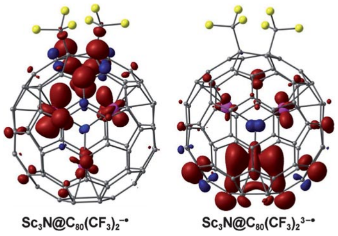
On these pages, we feature a selection of the excellent work that has recently been published in our sister journals. If you are reading these pages on a computer, click on any of the items to read the full article. Otherwise please see the DOIs for easy online access through Wiley InterScience.

Spectroelectrochemistry

A. A. Popov,* N. B. Shustova, A. L. Svitova, M. A. Mackey, C. E. Coumbe, J. P. Phillips,* S. Stevenson,* S. H. Strauss,* O. V. Boltalina,* L. Dunsch*

Redox-Tuning Endohedral Fullerene Spin States: From the Dication to the Trianion Radical of $Sc_3N@C_{80}(CF_3)_2$ in Five Reversible Single-Electron Steps

The first endohedral trianion captured: $Sc_3N@C_{80}(CF_3)_2$ (see figure) exhibits three reversible reductions and two reversible oxidations and affords the facile generation of the monocation, monoanion, and trianion in solution, which can be characterized by ESR and absorption spectroscopy. This is the first time that such a broad range of charged states of any endohedral fullerene has been spectroscopically characterized.



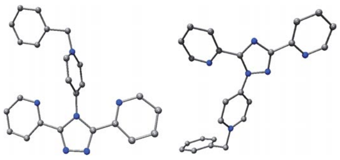
Chem. Eur. J.
DOI: **10.1002/chem.201000205**

Positive Triazoles

J. A. Kitchen, D. S. Larsen, S. Brooker*

Alkylations of N^4-(4-Pyridyl)-3,5-di(2-pyridyl)-1,2,4-triazole: First Observation of Room-Temperature Rearrangement of an N^4-Substituted Triazole to the N^1 Analogue

A cool change: Alkylation of the title ligand pydpt with benzyl bromide or methyl iodide under relatively mild conditions led in some cases to unexpected rearrangement products (see picture; N blue, C gray). Reaction with excess methyl iodide in dichloromethane at room temperature resulted in the lowest reported temperature for an N^4 to N^1 rearrangement. Interestingly, when the solution was heated at reflux, pydpt was doubly methylated.



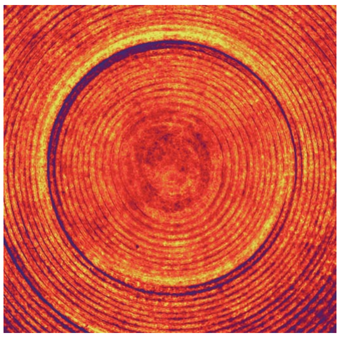
Chem. Asian J.
DOI: **10.1002/asia.200900485**

Sponge Spicules

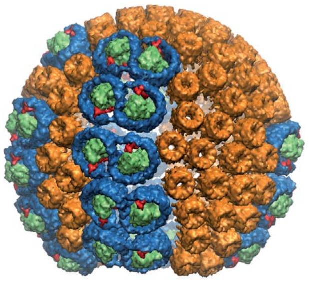
W. E. G. Müller,* X. H. Wang,* B. Sinha, M. Wiens, H.-C. Schröder, K. P. Jochum

NanoSIMS: Insights into the Organization of the Proteinaceous Scaffold within Hexactinellid Sponge Spicules

Smart sponge biosilica: Only siliceous sponges can form their skeleton through an enzyme (silicatein)-driven reaction. We report here that silicatein remains, after formation of its product biosilica, buried in this polymer. This hybrid material confers the skeleton an unusually high stability paired with flexibility.



ChemBioChem
DOI: **10.1002/cbic.201000078**



ChemPhysChem

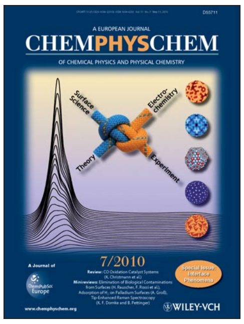
DOI: **10.1002/cphc.200900911**

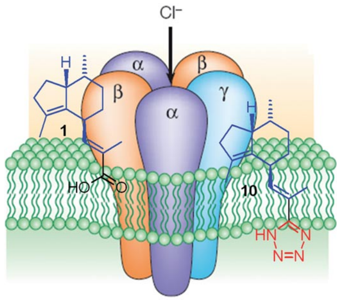
Photosynthetic Membranes

J. Hsin, D. E. Chandler, J. Gumbart, C. B. Harrison, M. Sener, J. Strumpfer, K. Schulten*

Self-Assembly of Photosynthetic Membranes

Seeing the light: The overall architecture of chromatophores, the simplest prototype of photosynthetic machinery (see picture), is considered and the computational methods used to address how their distinct shapes arise are examined. The light-harvesting protein complexes abundant in chromatophores induce local membrane curvature via multiple mechanisms.





ChemMedChem

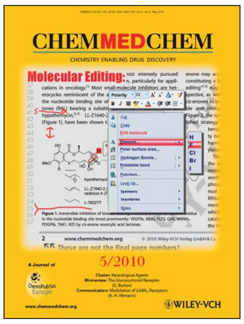
DOI: **10.1002/cmdc.201000062**

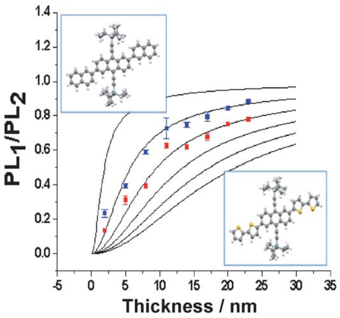
Drug Discovery

S. Kopp, R. Baur, E. Sigel, H. Möhler, K.-H. Altmann*

Highly Potent Modulation of $GABA_A$ Receptors by Valerenic Acid Derivatives

Traditional medicine to potent drug leads: Valerenic acid (**1**) is a major constituent of common valerian and potentiates the effect of γ-aminobutyric acid on $GABA_A$ receptors. Through systematic modification of the carboxyl group of **1** we have discovered a noncarboxylate-containing analogue, tetrazole **10**, which exceeds the modulatory activity of **1** at $GABA_A$ receptors by one order of magnitude.





