusChem
DOI: **10.1002/cssc.201000075**

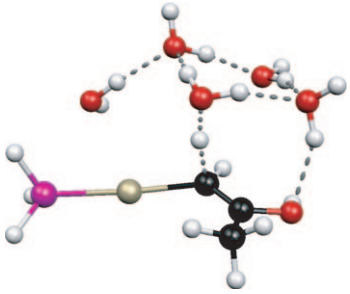
Ionic Liquids

X. Cui, S. Zhang, F. Shi,* Q. Zhang, X. Ma, L. Lu, Y. Deng*

The Influence of the Acidity of Ionic Liquids on Catalysis

Reactions performed in ionic liquids with BF_4^- as anion progress under strongly acidic conditions. The acidity of some air- and moisture-stable ionic liquids is explored and its effect on catalytic reactions is studied. The function of these ionic liquids in some traditional acid-catalyzed reactions is also tested, and the results merit a reconsideration of their influence on catalytic reactions and use in other applications.





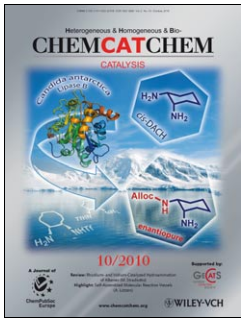
ChemCatChem
DOI: **10.1002/cctc.201000136**

Gold Catalysis

C. M. Krauter, A. S. K. Hashmi,* M. Pernpointner

A New Insight into Gold(I)-Catalyzed Hydration of Alkynes: Proton Transfer

Solvent molecules have a significant impact on the mechanism of the gold(I)-catalyzed hydration of alkynes as they enable an efficient proton transfer step. As an alternative to such a water-assisted proton transfer, the counterion can serve as a proton shuttle. However, it seems likely that solvent molecules play a vital role for the overall reaction mechanism in either case.

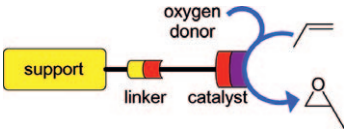


Heterogenized Epoxidation Catalysts

S. Shylesh, M. Jia, W. R. Thiel*

Recent Progress in the Heterogenization of Complexes for Single-Site Epoxidation Catalysis

Heterogenization of single-site catalysts gives catalytically active materials with well defined active sites and allows separation from the reaction mixture by simple filtration. This microreview summarizes the recent developments in the heterogenization of molybdenum, tungsten, manganese and rhenium olefin epoxidation catalysts.



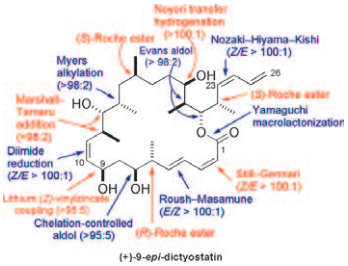
Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.201000582**

Asymmetric Total Synthesis

C. Zanato, L. Pignataro, A. Ambrosi, Z. Hao, C. Gennari*

A Highly Stereoselective Total Synthesis of (+)-9-*epi*-Dictyostatin

Eleven stereogenic centers and four stereogenic double bonds were obtained with a high level of stereocontrol in the total synthesis of (+)-9-*epi*-dictyostatin, a diastereomer of the antimitotic marine-sponge-derived macrolide (–)-dictyostatin.



Eur. J. Org. Chem.
DOI: **10.1002/ejoc.201001018**

