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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.

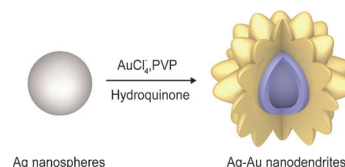


Nanomaterials

A. G. M. da Silva, M. L. de Souza, T. S. Rodrigues, R. S. Alves, M. L. A. Temperini, P. H. C. Camargo*

Rapid Synthesis of Hollow Ag–Au Nanodendrites in 15 Seconds by Combining Galvanic Replacement and Precursor Reduction Reactions

Spiky and hollow: By using Ag nanospheres as seeds, hollow Ag–Au nanodendrites can be prepared in 15 s by a combination of galvanic replacement reaction between Ag and AuCl_4^- (aq), and AuCl_4^- (aq) reduction using hydroquinone in the presence of polyvinylpyrrolidone (PVP) in water. Owing to their sharp tips, the Ag–Au nanodendrites were effective substrates for surface-enhanced Raman scattering (SERS) detection of 4-mercaptopyridine and rhodamine 6G.



Chem. Eur. J.
DOI: 10.1002/chem.201404739

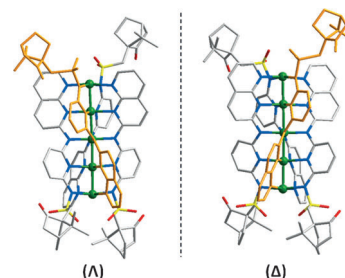


Helical Structures

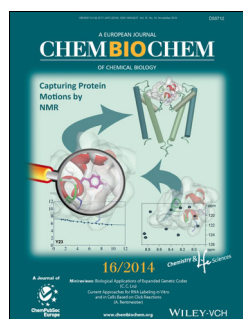
C.-H. Yu, M.-S. Kuo, C.-Y. Chuang, G.-H. Lee, S.-A. Hua, B.-Y. Jin, S.-M. Peng*

Chirality Control of Quadruple Helices of Metal Strings by Peripheral Chiral Ligands

Let's twist again! Chirality control of helices with the Δ or Λ form is interesting in various fields such as extended metal atom chains (EMACs), in which ligands helically wrap the metal backbones. We report two EMACs (see picture) whose chiralities are controlled by chiral ligands with camphorsulfonyl groups.



Chem. Asian J.
DOI: 10.1002/asia.201402823

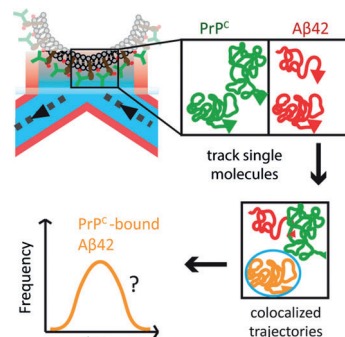


Amyloid Peptides

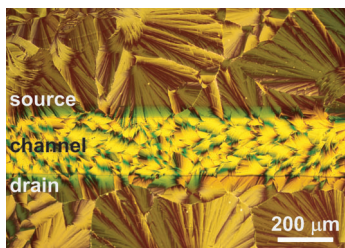
K. A. Ganzinger, P. Narayan, S. S. Qamar, L. Weimann, R. T. Ranasinghe, A. Aguzzi, C. M. Dobson, J. McColl,* P. St. George-Hyslop,* D. Klenerman*

Single-Molecule Imaging Reveals that Small Amyloid- β_{1-42} Oligomers Interact with the Cellular Prion Protein (PrP^C)

Small oligomers bind PrP^C : TIRF microscopy and a single-particle tracking approach have determined that amyloid- β peptide oligomers ($\text{oA}\beta$) interact with the cellular prion protein (PrP^C) on live neuronal cells. Having dissected this interaction at the single-molecule level, we estimate that predominantly small $\text{oA}\beta_{42}$ species (dimers and trimers) bind to PrP^C .



