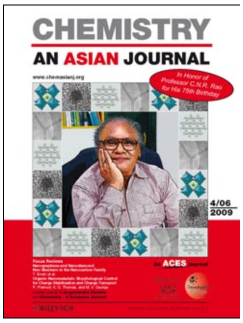
Spotlights ...

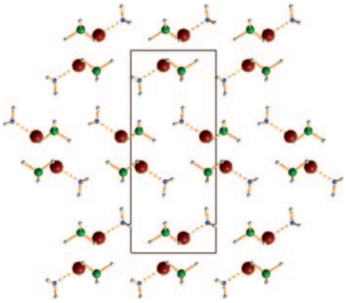


Ammonia Storage

S. R. Johnson, W. I. F. David,* D. M. Royse, M. Sommariva, C. Y. Tang, F. P. A. Fabbiani, M. O. Jones, P. P. Edwards*

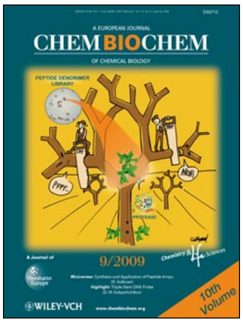
The Monoammoniate of Lithium Borohydride, $Li(NH_3)BH_4$: An Effective Ammonia Storage Compound

Store it up: The ammoniate, $Li(NH_3)BH_4$, has been prepared and fully characterized by Raman and NMR spectroscopy and X-ray powder diffraction. The potential for its use as an ammonia store and a comparison to other ammonia storage materials is discussed.



Chem. Asian J.

DOI: **10.1002/asia.200900051**

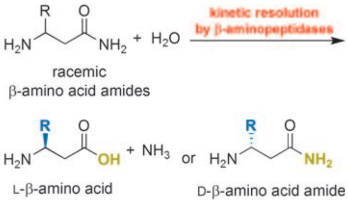


Enzyme Catalysis

T. Heck, D. Seebach, S. Osswald, M. K. J. ter Wiel, H.-P. E. Kohler,* B. Geueke

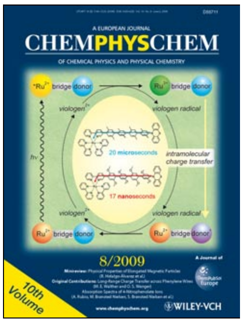
Kinetic Resolution of Aliphatic β-Amino Acid Amides by β-Aminopeptidases

Access to enantiopure β-amino acids: β-Aminopeptidases are hydrolases that possess the unique ability to cleave N-terminal β-amino acids from peptides and amides. Hydrolysis of racemic β-amino acid amides catalyzed by these enzymes displays enantioselectivity with strong preference for substrates with the L-configuration, and gives access to various aliphatic β-amino acids of high enantiopurity.



ChemBioChem

DOI: **10.1002/cbic.200900184**

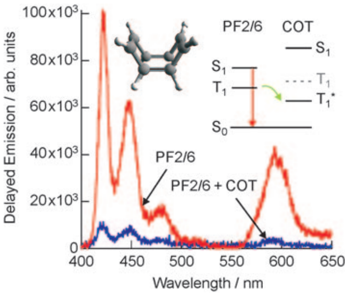


Conjugated Polymers

S. Schols,* A. Kadashchuk, P. Heremans, A. Helfer, U. Scherf

Triplet Excitation Scavenging in Films of Conjugated Polymers

Nonvertical triplet energy transfer in solid conjugated polymer films is demonstrated for the first time using 1,3,5,7-cyclooctatetraene, a compound that can efficiently quench the phosphorescence of polyfluorene without affecting its fluorescence. The results suggest that nonvertical triplet scavengers might be promising candidates for controlling the triplet concentration in fluorescent high-brightness organic devices.



ChemPhysChem

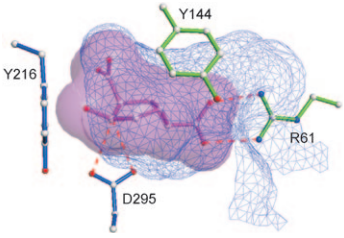
DOI: **10.1002/cphc.200900054**

Neurological Agents

L. Lundström,* B. Kuhn, J. Beck, E. Borroni, J. G. Wettstein, T. J. Woltering, S. Gatti

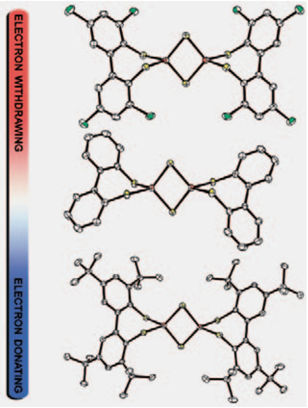
Mutagenesis and Molecular Modeling of the Orthosteric Binding Site of the mGlu2 Receptor Determining Interactions of the Group II Receptor Antagonist ^3H-HYDIA

Binding of the mGlu2/3 antagonist HYDIA in the closed conformation model of mGlu2 causes repulsive interactions with Y216 in lobe II of the binding pocket, preventing closure of the VFT.



