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die Artikel mit einem Klick direkt aufrufen, ansonsten sind sie durch Eingabe der DOIs über Wiley Online Library leicht online zugänglich.

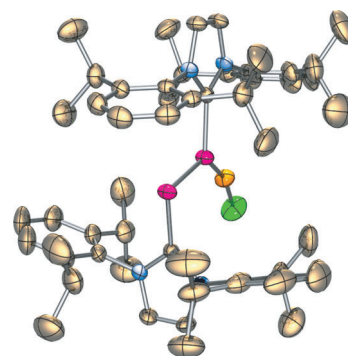


### Computational Chemistry

M. Chen, Y. Wang, Y. Xie, P. Wei, R. J. Gilliard, Jr., N. A. Schwartz, H. F. Schaefer, III, P. v. R. Schleyer, G. H. Robinson\*

Dynamic Complexation of Copper(I) Chloride by Carbene-Stabilized Disilicon

**Disilicon ligand:** Reaction of N-heterocyclic-carbene-stabilized disilicon with CuCl gave a carbene-stabilized disilicon-copper(I) chloride complex (see figure). The nature of the structure and bonding in this complex has been investigated by experimental, spectroscopic, and computational methods. The dynamic complexation behavior of the compound was explored by variable-temperature NMR experiments.



Chem. Eur. J.  
DOI: 10.1002/chem.201403095

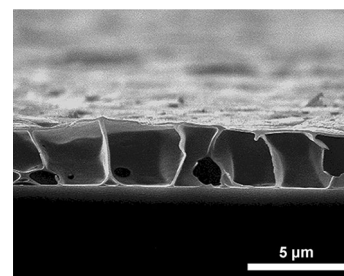


### Macroporous Films

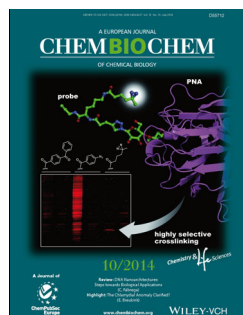
X. Chen, J. Sun\*

Fabrication of Macroporous Films with Closed Honeycomb-Like Pores from Exponentially Growing Layer-by-Layer Assembled Polyelectrolyte Multilayers

**You never stop learning about film:** Post-treatment of micrometer-thick poly(acrylic acid)/poly(allylamine hydrochloride) films with highly interpenetrated film structures produces macroporous films with closed honeycomb-like pores of several micrometers. These macroporous films can be conveniently released from substrates to produce free-standing films with satisfactory mechanical stability.



Chem. Asian J.  
DOI: 10.1002/asia.201402054

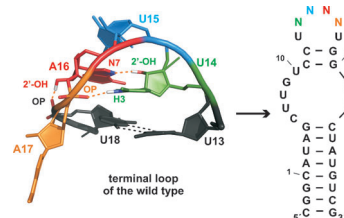


### Riboswitches

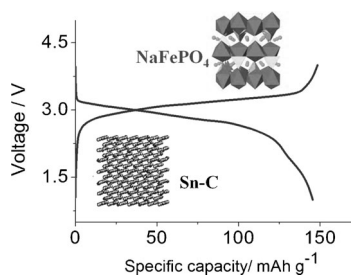
J. E. Weigand, S. R. Gottstein-Schmidtke, S. Demolli, F. Groher, E. Duchardt-Ferner, J. Wöhnert, B. Suess\*

Sequence Elements Distal to the Ligand Binding Pocket Modulate the Efficiency of a Synthetic Riboswitch

**The structure–function relationship of a U-turn motif** in the terminal loop of a synthetic neomycin riboswitch has been investigated. The analysis revealed those nucleobases required to optimize riboswitch function at every single position. A detailed comparison of functional and inactive mutants revealed a relationship between aptamer dynamics and regulation efficiency.



ChemBioChem  
DOI: 10.1002/cbic.201402067



ChemPhysChem

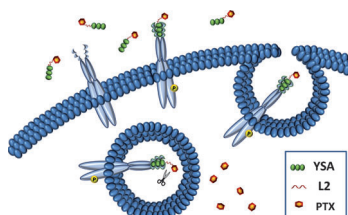
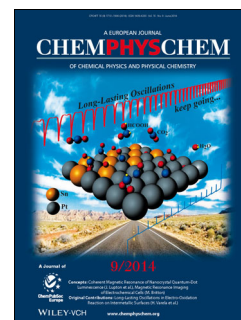
DOI: 10.1002/cphc.201400088

## Batteries

I. Hasa, J. Hassoun,\* Y.-K. Sun, B. Scrosati\*

Sodium-Ion Battery based on an Electrochemically Converted NaFePO<sub>4</sub> Cathode and Nanostructured Tin–Carbon Anode

**Matching sodium olivine and tin:** An electrochemically converted NaFePO<sub>4</sub> olivine cathode and a nanostructured Sn–C anode are combined in an efficient, sodium-ion battery, characterized by a capacity of 150 mAh g<sup>−1</sup>, a voltage of 3 V and, consequently, a practical energy density estimated to be of the order of 150 Wh kg<sup>−1</sup>



