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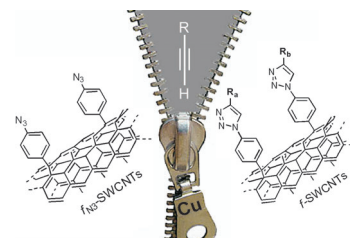


Nanotubes

G. Tuci, C. Vinattieri, L. Luconi, M. Ceppatelli, S. Cicchi, A. Brandi, J. Filippi, M. Melucci, G. Giambastiani*

“Click” on Tubes: a Versatile Approach towards Multimodal Functionalization of SWCNTs

Decorate your tubes: An original approach towards the preparation of flexible substrates for convenient and mild carbon nanotube (CNT) homo- and heterodecoration is provided. The relatively mild “click” conditions and the CuAAC high functional group tolerance make this functionalization approach a promising system to bring small/medium organic/organometallic frameworks (or mixtures thereof) on the CNT board (see figure).



Chem. Eur. J.
DOI: 10.1002/chem.201200650

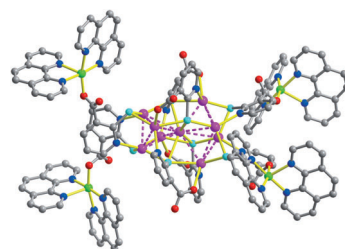


Cluster Compounds

D. Sun,* L. Zhang, Z. Yan, D. Sun*

Stepwise Construction of a $\text{Ag}_9\text{--Cu}^{\text{II}}_4$ Heterometallic Cluster Incorporating Two Unusual Vertex-Shared Trigonal-Bipyramidal Silver Polyhedra

One step at a time: A novel tridecanuclear $\text{Ag}_9\text{--Cu}^{\text{II}}_4$ heterometallic cluster comprising four $[\text{Cu}(\text{phen})_2]^{2+}$ units on the periphery and one interior $[\text{Ag}_9(\text{mna})_8]^{7-}$ cluster was synthesized in a stepwise manner and characterized. The interior $[\text{Ag}_9(\text{mna})_8]^{7-}$ cluster contains two unusual vertex-shared trigonal-bipyramidal silver polyhedra.



Chem. Asian J.
DOI: 10.1002/asia.201200181

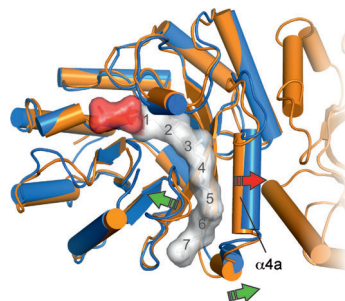


Unnatural Amino Acids

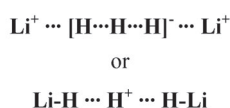
D. Peterhoff, H. Zellner, H. Guldán, R. Merkl, R. Sterner, P. Babinger*

Dimerization Determines Substrate Specificity of a Bacterial Prenyltransferase

Working together: Many enzymes are active only when assembled as multimeric complexes, whereas a few are active both as monomers and multimers—but with different substrate specificity. We identified the dimer interface of a bacterial heptaprenylglyceryl phosphate synthase and showed that oligomer formation is crucial for binding the long-chain substrate.



ChemBioChem
DOI: 10.1002/cbic.201200127



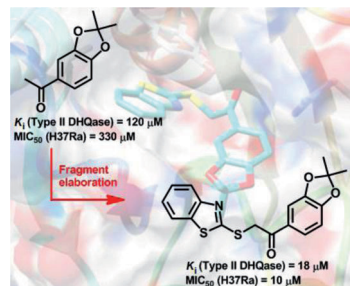
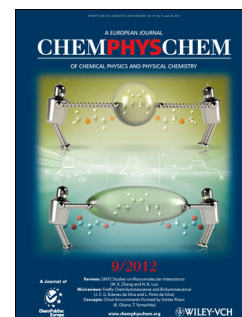
ChemPhysChem
DOI: 10.1002/cphc.201200182

Computational Chemistry

S. J. Grabowski, R. Hoffmann*

Stabilizing H_3^- : Or Are We Stabilizing a Proton?

