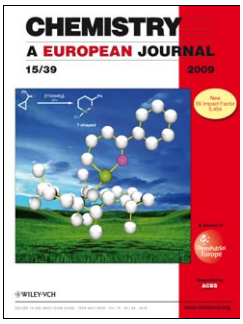
On these pages, we feature a selection of the excellent work that has recently been published in our sister journals. If you are reading these pages on a computer, click on any of the items to read the full article. Otherwise please see the DOIs for easy online access through Wiley InterScience.

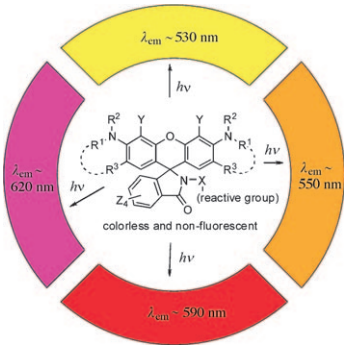


Rhodamines

V. N. Belov,* M. L. Bossi, J. Fölling, V. P. Boyarskiy, S. W. Hell*

Rhodamine Spiroamides for Multicolor Single-Molecule Switching Fluorescent Nanoscopy

A good resolution: New colorless rhodamine spiroamides (see figure) for fluorescence nanoscopy have been designed and used as photoactivable labels in (co)localization studies and to image various bio-objects with a precision of a few tens of nanometers. Multicolor staining, good photoactivation, large number of emitted photons, and selective chemical binding were achieved.



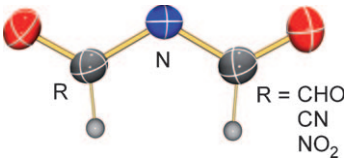
Chem. Eur. J.
DOI: **10.1002/chem.200901333**

Amides

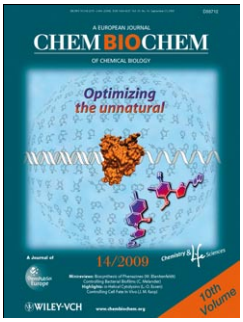
H. Brand, J. Martens, P. Mayer, A. Schulz,* M. Seibald, T. Soller

Salts and Ionic Liquids of Resonance Stabilized Amides

ILs built tough: The synthesis, structure, and bonding of alkali salts of resonance stabilized amides are discussed on the basis of experimental and theoretical data. Additionally, several novel ionic liquids based on the resonance stabilized amides have been prepared and are fully characterized. These ionic liquids are neither heat nor shock sensitive, are thermally stable up to over 200 °C, and can be prepared easily in large quantities.



Chem. Asian J.
DOI: **10.1002/asia.200900181**

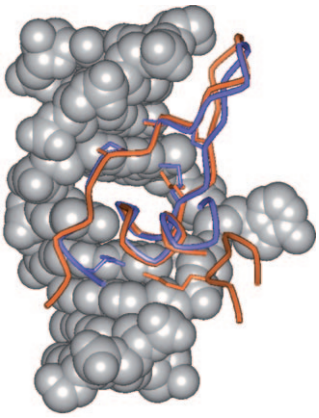


Molecular Evolution

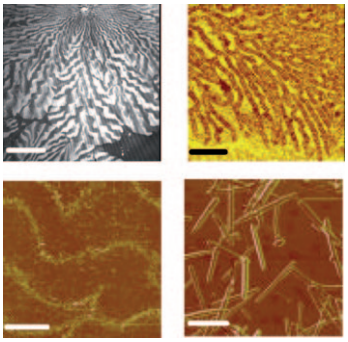
H. Elsawy, S. Podobinschi, S. Chahar, A. Jeltsch*

Transition from EcoDam to T4Dam DNA Recognition Mechanism without Loss of Activity and Specificity

Kissing cousins: The EcoDam and T4Dam DNA methyltransferase are related, but deviate in their contact to the first base pair of the target sequence. We have successfully "transplanted" T4Dam DNA recognition into EcoDam and show that one intermediate of this transition is fully active; this indicates that a smooth evolutionary pathway exists between EcoDam and T4Dam. The EcoDam to T4Dam transition might have been driven by selective pressure towards increased catalytic activity.



ChemBioChem
DOI: **10.1002/cbic.200900441**



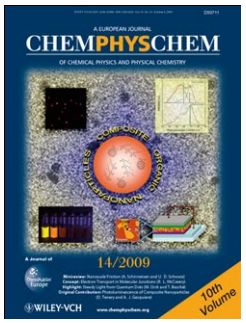
ChemPhysChem
DOI: **10.1002/cphc.200900539**

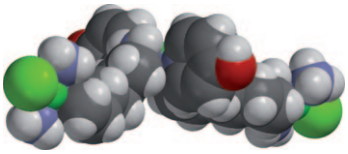
Nanostructures

L. Philosof-Mazor, R. Volinsky, J. Jopp, P. Blumberg, H. Rapaport, V. E. Marquez,* R. Jelinek*

Lipid-Modulated Pharmacophore Nanorods Assembled at the Air/Water Interface

Biomimetic pharmacophores deposited at the air/water interface self-assemble into distinct crystalline nanostructures (see figure). The shapes and dimensions of the nanostructures are significantly modulated by the lipid environments in mixed lipid/DAG-lactone monolayers.





