## SPOTLIGHTS ...



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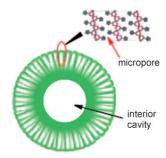


#### Hollow Microspheres

J. Huo, L. Wang,\* E. Irran, H. J. Yu, J. M. Gao, D. S. Fan, B. Li, J. J. Wang, W. B. Ding, A. M. Amin, C. Li, L. Ma

# Hollow Ferrocenyl Coordination Polymer Microspheres with Micropores in Shells Prepared by Ostwald Ripening

From the inside out: Hollow ferrocenyl coordination polymer microspheres with microporous shells were prepared by a convenient and template-free approach. An Ostwald ripening mechanism is responsible for the formation of hollow cavities. The hierarchically hollow coordination polymer microspheres have potential applications in catalysis, drug delivery, and hydrogen storage.



hollow microsphere with microporous shell

Angew. Chem. Int. Ed. DOI: 10.1002/anie.201004745

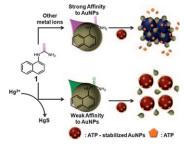


#### Colorimetric Sensors

S. Kim, N. H. Lee, S. H. Seo, M. S. Eom, S. Ahn, M. S. Han\*

Selective Colorimetric Sensor for Hg<sup>2+</sup> Ions Using a Mixture of Thiourea Derivatives and Gold Nanoparticles Stabilized with Adenosine Triphosphate

The mercury prize: A highly selective and sensitive unmodified gold-nanoparticle (AuNP)-based colorimetric sensor for  $Hg^{2+}$  ions in aqueous media uses the  $Hg^{2+}$ -promoted desulfurization reaction of a thiourea derivative and the reactivity of a thiourea derivative to gold nanoparticles. This sensor also allows a quantitative assay of the analyte in a neutral aqueous solution, down to a concentration of  $10^{-7} \,\mathrm{m}$ .



Chem. Asian J.

DOI: 10.1002/asia.201000483

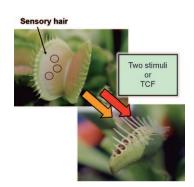


#### Polysaccharides -

M. Ueda,\* T. Tokunaga, M. Okada, Y. Nakamura, N. Takada, R. Suzuki, K. Kondo

# Trap-Closing Chemical Factors of the Venus Flytrap (*Dionaea muscipulla* Ellis)

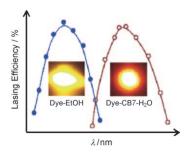
"Memory" has been observed in the leaf closure of the insectivorous Venus flytrap (*Dionaea muscipula*). The rapid closure of the traps requires two stimuli within 30 s on the sensory hairs of their internal surface. We found that *Dionaea* has two endogenous chemical factors that induce the closure of traps without stimuli.



ChemBioChem

DOI: 10.1002/cbic.201000392

## ... ON OUR SISTER JOURNALS



*ChemPhysChem* DOI: **10.1002/cphc.201000532** 

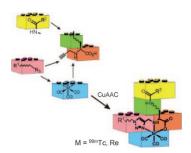
#### Fluorescent dyes

J. Mohanty,\* K. Jagtap, A. K. Ray,\* W. M. Nau,\* H. Pal

#### Molecular Encapsulation of Fluorescent Dyes Affords Efficient Narrow-band Dye Laser Operation in Water

Supramolecular dye lasers: Two practically useful narrow-band dye laser systems in aqueous solution have been demonstrated, which are based on the addition of small amounts of the macrocycle cucurbit[7]uril as stabilizing agent (see picture). In comparison to conventional dye–EtOH systems, the novel supramolecular dye systems are not only similarly efficient with complementary tuning ranges, but possess superior thermo-optic characteristics and unmatched beam profiles.





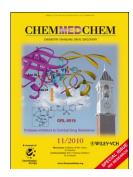
ChemMedChem
DOI: 10.1002/cmdc.201000342

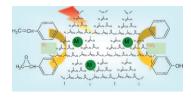
#### Imaging Agents

T. L. Mindt,\* H. Struthers, B. Spingler, L. Brans, D. Tourwé, E. García-Garayoa, R. Schibli\*

#### Molecular Assembly of Multifunctional <sup>99m</sup>Tc Radiopharmaceuticals Using "Clickable" Amino Acid Derivatives

**Extended "click-to-chelate".** The use of side-chain-functionalized  $N(\alpha)$ -propargyl amino acid precursors enables the concurrent one-pot "click" assembly of multifunctional conjugates that contain a  $^{99m}Tc(CO)_3$  chelate for SPECT and two different biological and/or chemical entities.





*ChemSusChem* DOI: **10.1002/cssc.201000149** 

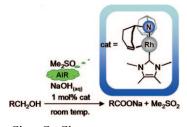
#### Photocatalysis -

Z. Ding, X. Chen, M. Antonietti, X. Wang\*

#### Synthesis of Transition Metal-Modified Carbon Nitride Polymers for Selective Hydrocarbon Oxidation

Modification of graphitic carbon nitride  $(g-C_3N_4)$  photocatalyst with transition metals is achieved with a simple soft-chemical approach using dicyandiamide and metal chloride as precursors. Feand Cu-modified carbon nitrides are shown to be active for the hydroxylation of benzene to phenol with  $H_2O_2$ , whereas Co- and Femodified samples are shown to be active for the epoxidation of styrene with  $O_2$ .





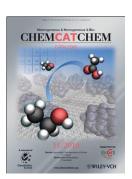
*ChemCatChem*DOI: **10.1002/cctc.201000100** 

#### Homogeneous Catalysis -

S. Annen, T. Zweifel, F. Ricatto, H. Grützmacher\*

# Catalytic Aerobic Dehydrogenative Coupling of Primary Alcohols and Water to Acids Promoted by a Rhodium(I) Amido N-Heterocyclic Carbene Complex

As good acid gets: With a Rh<sup>I</sup> amido olefin complex with an N-heterocyclic carbene ligand as catalyst, the chemoselective aerobic oxidation of primary alcohols to the corresponding carboxylic acids proceeds in aqueous alkaline medium with good to moderate yields under mild conditions. Dimethylsulfoxide serves as stoichiometric co-oxidant.



### **SPOTLIGHTS**

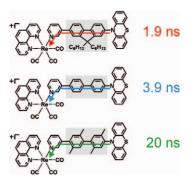


#### Electron Transfer

M. E. Walther, J. Grilj, D. Hanss, E. Vauthey, O. S. Wenger\*

Photoinduced Processes in Fluorene-Bridged Rhenium-Phenothiazine Dyads - Comparison of Electron Transfer Across Fluorene, Phenylene, and Xylene Bridges

The kinetics of a 15  $\rm \mathring{A}$  electron-transfer step from phenothiazine to a photoexcited rhenium complex depends strongly on the covalent linker between the two redox partners.



Eur. J. Inorg. Chem.
DOI: 10.1002/ejic.201000645

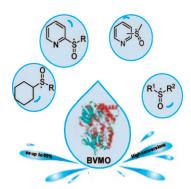


#### Enzymatic Catalysis -

A. Rioz-Martínez, G. de Gonzalo, D. E. Torres Pazmiño, M. W. Fraaije, V. Gotor\*

# **Enzymatic Synthesis of Novel Chiral Sulfoxides Employing Baeyer-Villiger Monooxygenases**

A large variety of enantiopure sulfoxides have been obtained by using Baeyer–Villiger monooxygenase catalyzed oxidation in aqueous media under mild reaction conditions. Some reaction parameters were studied to improve the catalytic efficiency of these enzymes.



Eur. J. Org. Chem.

DOI: 10.1002/ejoc.201000890

