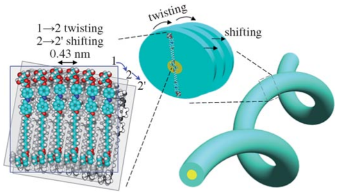
On these pages, we feature a selection of the excellent work that has recently been published in our sister journals. If you are reading these pages on a computer, click on any of the items to read the full article. Otherwise please see the DOIs for easy online access through Wiley InterScience.

Self-Assembly

T.-F. Lin, R.-M. Ho,* C.-H. Sung, M.-S. Ho, C.-S. Hsu*

Twist Ferrocene Wires from Self-assembly of Chiral Rod–Coil Organometallics

Let's twist again! A chiral rod–coil organometallic material, FC11, has been synthesized and shows liquid-crystalline behavior. By taking advantage of the self-assembly of the chiral Schiff based rod–coil molecule that is end-capped with ferrocene, the self-assembled superstructure can serve as a template to form iron-rich spiral superstructures (see graphic).



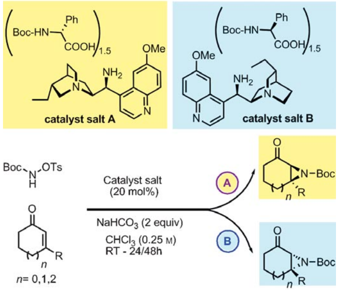
Chem. Eur. J.
DOI: **10.1002/chem.201000772**

Organocatalysis

F. De Vincentiis, G. Bencivenni, F. Pesciaioli, A. Mazzanti, G. Bartoli, P. Galzerano, P. Melchiorre*

Asymmetric Catalytic Aziridination of Cyclic Enones

Access to aziridine antipodes: The first catalytic method for the asymmetric aziridination of cyclic enones is described (see scheme). The presented organocatalytic strategy is effective for a wide variety of substrates, thereby providing fast access to both of the antipodes of the aziridines with very high enantiomeric purity.



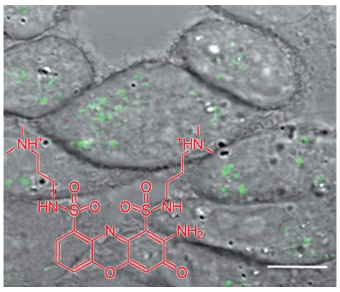
Chem. Asian J.
DOI: **10.1002/asia.201000040**

Biocatalysis

F. Bruyneel, L. D'Auria, O. Payen, P. J. Courtoy, J. Marchand-Brynaert*

Live-Cell Imaging with Water-Soluble Aminophenoxazinone Dyes Synthesised through Laccase Biocatalysis

Light 'em up: Water-soluble aminophenoxazine dyes were used as valuable compounds in live-cell imaging. These heterocycles were produced by using an enzymatic synthetic strategy. Among the compounds tested, one in particular gave excellent results as an endocytic marker; it performed in a similar manner to Lucifer Yellow.



ChemBioChem
DOI: **10.1002/cbic.201000145**

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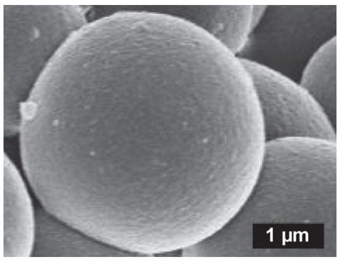


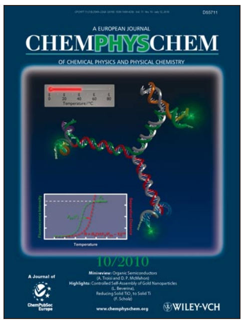
ChemPhysChem
DOI: **10.1002/cphc.201000188**

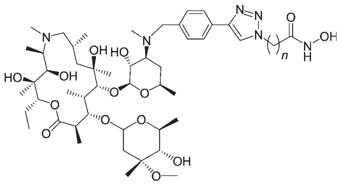
Microfluidics

V. Chokkalingam, B. Weidenhof, M. Krämer, S. Herminghaus, R. Seemann, W. F. Maier*

Template-free Preparation of Mesoporous Silica Spheres through Optimized Microfluidics

Droplet-based microfluidics is used to perform sol–gel reactions. The chemicals are dispensed, mixed, and pre-processed inside a microfluidic device allowing for long operation times without any clogging. Using this approach and optimizing all reaction and processing parameters, mesoporous silica particles with a very high surface area of 820 $m^2 g^{-1}$ and a narrow pore radius distribution of around 2.4 nm are obtained.





