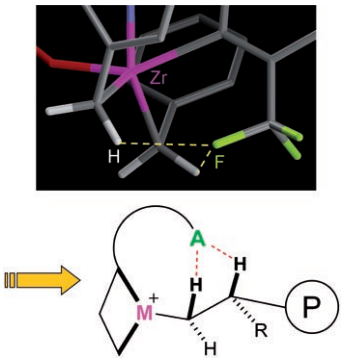
Ligand–Polymer Interactions

M. C. W. Chan*

Weak Attractive Ligand–Polymer and Related Interactions in Catalysis and Reactivity: Impact, Applications, and Modeling

Chem. Asian J.
DOI: **10.1002/asia.200700226**

Feel the attraction: The concept of weak attractive ligand–polymer interactions, which is new in olefin-polymerization reactions, is a marriage of two important themes: catalyst design and supramolecular chemistry/recognition. Unlike "cooperative" ligand–substrate contacts that are devoted to activation, weak ligand–polymer interactions are conceived as stabilizing influences. A = H-bond acceptor.



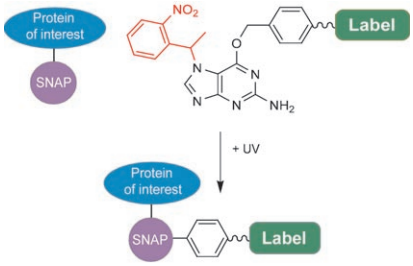
Protein Labeling

S. Banala, A. Arnold, K. Johnsson*

Caged Substrates for Protein Labeling and Immobilization

ChemBioChem
DOI: **10.1002/cbic.200700472**

Spotlight on protein labeling. The labeling of fusion proteins of O^6-alkylguanine-DNA alkyltransferase (AGT or SNAP-tag) is controlled with both spatial and temporal resolution by caging the substrate with the 1-(2-nitrophenyl)ethyl group. The substrates can be uncaged simply by illumination. The light-controlled dimerization and light-directed immobilization of SNAP-tag fusion proteins is shown.

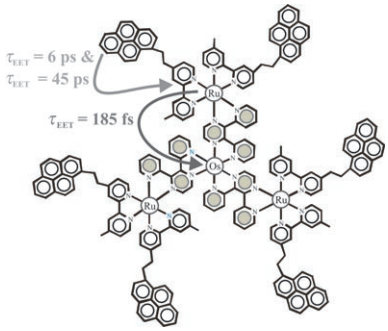


Dendrimers

J. Larsen, F. Puntoriero, T. Pascher, N. McClenaghan, S. Campagna, E. Å. P. V. Sundström*

Extending the Light-Harvesting Properties of Transition-Metal Dendrimers

ChemPhysChem
DOI: **10.1002/cphc.200700539**



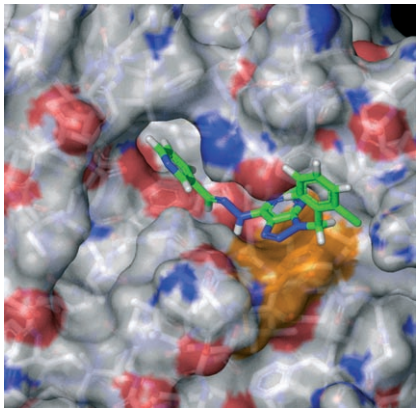
Focusing energy: The dynamics of the energy-transfer process that takes place within an Os/Ru transition-metal complex after excitation with UV light are studied. Since energy transfer is exclusively directed to the Os core, the studied complex (see figure) is an ideal candidate for light-harvesting antennas employed in artificial photosynthesis.

Virtual Screening

M. Feder,* E. Purta, L. Koscinski, S. Čubrilo, G. Maravic Vlahovicek, J. M. Bujnicki

Virtual Screening and Experimental Verification to Identify Potential Inhibitors of the ErmC Methyltransferase Responsible for Bacterial Resistance against Macrolide Antibiotics

ChemMedChem
DOI: **10.1002/cmdc.200700201**



Erm methyltransferases are the major resistance factor to MLS_B antibiotics. We used a structure-based virtual screening approach to identify several new ErmC′ inhibitors. The analysis of docking models of the ErmC′ inhibitors identified herein and comparison with a compound previously identified by high-throughput screening suggests a strategy to generate potent leads.