ChemSusChem

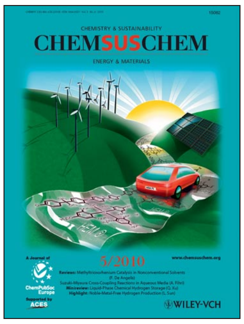
DOI: **10.1002/cssc.201000037**

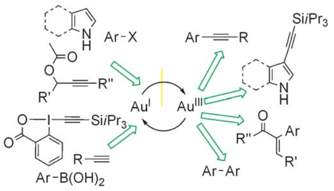
Photovoltaics

D. S. Chung, J. W. Park, W. M. Yun, H. Cha, Y.-H. Kim,* S.-K. Kwon,* C. E. Park*

Solution-Processed Organic Photovoltaic Cells with Anthracene Derivatives

Tomorrow Never Diels: Triisopropylsilylethynyl (TIPS)–anthracene derivatives are used as electron-donor materials for organic solar cells. Different from TIPS–pentacene compounds, the anthracene derivatives are not susceptible to Diels–Alder reactions with the electron-acceptor material PCBM. Solar cells comprising the anthracene derivatives achieve power conversion efficiencies of 1.4%.





ChemCatChem

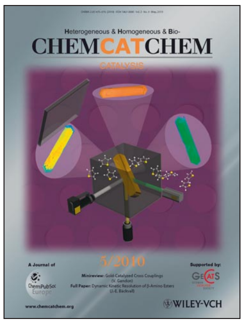
DOI: **10.1002/cctc.200900319**

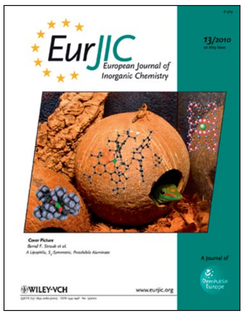
Gold Catalysis

P. Garcia, M. Malacria, C. Aubert, V. Gandon,* L. Fensterbank*

Gold-Catalyzed Cross-Couplings: New Opportunities for C–C Bond Formation

From C to shining C: The fast-expanding field of gold catalysis has recently been extended to cross-couplings, including Suzuki and Sonogashira reactions. From the Au^I/Au^{III} redox couple to the development of tandem routes, gold exhibits an impressive potential for cross-coupling reactions. The combination of gold with palladium gives rise to yet further synthetic opportunities.



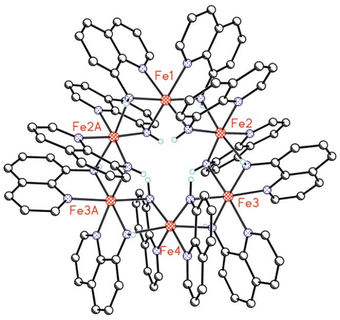


Wheel-Like Magnetic Complexes

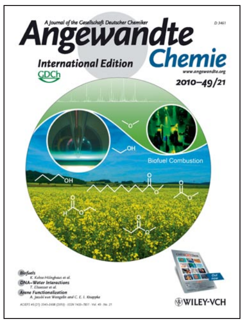
A. Malassa, C. Agthe, H. Görls, M. Podewitz, L. Yu, C. Herrmann, M. Reiher,* M. Westerhausen*

Synthesis, Structures, and Magnetic Properties of *N*-Trialkylsilyl-8-amidoquinoline Complexes of Chromium, Manganese, Iron, and Cobalt as well as of Wheel-Like Hexanuclear Iron(II) and Manganese(II) Bis(8-amidoquinoline)

The 8-amidoquinoline complexes of Fe^{II} and Mn^{II} form hexanuclear wheels. Surprisingly, the magnetic properties differ: the Fe^{II} complex is ferromagnetic, whereas the Mn^{II} wheel shows an antiferromagnetic coupling. In contrast to these cage compounds, the Co^{II} complex is a mononuclear compound.



Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.200901158**

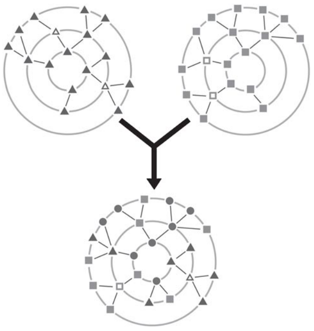


Cheminformatics

S. Wetzel, W. Wilk, S. Chammaa, B. Sperl, A. G. Roth, A. Yektaoglu, S. Renner, T. Berg, C. Arenz, A. Giannis, T. I. Oprea, D. Rauh, M. Kaiser, H. Waldmann*

A Scaffold-Tree-Merging Strategy for Prospective Bioactivity Annotation of γ-Pyrones

Tactical target setting: The merging of natural product and non-natural product based hierarchical scaffold trees annotated with bioactivity (see schematic illustration) together with brachiation along structural lines of biological relevance provides a novel strategy for the prospective identification of protein targets for compound collections inspired by natural product structures.



Angew. Chem. Int. Ed.
DOI: **10.1002/anie.200906555**