ChemBioChem
DOI: 10.1002/cbic.201402377



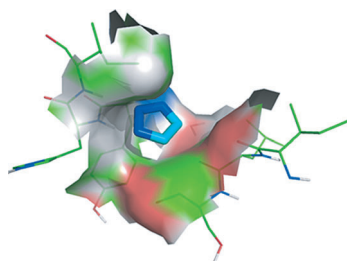
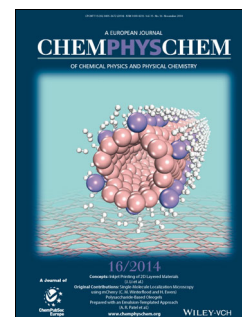
ChemPhysChem
DOI: 10.1002/cphc.201402360

Organic Semiconductors

C.-H. Kim,* H. Hlaing, M. M. Payne, K. G. Yager, Y. Bonnassieux, G. Horowitz, J. E. Anthony, I. Kymissis*

Strongly Correlated Alignment of Fluorinated 5,11-Bis(triethylgermylethynyl)anthradithiophene Crystallites in Solution-Processed Field-Effect Transistors

Crystalline organic semiconductor film: A functionalized acene derivative diF-TEG-ADT has an exceptional ability to form highly aligned crystalline domains. Grazing-incidence wide-angle X-ray scattering measurements define the crystal structure of the molecular films that constitute a hole-transporting field-effect transistor channel.



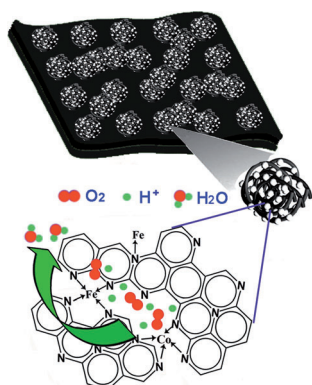
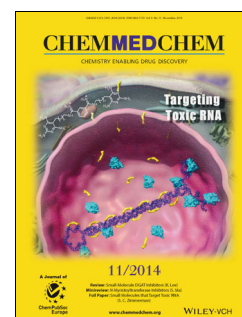
ChemMedChem
DOI: 10.1002/cmdc.201402233

Identifying Pharmacophores

A. Massarotti,* S. Aprile,* V. Mercalli, E. Del Grosso, G. Grosa, G. Sorba, G. C. Tron

Are 1,4- and 1,5-Disubstituted 1,2,3-Triazoles Good Pharmacophoric Groups?

The time is ripe to demonstrate the real ability of 1,2,3-triazoles to play a pivotal role in drug–receptor interactions. We analyzed the X-ray crystal structures of 1,2,3-triazole-containing protein complexes to understand their pharmacophoric role. Furthermore, the metabolic stability, the ability to inhibit cytochromes, and the aqueous solubility contribution of the 1,2,3-triazole nucleus were analyzed.



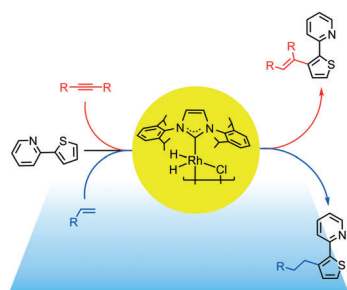
ChemSusChem
DOI: 10.1002/cssc.201402680

Electrochemistry

S. Li, D. Wu, H. Liang, J. Wang, X. Zhuang, Y. Mai, Y. Su,* X. Feng*

Metal–Nitrogen Doping of Mesoporous Carbon/Graphene Nanosheets by Self-Templating for Oxygen Reduction Electrocatalysts

Double doping strategy: Highly efficient electrocatalysts for the oxygen reduction reaction (ORR) are prepared by a self-templating strategy. The strategy yields carbon/graphene nanosheets that are doped by both transition metals and nitrogen, having a unique two-dimensional morphology and tunable meso-scale porosity. The as-prepared iron–cobalt catalysts exhibit excellent electrocatalytic activity towards the ORR and are stable in both alkaline and acidic media.



