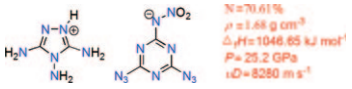
On these pages, we feature a selection of the excellent work that has recently been published in our sister journals. If you are reading these pages on a computer, click on any of the items to read the full article. Otherwise please see the DOIs for easy online access through Wiley Online Library.

Explosives

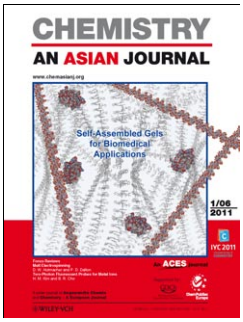
Y. Huang,* Y. Zhang, J. M. Shreeve*

Nitrogen-Rich Salts Based on Energetic Nitroaminodiazido[1,3,5]triazine and Guanazine

Bang boom bang: Nitrogen-rich salts based on nitroamino-diazido-s-triazine and guanazine exhibit high density, good thermal stabilities, and positive calculated heats of formation (see scheme). Predicted detonation pressures (21.0–30.3 GPa) and detonation velocities (7675–9048 $m\,s^{-1}$) suggest that these salts have potential as insensitive energetic materials.



Chem. Eur. J.
DOI: **10.1002/chem.201002363**

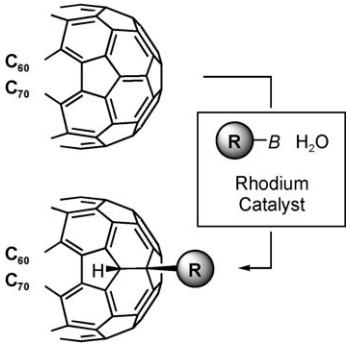


Fullerenes

M. Nambo, Y. Segawa, A. Wakamiya, K. Itami*

Selective Introduction of Organic Groups to C_{60} and C_{70} Using Organoboron Compounds and Rhodium Catalyst: A New Synthetic Approach to Organo(hydro)fullerenes

A new rhodium-catalyzed reaction of fullerenes with organoboron compounds is described. This method enables introduction of various organic groups onto C_{60} and C_{70}. The reaction generally proceeds with a high regioselectivity and in a mono-addition manner. Various functional fullerenes, such as fullerene-tagged amino acids and fullerene-capped π systems, can be synthesized.



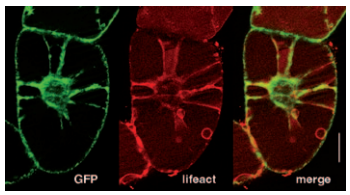
Chem. Asian J.
DOI: **10.1002/asia.201000583**

Peptides

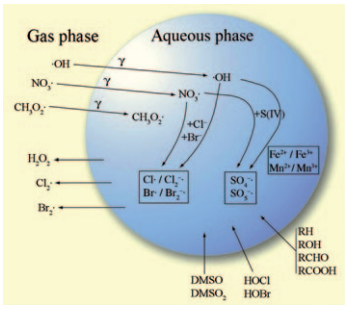
K. Eggenberger,* C. Mink, P. Wadhwani, A. S. Ulrich, P. Nick

Using the Peptide Bp100 as a Cell-Penetrating Tool for the Chemical Engineering of Actin Filaments within Living Plant Cells

Planted in plants: The cell-penetrating peptide BP100 has successfully been employed as a carrier for external delivery of the Lifeact peptide. Once inside the cell the Rhodamine B–Lifeact–BP100 construct labeled transvacuolar actin cables that tether the nucleus in the cell center.



ChemBioChem
DOI: **10.1002/cbic.201000402**



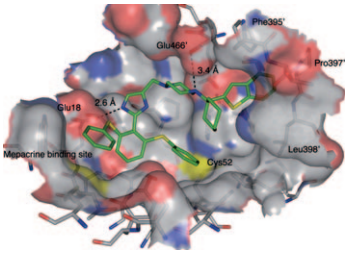
Atmospheric Chemistry

H. Herrmann,* D. Hoffmann, T. Schaefer, P. Bräuer, A. Tilgner

Tropospheric Aqueous-Phase Free-Radical Chemistry: Radical Sources, Spectra, Reaction Kinetics and Prediction Tools

Radicals in the atmosphere: The review summarizes newly published aqueous phase kinetic data on OH, NO_3 and SO_4^- radical reactions relevant for the chemistry in the tropospheric multiphase system (see picture). Furthermore, experimental data concerning the thiocyanate reference system, the OH radical absorption spectra and OH quantum yields in aqueous solution are reviewed. Different estimation methods for aqueous phase kinetic data of radical reactions are presented, compared and discussed.