Gestalt: The $(\text{LiHHHLi})^+$ cation can be looked at in two ways – as a stabilized linear H_3^- anion. Or as two LiH molecules stabilizing a proton. It is not certain if this interesting pentatomic cation can be detected, for it is computed to have only marginal stability with respect to decomposition to its only likely escape channel, to a complex of H_2 and the LiHLi^+ ion.



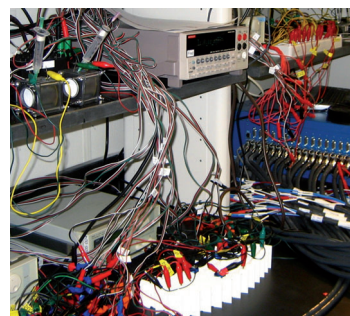
ChemMedChem
DOI: 10.1002/cmdc.201100606

Antibacterial Agents

A. T. Tran, N. P. West, W. J. Britton, R. J. Payne*

Elucidation of *Mycobacterium tuberculosis* Type II Dehydroquinase Inhibitors using a Fragment Elaboration Strategy

Extend to improve: Novel inhibitors of *Mycobacterium tuberculosis* type II dehydroquinase were discovered through a fragment elaboration approach. A number of low-micromolar inhibitors of the enzyme were elucidated which possess significant activity against *M. tuberculosis* in vitro.



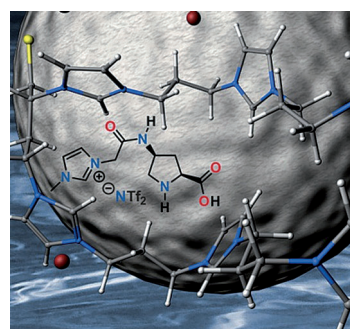
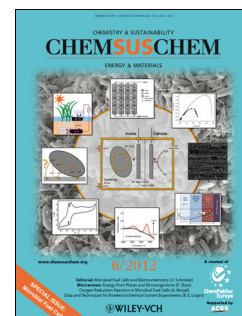
ChemSusChem
DOI: 10.1002/cssc.201100604

Microbial Fuel Cells

B. E. Logan*

Essential Data and Techniques for Conducting Microbial Fuel Cell and other Types of Bioelectrochemical System Experiments

Electromicrobiology: The study of microbial fuel cells (MFCs) and other types of bioelectrochemical systems have great potential for renewable energy production. Certain data are essential for these systems, such as electrode-specific surface areas, solution conductivities, power densities, and electrochemical characterization. This Minireview describes how results can be better conveyed through the full description of materials, the use of proper controls, and electrochemical analyses.



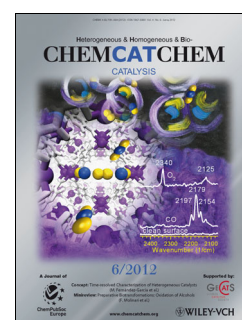
ChemCatChem
DOI: 10.1002/cctc.201200125

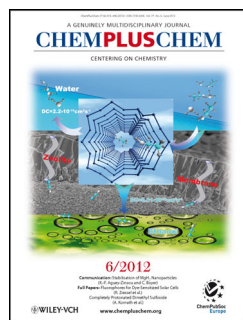
Asymmetric Synthesis

E. Montroni, M. Lombardo,* A. Quintavalla, C. Trombini, M. Gruttadauria,* F. Giacalone

A Liquid–Liquid Biphasic Homogeneous Organocatalytic Aldol Protocol Based on the Use of a Silica Gel Bound Multilayered Ionic Liquid Phase

Double duty: A liquid–liquid biphasic homogeneous protocol for the asymmetric aldol reaction is proposed, based on the use of a *cis*-ion-tagged proline dissolved in the liquid film of a multilayered ionic liquid, covalently bonded to silica gel. The resulting catalytically active material acts as a catalyst reservoir during the reaction stage and as a catalyst sponge during workup, allowing for several reuses with high cumulative productivity values up to 523.