ChemMedChem

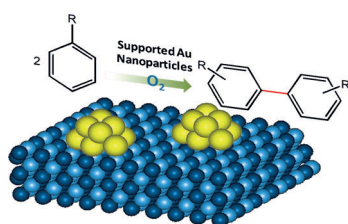
DOI: 10.1002/cmdc.201400067

## Drug Discovery

E. Barile, S. Wang, S. K. Das, R. Noberini, R. Dahl, J. L. Stebbins, E. B. Pasquale, P. B. Fisher, M. Pellecchia\*

Design, Synthesis and Bioevaluation of an EphA2 Receptor-Based Targeted Delivery System

**Ready, aim, fire!** We investigated the chemical determinants responsible for the stability and degradation in plasma of an EphA2-based targeted delivery system that is constituted by receptor-targeting peptides conjugated with paclitaxel. We demonstrate that our agents are both long-lived in plasma and markedly decrease tumor size in a prostate cancer xenograft model.



ChemSusChem

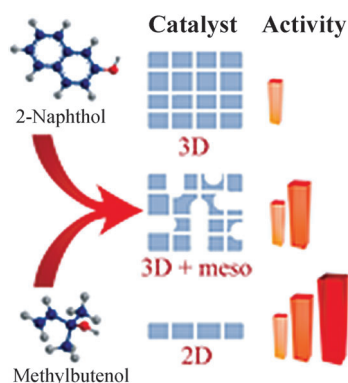
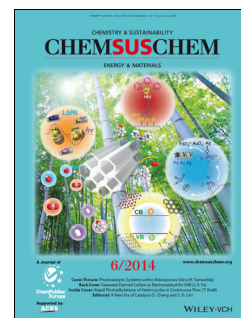
DOI: 10.1002/cssc.201402061

## Synthesis Efficiency

P. Serna,\* A. Corma\*

Towards a Zero-Waste Oxidative Coupling of Nonactivated Aromatics by Supported Gold Nanoparticles

**No more waste:** Supported gold nanoparticles catalyze the coupling of unactivated arenes in O<sub>2</sub> without the typical need of iodine oxidants, acids, bases, or additional metal salts in solution to result in a zero-waste synthetic process. This is in contrast to other catalysts that can perform for only a few turnovers and produce large quantities of waste.



ChemCatChem

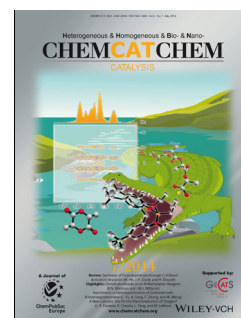
DOI: 10.1002/cctc.201402007

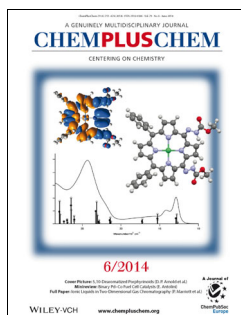
## Zeolites

M. V. Opanasenko, M. V. Shamzhy, C. Jo, R. Ryoo, J. Čejka\*

Annulation of Phenols: Catalytic Behavior of Conventional and 2D Zeolites

**Ideal for bulky substrates:** Catalytic behavior of hierarchical MFI zeolites was investigated in annulation reaction of phenols differing in size with methylbutenol and compared with that of medium and large-pore zeolites MFI and BEA.



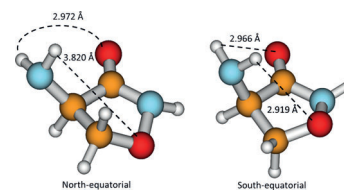


### Conformation Analysis

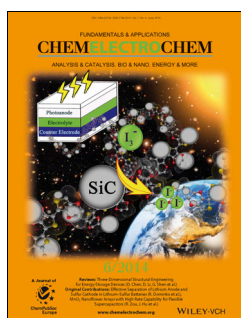
C. Fraschetti, A. Filippi, S. Borocci, V. Steinmetz, M. Speranza\*

Isomerism of Cycloserine and Its Protonated Form

**Pucker up:** The gas-phase isomerism of cycloserine and its protonated forms was investigated computationally and experimentally by IR multiphoton dissociation spectroscopy. The isomers of cycloserine show pronounced ring puckering, which generates rich conformational landscapes (see figure). The relative stability of the various isomers responds to a balance between attractive and repulsive interactions among the functional groups of the molecule.



ChemPlusChem  
DOI: 10.1002/cplu.201400006

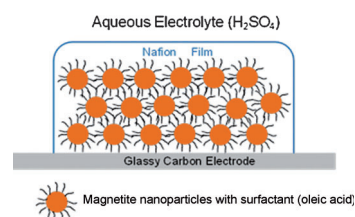


### Modified Electrodes

K. Murugappan, D. S. Silvester,\* D. Chaudhary, D. W. M. Arrigan\*

Electrochemical Characterization of an Oleyl-coated Magnetite Nanoparticle-Modified Electrode

**Magical magnetite:** The electrochemical behavior of oleyl-coated  $\text{Fe}_3\text{O}_4$  nanoparticles synthesized by chemical co-precipitation is investigated. The modified electrodes exhibit electrochemical behavior in acidic media but not in alkaline media. The results open up new prospects for future mechanistic and analytical studies of magnetite nanoparticles.