ChemMedChem

DOI: **10.1002/cmdc.200900028**



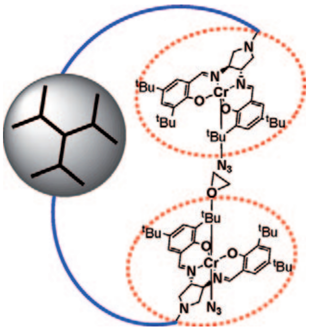
Biomimetic [2Fe-2S] Clusters

J. Ballmann, S. Dechert, S. Demeshko, F. Meyer*

Tuning Electronic Properties of Biomimetic [2Fe-2S] Clusters by Ligand Variations

Unusually stable biomimetic [2Fe-2S] complexes with 2,2′-dithiobiphenyl capping ligands have been developed, where variations of backbone substituents (Cl, H, *t*Bu) allow to modulate the electronic situation at the cluster core. This has been probed by a variety of spectroscopic and analytical methods (X-ray diffraction, UV/Vis and Mössbauer spectroscopy, SQUID analysis, cyclic voltammetry).

Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.200900101**



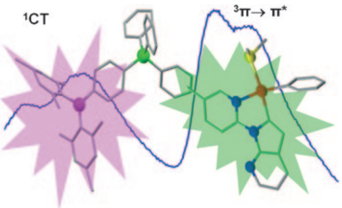
Cooperative Bimetallic Catalysis

J. Keilitz, R. Haag*

Intramolecular Acceleration of Asymmetric Epoxide Ring-Opening by Dendritic Polyglycerol Salen–Cr$^{\text{III}}$ Complexes

To support the cooperative bimetallic mechanism of the ring-opening of *meso*-epoxides with TMSN$_3$, symmetrical salen–Cr$^{\text{III}}$ complexes were immobilized on hyperbranched polyglycerol. Further investigations were performed to understand the influence of the length of the linker between polymer and catalyst. Higher *ee* values were obtained with longer linkers.

Eur. J. Org. Chem.
DOI: **10.1002/ejoc.200900241**



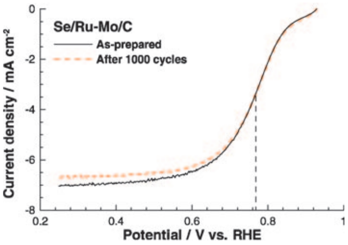
Dual Emission

Z. M. Hudson, S.-B. Zhao, R.-Y. Wang, S. Wang*

Switchable Ambient-Temperature Singlet–Triplet Dual Emission in Nonconjugated Donor–Acceptor Triarylboron–Pt$^{\text{II}}$ Complexes

Double the fun! Singlet–triplet dual emission at ambient temperature has been achieved in compounds containing a triarylboron acceptor and an *N*-(2′-pyridyl)-7-azaindolyl donor group bridged by a tetrahedral Si linker (see figure). Pt$^{\text{II}}$ chelation and chelate-mode switching from *N*,*N* to *N*,*C* have been found to greatly enhance phosphorescent emission. Furthermore, both singlet and triplet emission bands are responsive to fluoride ions.

Chem. Eur. J.
DOI: **10.1002/chem.200900641**



Oxygen Reduction

M. J.-F. Guinel, A. Bonakdarpour, B. Wang, P. K. Babu, F. Ernst, N. Ramaswamy, S. Mukerjee, A. Wieckowski*

Carbon-Supported, Selenium-Modified Ruthenium–Molybdenum Catalysts for Oxygen Reduction in Acidic Media

The effect of molybdenum on the activity and stability of selenium-modified ruthenium in the oxygen reduction reaction is investigated. The catalyst is dispersed onto an amorphous carbon support and characterized by a range of analytical techniques. The results indicate that the addition of Mo in Ru chalcogenide materials for ORR electrocatalysis is promising.

ChemSusChem
DOI: **10.1002/cssc.200800215**