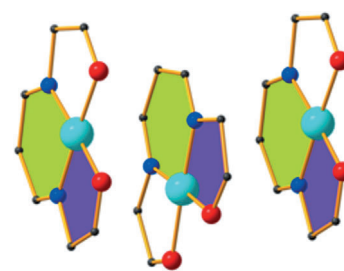


Metal–Organic Interactions

K. F. Konidaris, A. C. Tsipis,* G. E. Kostakis*

Shedding Light on Intermolecular Metal–Organic Ring Interactions by Theoretical Studies

Nice as pie: The nature of a metal–organic ring interactions between Cu^{II} and malonamide- N,N' -diacetic acid have been investigated using density functional calculations. All compounds form almost planar five- and six-membered chelated rings which are stacked similarly to π – π aromatic systems, in the absence of any aromatic ring (see figure).



ChemPlusChem
DOI: 10.1002/cplu.201200018

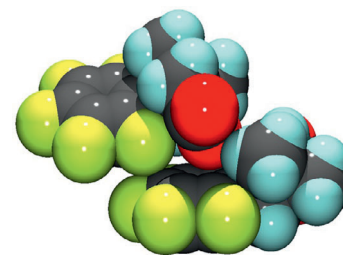


Anion– π Interactions

M. Giese, M. Albrecht,* K. Wiemer, G. Kubik, A. Valkonen, K. Rissanen

Weak Intermolecular Anion– π Interactions in Pentafluorobenzyl-Substituted Ammonium Betaines

A series of betaines bearing pentafluorobenzyl groups was synthesized and investigated with respect to intra- and intermolecular interactions in the solid state. The carboxylic end of betaine **5a** interacts with the electron-deficient arene of a neighbouring molecule in the solid phase.



Eur. J. Inorg. Chem.
DOI: 10.1002/ejic.201200184

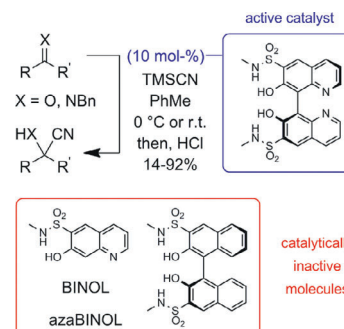


Organocatalysis

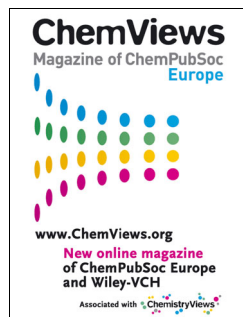
S. M. Sephton, C. Wang, L. N. Zakharov, P. R. Blakemore*

Silylcyanation of Aldehydes, Ketones, and Imines Catalyzed by a 6,6'-Bis-sulfonamide Derivative of 7,7'-Dihydroxy-8,8'-biquinolyl (azaBINOL)

6,6'-Bis(methylaminosulfonyl)-7,7'-dihydroxy-8,8'-biquinolyl catalyzes the addition of trimethylsilyl cyanide to aldehydes, ketones, and N -benzylaldimines to give the expected cyanohydrin and Strecker adducts following desilylation. Related compounds lacking any one of the defining structural features of the biquinolyl failed to promote the same reaction in the absence of additives.



Eur. J. Org. Chem.
DOI: 10.1002/ejoc.201200333



ACHEMA Exhibition

V. Koester

Thomas Scheuring on Organizing the ACHEMA Exhibition

ACHEMA is the trend-setting technology summit for chemical engineering, environmental protection and biotechnology. Due to the DECHEMA's recent reorganization, ACHEMA will be organized by the newly founded DECHEMA Ausstellungs-GmbH. CEO Dr. Thomas Scheuring talks about what the reorganization means for this year's ACHEMA and future events.



ChemViews magazine
DOI: 10.1002/chemv.201200041