ChemPhysChem
DOI: **10.1002/cphc.201000533**



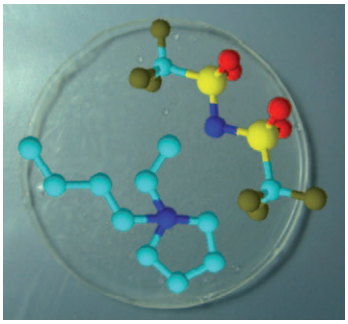
Tropical Diseases

C. Eberle, B. S. Lauber, D. Fankhauser, M. Kaiser, R. Brun, R. L. Krauth-Siegel, F. Diederich*

Improved Inhibitors of Trypanothione Reductase by Combination of Motifs: Synthesis, Inhibitory Potency, Binding Mode, and Antiprotozoal Activities

Parasites beware! Combination of trypanothione reductase (TR) inhibitor motifs, aided by computer-based design, led to selective compounds with K_{ic} values as low as 0.51 ± 0.1 μM. The majority of the newly prepared ligands exhibit low cytotoxicity and IC_{50} values between 0.12 and 6.0 μM against the protozoan parasites *T. b. rhodesiense* and *P. falciparum*.

ChemMedChem
DOI: **10.1002/cmdc.201000420**

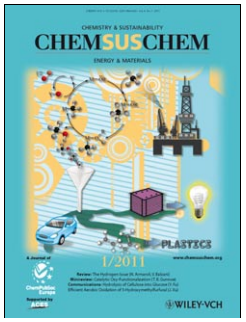


Lithium Batteries

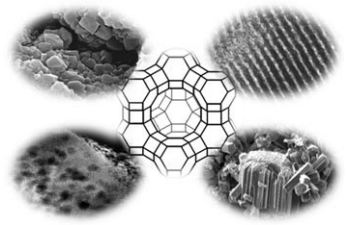
M. A. Navarra, J. Manzi, L. Lombardo, S. Panero, B. Scrosati*

Ionic Liquid-Based Membranes as Electrolytes for Advanced Lithium Polymer Batteries

Electrolyte orchestration: Polymer membranes based on a unique ionic liquid have been prepared and characterized as electrolytes for lithium batteries. The addition of a discrete amount of a selected organic solvent mixture was found to greatly improve the ionic conductivity and the interface properties of the composite membrane in contact with lithium electrodes, thus allowing the formation of a high-performance Li-metal–polymer battery.



ChemSusChem
DOI: **10.1002/cssc.201000254**

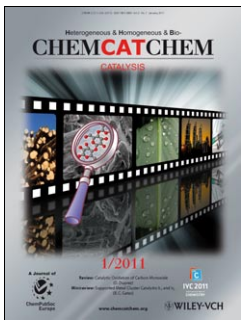


Industrial Catalysis

R. Chal, C. Gérardin, M. Bulut, S. van Donk*

Overview and Industrial Assessment of Synthesis Strategies towards Zeolites with Mesopores

Industrial zeolite and magic: The accessibility of zeolites (see figure) is of paramount importance to capitalize on their effectiveness in industrial catalysis. The variety of synthesis strategies proposed today for the preparation of 'hierarchical' zeolite materials combining micro- and mesoporosity is discussed.



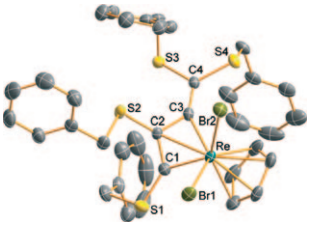
ChemCatChem
DOI: **10.1002/cctc.201000158**

Rhenium Dithioalkyne Cyclization

W. W. Seidel,* M. J. Meel, D. Schallenberg, T. Pape, A. Villinger, D. Michalik

Facile Formation of a Rhenium Allenylcarbene Complex with an Internal Dithioalkyne

Allenylcarbene complexes are potential alkyne oligomerization intermediates. A surprisingly facile synthesis of this complex type with an internal dithioalkyne and the plain $[(C_5H_5)ReBr_2]$ fragment by a concerted rearrangement cycloaddition reaction is reported.



Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.201000370**

Self-Assembling Dyes

J. Kelber, H. Bock,* O. Thiebaut, E. Grelet, H. Langhals

Room-Temperature Columnar Liquid-Crystalline Perylene Imido-Diesters by a Homogeneous One-Pot Imidification–Esterification of Perylene-3,4,9,10-tetracarboxylic Dianhydride

Perylenetetracarboxylic monoimide-diesters were synthesized by an amine-efficient, one-pot procedure. Alkyl group exchange of the ester moieties leads, through the use of the monoimido-monoanhydride, to room-temperature hexagonal columnar liquid crystals with potential as self-assembling electron acceptors for organic electronics.

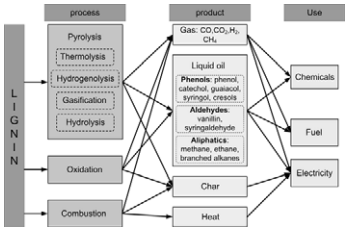
Eur. J. Org. Chem.
DOI: **10.1002/ejoc.201001346**

Lignin Depolymerization

M. P. Pandey, C. S. Kim*

Lignin Depolymerization and Conversion: A Review of Thermochemical Methods

An efficient and commercially competitive lignocellulosic biorefinery requires optimum utilization of all biomass components. Till date, lignin is the most underutilized component of a lignocellulosic biomass. However, lignin depolymerization with selective bond cleavage can convert it into various value-added chemicals including monomeric phenols and phenolic aldehydes.



Chem. Eng. Tech.
DOI: **10.1002/ceat.201000270**