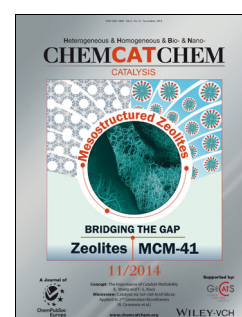
ChemCatChem
DOI: 10.1002/cctc.201402507

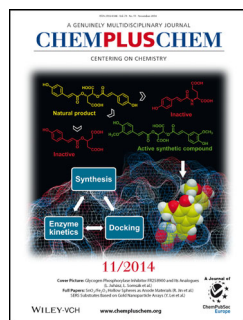
Carbenes

L. Rubio-Pérez, M. Iglesias,* R. Castarlenas, V. Polo, J. J. Pérez-Torrente, L. A. Oro*

Selective C–H Bond Functionalization of 2-(2-Thienyl)pyridine by a Rhodium N-Heterocyclic Carbene Catalyst

For your C–H bond only: $[\text{Rh}(\mu\text{-Cl})(\text{H})_2(\text{IPr})_2]$ (IPr = 1,3-bis-(2,6-diisopropylphenyl)imidazol-2-ylidene) catalyzes the selective functionalization of 2-(2-thienyl)pyridine efficiently with a range of alkenes and internal alkynes. A catalytic cycle is proposed on the basis of the identification of key reaction intermediates and the study of their reactivity by NMR spectroscopy.



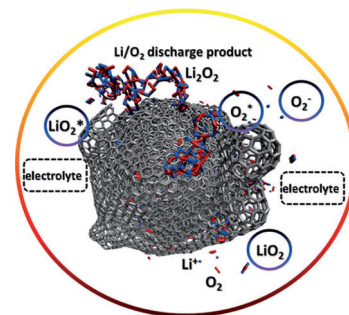


Lithium-Oxygen Batteries

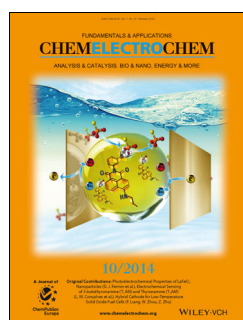
K. C. Lau, J. Lu, X. Luo, L. A. Curtiss,* K. Amine*

Implications of the Unpaired Spins in Li–O₂ Battery Chemistry and Electrochemistry: A Minireview

Battery design: An overview is given of unpaired electron spins related to the chemical species in a Li–O₂ cell environment and their possible impact on the design and development of a practical Li–O₂ cell. The discharge products consist of composite structures of Li/O₂ compounds, such as Li₂O₂, O-rich Li₂O₂, LiO₂-like superoxide, and Li₂O (see figure).



ChemPlusChem
DOI: 10.1002/cplu.201402053

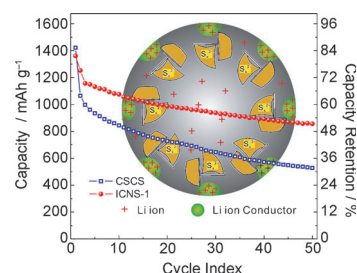


Lithium-Sulfur Batteries

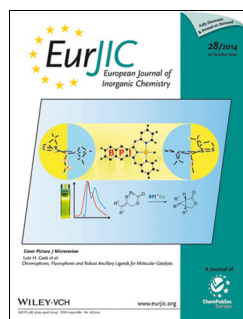
W. Cai, J. Li, Y. Zhang, G. Xu, H. Cheng*

Minimizing Polysulfide Shuttles in Lithium Sulfur Batteries by Introducing Immobile Lithium Ions into Carbon–Sulfur Nanocomposites

Immobilized into action! Immobile lithium ion sites in the commercial Nafion ionomer, which acts to attract negatively charged polysulfide species for reduction in lithium batteries, are employed in situ in the carbon–sulfur nanocomposite (see picture). The capacity retention of this carbon–Nafion–sulfur nanocomposite is improved by more than 100%.



ChemElectroChem
DOI: 10.1002/celec.201402154

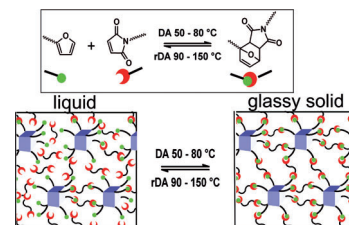


Self-Healing Materials

T. Engel, G. Kickelbick*

Furan-Modified Spherosilicates as Building Blocks for Self-Healing Materials

Octameric furfuryl-functionalized spherosilicates were used to prepare self-healing hybrid materials based on a reversible Diels–Alder reaction. Two different bismaleimides were used as dienophilic cross-linkers for the self-healing materials. The healing abilities are dictated by the nature of the cross-linker.