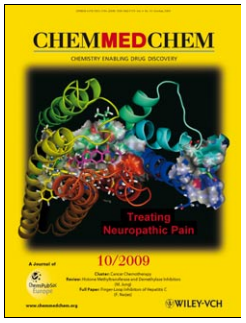
ChemMedChem
DOI: **10.1002/cmdc.200900267**

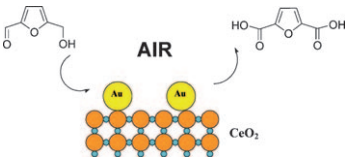
Bioinorganic Chemistry

M. Farhad, J. Q. Yu, P. Beale, K. Fisher, F. Huq*

Studies on the Synthesis and Activity of Three Tripalladium Complexes Containing Planaramine Ligands

Organometalic drugs: Significant antitumor activity can be introduced in trinuclear palladium complexes when their reactivity is lowered by the presence of sterically hindered ligands such as 2-hydroxypyridine, 3-hydroxypyridine and 4-hydroxypyridine bound to the central palladium ion. This hypothesis was tested by the synthesis and evaluation of three novel tripalladium complexes containing planaramine ligands against ovarian cancer cell lines.





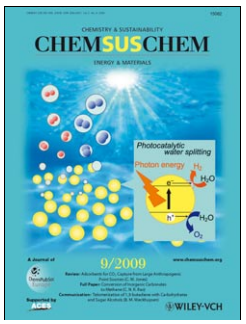
ChemSusChem
DOI: **10.1002/cssc.200900137**

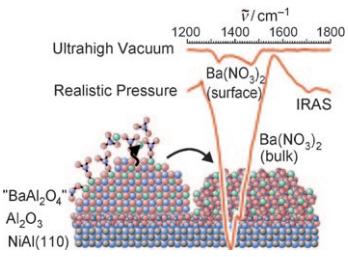
Biomass

O. Casanova, S. Iborra, A. Corma*

Biomass into Chemicals: Aerobic Oxidation of 5-Hydroxymethyl-2-furfural into 2,5-Furandicarboxylic Acid with Gold Nanoparticle Catalysts

Cerious chemistry: 5-hydroxymethyl-2-furfural is selectively converted into 2,5-furandicarboxylic acid in water, using air as oxidant, under mild conditions, and with gold nanoparticles supported on nanoparticulate ceria (Au-CeO_2) as catalyst. The catalyst is stable and reusable. Substrate degradation is strongly diminished and catalyst life is increased by performing the reaction in two temperature steps. The catalytic performance of Au-CeO_2 surpasses that of other gold nanoparticle catalysts (e.g., Au-TiO_2, Au-Fe_2O_3).





ChemCatChem
DOI: **10.1002/cctc.200900137**

Absorption Spectroscopy

A. Desikusumastuti, S. Schernich, M. Happel, M. Sobota, M. Laurin, J. Libuda*

Model NO_x Storage Materials at Realistic NO_2 Pressures

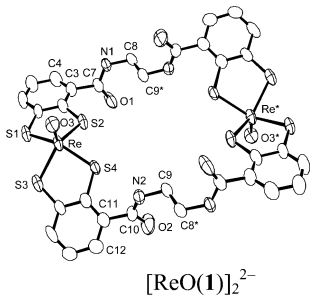
Never-ending storage: Model systems for NO_x storage and reduction are investigated by in situ time-resolved infrared reflection absorption spectroscopy (IRAS) from ultrahigh vacuum conditions up to realistic NO_2 pressures. The formation of bulk nitrate phases requires very high NO_2 exposures and realistic pressure conditions.

Supramolecular Chemistry

J. S. Gancheff, R. Q. Albuquerque, A. Guerrero-Martínez, T. Pape, L. De Cola, F. E. Hahn*

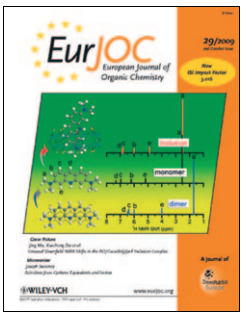
A Dinuclear Double-Stranded Oxido Complex of Re^{V} with a Bis(benzene-*o*-dithiolato) Ligand

The reaction of $[ReOCl_3(PPh_3)_2]$ with 1,2-bis(2,3-dimercaptobenzamido)ethane (H_4-**1**) leads to the formation of a novel double-stranded dinuclear oxido Re^{V} complex: $[ReO(\mathbf{1})]_2^{2-}$. DFT calculations were performed to gain insight into the structural and electronic properties of the complex anion.



$[ReO(\mathbf{1})]_2^{2-}$

Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.200900496**

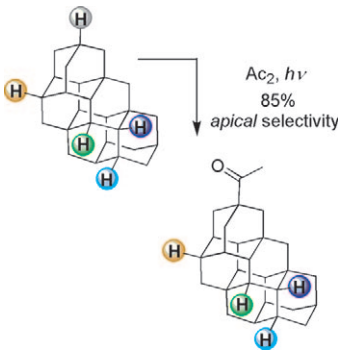


Nanodiamonds

A. A. Fokin,* P. A. Gunchenko, A. A. Novikovsky, T. E. Shubina, B. V. Chernyaev, J. E. P. Dahl, R. M. K. Carlson, A. G. Yurchenko, P. R. Schreiner*

Photoacetylation of Diamondoids: Selectivities and Mechanism

Despite many nonequivalent C–H bonds present in the structures of hydrogen-terminated nanodiamonds (diamondoids), photoacetylation with diacetyl gives apical derivatives almost exclusively as a result of the higher polarizabilities of the structures in the apical molecular direction.



Eur. J. Org. Chem.
DOI: **10.1002/ejoc.200900600**