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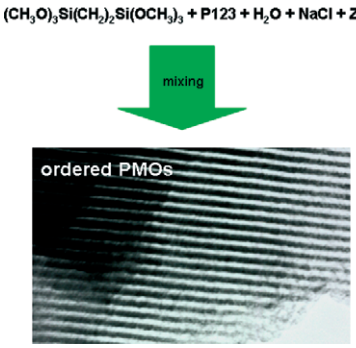
Highly ordered Zr-containing periodic mesoporous organosilicas (ZrPMO) were successfully synthesized, for the first time, by employing a $ZrOCl_2$/NaCl combination as the promoting agent; the addition of extra amounts of acid was not needed throughout the synthetic process.

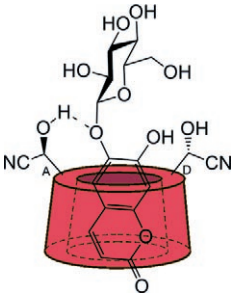


Hybrid Mesostructures

S.-R. Zhai, S. S. Park, M. Park, M. H. Ullah, C.-S. Ha*

Direct Synthesis of Zr-Containing Hybrid Periodic Mesoporous Organosilicas with Tunable Zirconium Content

Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.200700775**



An artificial enzyme was shown to be able to hydrolyse toxic coumarin glycosides.

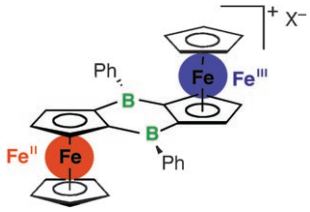
Artificial Enzymes

J. Bjerre, E. H. Nielsen, M. Bols*

Hydrolysis of Toxic Natural Glucosides Catalyzed by Cyclodextrin Dicyanohydrins

Eur. J. Org. Chem.
DOI: **10.1002/ejoc.200700954**

Do ferrocenes communicate? Distinct intervalence charge-transfer bands for the mixed-valent cation $[(FeCp)_2(\mu\text{-}C_{10}H_6\text{-}(BPh)_2)]^+$ (see graphic) in solution indicate that the rigid diboron bridge strongly promotes electronic communication between the ferrocene moieties. A pronounced counterion dependence of the Mössbauer results in the solid state can be traced back to subtle structural differences and crystal-lattice effects.

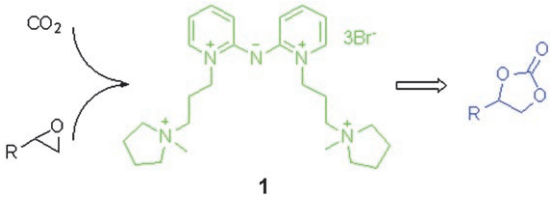


Mixed-Valent Compounds

K. Venkatasubbaiah, A. Doshi, I. Nowik, R. H. Herber,* A. L. Rheingold, F. Jäkle*

Examination of the Mixed-Valence State of the Doubly Boron-Bridged Diferrocene Cation $[(FeCp)_2\{\mu\text{-}C_{10}H_6(BPh)_2\}]^+$

Chem. Eur. J.
DOI: **10.1002/chem.200701219**



1

A quick fix of CO_2: Ionic liquid **1** functions both as efficient organocatalyst and reaction medium in the addition reaction of epoxides with carbon dioxide under mild conditions to give cyclic carbonates.

The new ionic liquid is robust and can be recycled and reused continuously without showing any significant loss in catalytic activity.

Carbon Dioxide Fixation

W.-L. Wong, P.-H. Chan, Z.-Y. Zhou, K.-H. Lee, K.-C. Cheung, K.-Y. Wong*

A Robust Ionic Liquid as Reaction Medium and Efficient Organocatalyst for Carbon Dioxide Fixation

ChemSusChem
DOI: **10.1002/cssc.200700097**

Auf diesen beiden Seiten weisen wir auf wichtige aktuelle Beiträge in unseren Schwesterzeitschriften hin. Wenn Sie die Seiten online lesen, dann können Sie die Artikel mit einem Klick direkt aufrufen, ansonsten sind sie durch Eingabe der DOIs über Wiley InterScience leicht online zugänglich.

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