Eur. J. Inorg. Chem.
DOI: 10.1002/ejic.201402551

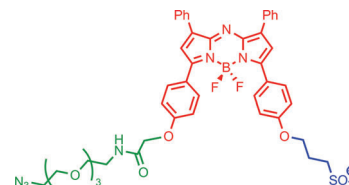


Fluorochromes

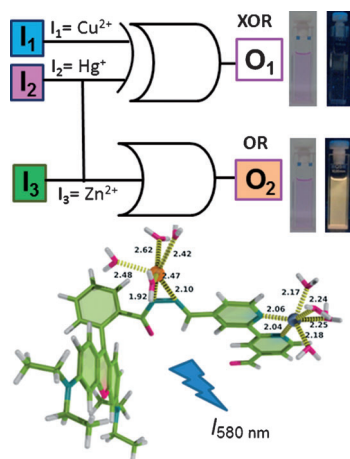
D. Wu, S. Cheung, R. Daly, H. Burke, E. M. Scanlan, D. F. O'Shea*

Synthesis and Glycoconjugation of an Azido-BF₂-Azadipyrrmethene Near-Infrared Fluorochrome

The synthesis of a water-soluble azido near-IR fluorochrome based on the BF₂-azadipyrrmethene fluorophore class is described. The fluorochrome can be effectively conjugated to alkyne-substituted carbohydrates by click chemistry in water at room temperature in 20 min. This azido-BF₂-azadipyrrmethene fluorochrome offers the potential to be a new near-IR imaging research tool for biology.



Eur. J. Org. Chem.
DOI: 10.1002/ejoc.201402960



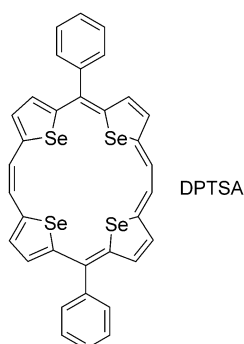
ChemistryOpen
DOI: 10.1002/open.201402020

Molecular Sensors

C. Núñez,* S. M. Santos, E. Oliveira, H. M. Santos, J. L. Capelo, C. Lodeiro*

Rhodamine-Appended Bipyridine: XOR and OR Logic Operations Integrated in an Example of Controlled Metal Migration

Logic operations, metal migration: The spectral response associated with the unusual metal migration of various metal ions from the chelating rhodamine terminal in the open-ring form of the remote bipyridyl terminal in compound **1** leads to a combination of optical responses that could be correlated for demonstrating some simple logic operations.



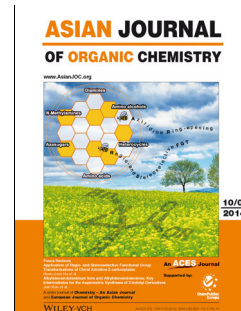
Asian J. Org. Chem.
DOI: 10.1002/ajoc.201402157

Organic Electronics

H. Liu, Y. Qin, W. Xu,* D. Zhu*

Synthesis, Characterization, and Electron-Transport Properties of a π -Conjugated Heteromacrocyclic: A Selenium-Bridged Neutral Annulene

Sel-ling your soul: The synthesis and characterization of a π -conjugated, macrocyclic, selenium-bridged molecule, 5,16-diphenyltetraselenolo[22]annulene[2,1,2,1] (DPTSA), is reported. DPTSA was shown to have high aromaticity by ¹H NMR and UV/vis absorption spectra. Its electrochemical properties and electron-transport properties were studied. Thin-film organic field-effect transistors of DPTSA display *p*-type semiconducting behavior.



ChemViews magazine
DOI: 10.1002/chemv.201400062

Food

Espresso Crema

What is the crema of an espresso composed of? How should it look in a well-made coffee and how does it affect the taste? Find out in this month's Clever Picture in *ChemViews Magazine*.