IC$_{50}$ values

	7 (*n*=6)	**16** (*n*=9)
HDAC1	13.9 nM	226.7 nM
pf-HDAC-1	29 nM	182 nM
P. falciparum	0.098 mg mL^{-1}	0.883 mg mL^{-1}
L. donovani	NA	3.54 mg mL^{-1}

ChemMedChem
DOI: **10.1002/cmdc.201000087**

Antiparasitic Agents

W. Guerrant, S. C. Mwakwari, P. C. Chen, S. I. Khan, B. L. Tekwani,* A. K. Oyelere*

A Structure–Activity Relationship Study of the Antimalarial and Antileishmanial Activities of Nonpeptide Macrocyclic Histone Deacetylase Inhibitors

Histone deacetylase inhibitors (HDACi) cause a diverse range of responses in biological systems. The depth of the antiparasitic capabilities of macrocyclic HDACi was determined against malarial and leishmanial pathogens. Antiparasitic activities of macrocyclic HDACi derived from macrolide skeletons are dependent on the length (n) of the spacer group that separates their zinc-binding and surface-recognition moieties. Antimalarial activities peak when $n=6$, whereas antileishmanial activities are optimum when $n=8$–9. This observation could facilitate the identification of other HDACi that are more selective for either parasite.

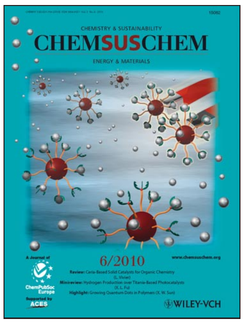
ChemSusChem
DOI: **10.1002/cssc.200900254**

Aqueous-Phase Reforming

A. V. Kirilin, A. V. Tokarev, E. V. Murzina, L. M. Kustov, J.-P. Mikkola,* D. Yu. Murzin*

Reaction Products and Transformations of Intermediates in the Aqueous-Phase Reforming of Sorbitol

Aqueous-phase reforming of sorbitol over a Pt/Al_2O_3 catalyst is investigated. Parameters such as the sorbitol feed rate and temperature are studied. An analytical approach based on analysis of the gas and liquid phases as well as the total carbon content is developed to identify intermediates. The formation of the majority of identified compounds is explained, and a plausible reaction network for the conversion of sorbitol and transformation of intermediates is proposed.



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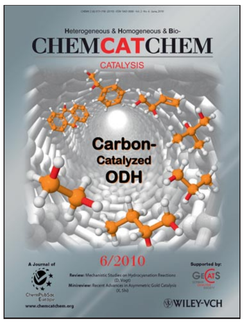
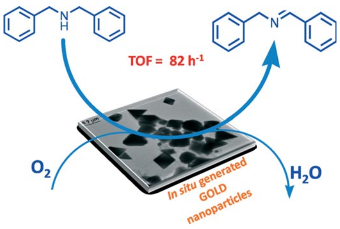


Gold Catalysis

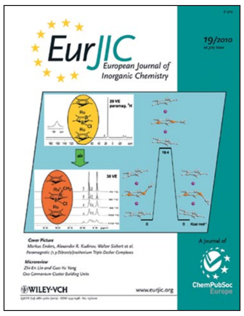
L. Aschwanden, T. Mallat, M. Maciejewski, F. Krumeich, A. Baiker*

Development of a New Generation of Gold Catalysts for Amine Oxidation

New gold dream: Outstandingly active Au/CeO_2 catalysts have been developed for the aerobic oxidation of amines to imines. The gold nanoparticles are generated in an organic medium in situ prior to the oxidation reaction. Various halogen-containing gold salts can be applied in the presence of nanoceria and the amine substrate acts as the reducing agent. A crucial point is the synergism between the vacuum-treated (200 °C) ceria and gold.



ChemCatChem
DOI: **10.1002/cctc.201000092**

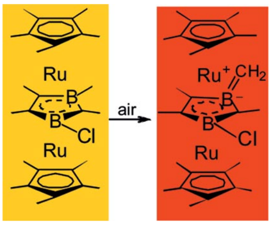


Triple-Decker Complexes

E. V. Mutseneck, H. Wadepohl, M. Enders,* A. R. Kudinov,* W. Siebert*

Paramagnetic (1,3-Diborolyl)ruthenium Triple-Decker Complexes and Transformation into Diamagnetic Complexes Having Bridging 1,3-Diborafulvene Ligands

efluxing of a mixture of $[Cp^*RuCl]_4$ and pentamethyl-2,3-dihydro-1,3-diborole in thf leads to the paramagnetic triple-decker complex. Exposed to air it slowly looses a hydrogen atom in CH_2Cl_2 to give the diamagnetic triple-decker complex with a bridging dihydro-diborafulvene derivative whose unique $B=CH_2$ group is strongly bent toward one of the ruthenium atoms.



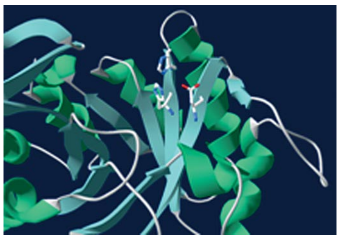
Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.200901232**

Artificial Metalloenzymes

J. Podtetenieff, A. Taglieber, E. Bill, E. J. Reijerse, M. T. Reetz*

An Artificial Metalloenzyme: Creation of a Designed Copper Binding Site in a Thermostable Protein

Guided by nature: A designed binding site comprising the His/His/Asp motif for Cu^{II} complexation has been constructed in a robust protein by site-specific mutagenesis (see picture). The artificial metalloenzyme catalyzes an enantioselective Diels–Alder reaction.



Angew. Chem. Int. Ed.
DOI: **10.1002/anie.201002106**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