ChemElectroChem  
DOI: 10.1002/celc.201402012

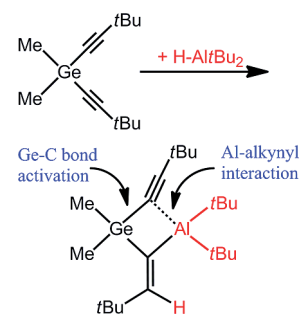


### Hydrometallation

W. Uhl,\* S. Pelties, M. Rohling, J. Tannert

Alkenyl-Alkynylgermanes Functionalised by Lewis Acids: Intramolecular Aluminium- and Gallium-Alkyne Interactions and Potential Ge-C Bond Activation

Bond activation by intramolecular interactions of alkynyl carbon with highly Lewis acidic aluminium atoms was observed for functionalised alkenyl-alkynylgermanes. Such mixed germanium-aluminum or -gallium compounds were obtained by hydrometallation of dialkynylgermanes and are promising candidates for secondary reactions such as cyclisation or insertion.



Eur. J. Inorg. Chem.  
DOI: 10.1002/ejic.201402132

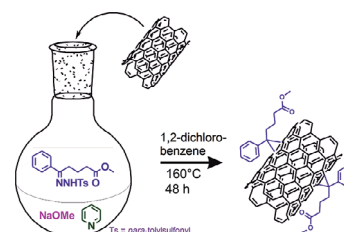


### Functionalized Nanotubes

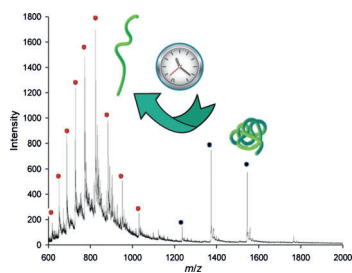
Z. Syrgiannis, C. Hadad, M. Prato\*

Cyclopropanation Reactions of Carbon Nanotubes

A new class of functionalized carbon nanotubes synthesized on the basis of in situ deprotected tosylhydrazones and the formation of cyclopropanated products is reported. A different product is obtained with different types of tosylhydrazones. This new class of functionalized carbon nanotubes is analogous to PC60BM materials and can find future use in plastic solar cells or flexible electronics.



Eur. J. Org. Chem.  
DOI: 10.1002/ejoc.201402311



ChemistryOpen

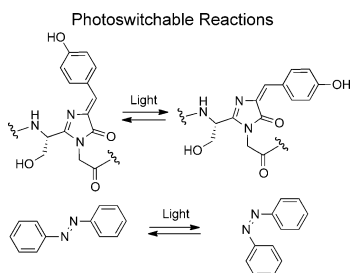
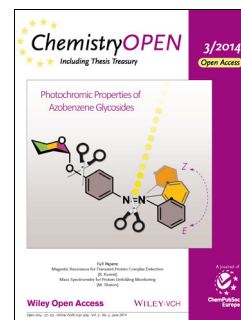
DOI: 10.1002/open.201402002

## Protein Folding

N. Zinck, A.-K. Stark, D. J. Wilson, M. Sharon\*

An Improved Rapid Mixing Device for Time-Resolved Electrospray Mass Spectrometry Measurements

**In the flow!** The development of an improved continuous-flow mixing apparatus for real-time electrospray mass spectrometry measurements is described. The performance of the device is demonstrated by monitoring the unfolding reaction of cytochrome C, yielding improved signal-to-noise ratio and reduced experimental repeat errors.



Asian J. Org. Chem.

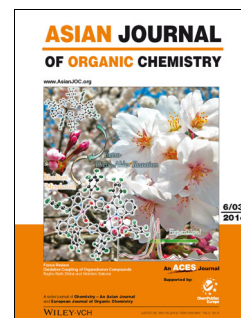
DOI: 10.1002/ajoc.201402054

## Photochemistry

J. Lee\*

Light-Controlled Chemical Reactions and Their Applications in Biological Systems

This Focus Review describes recent efforts in developing light-controlled switchable compounds and their applications in biological systems. In particular, photoisomerization reactions of azobenzene as well as synthetic green fluorescent protein chromophores are discussed.



ChemViews magazine

DOI: 10.1002/chemv.201400041

## Sustainable Chemistry

V. Koester

T. Kläusli on Platform Chemicals from Renewables

5-Hydroxymethylfurfural (5-HMF) is a renewable platform chemical that could replace fossil-derived alternatives and has applications in the development of innovative new materials. T. M. Kläusli from AVA Biochem, Switzerland, the first company to industrially produce 5-HMF from biomass, spoke to ChemViews Magazine about the future of sustainable platform chemicals.

