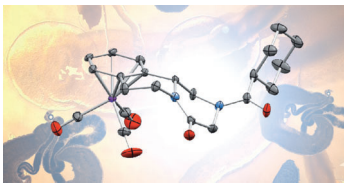
On these pages, we feature a selection of the excellent work that has recently been published in our sister journals. If you are reading these pages on a computer, click on any of the items to read the full article. Otherwise please see the DOIs for easy online access through Wiley Online Library.

Medicinal Chemistry

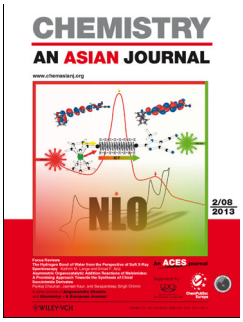
M. Patra, K. Ingram, V. Pierroz, S. Ferrari, B. Spingler, R. B. Gasser, J. Keiser,* G. Gasser*

[(η^6-Praziquantel)$Cr(CO)_3$] Derivatives with Remarkable In Vitro Anti-Schistosomal Activity

The antischistosomal effect of two [(η^6-praziquantel)$Cr(CO)_3$] derivatives **1** and **2** was investigated. The compounds (see figure: Cr purple, N blue, O red) are prepared in a one-step procedure from commercially available praziquantel. Both derivatives show a high in vitro activity against *Schistosoma mansoni*, a parasitic trematode, and had only a minor cytotoxic effect on selected mammalian cell lines.



Chem. Eur. J.
DOI: **10.1002/chem.201204291**

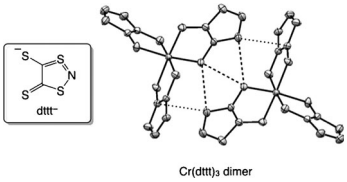


Complex Chemistry

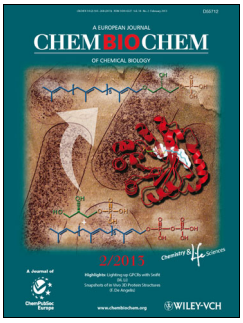
T. Nakamura, K. Sasamori, T. Kodama, K. Kikuchi, W. Fujita*

Preparation, Crystal Structure, and Magnetic Properties of a New Dithiolene Ligand, 1,3,2-Dithiazole-4-thione-5-thiolate, and its Metal Complex

1, 3, 2, 4, 5, go! A new dithiolene ligand, 1,3,2-dithiazole-4-thione-5-thiolate ($dttt^-$), which is a stable and diamagnetic monoanion, was prepared. Its tris(dithiolene) complex $Cr(dttt)_3 \cdot CS_2$ is octahedral and forms a dimer through intermolecular interatomic S···S and S···C contacts in its crystalline state. Magnetic measurements of the complex revealed paramagnetism with intradimer ferromagnetic and interdimer antiferromagnetic interactions.



Chem. Asian J.
DOI: **10.1002/asia.201200912**

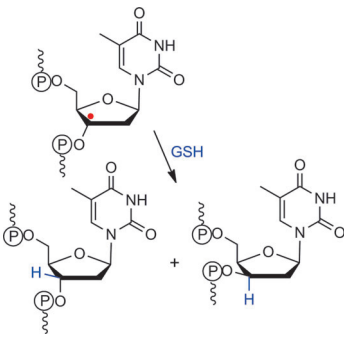


DNA Damage

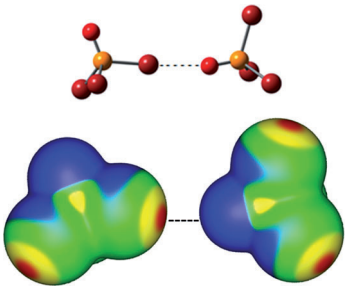
N. J. Amato, A. C. Bryant-Friedrich*

The Impact of Structure on Oxidatively Generated DNA Damage Products Resulting from the C3′-Thymidinyl Radical

What's the damage? Trapping the C3′-thymidinyl radical in biologically significant architectures delivers both the repaired oligomer and 1-(2′-deoxy-β-D-*threo*-pentofuranosyl)thymidine-containing substrates. The stereoselectivity of the reduction was found to be dependent upon the DNA structure.



ChemBioChem
DOI: **10.1002/cbic.201200723**



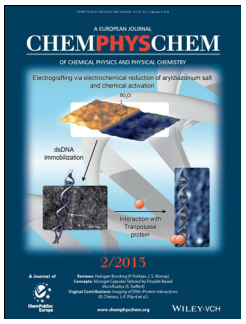
ChemPhysChem
DOI: **10.1002/cphc.201200799**

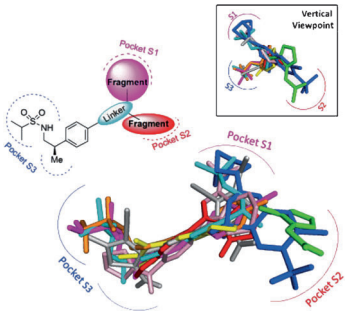
Intermolecular Interactions

P. Politzer,* J. S. Murray

Halogen Bonding: An Interim Discussion

To bond or not to bond: The factors governing halogen-bonding interactions, which involve a region of positive electrostatic potential on a covalently bonded halogen and a negative site (see picture), such as the lone pair of a Lewis base, are described. Particularly important is the positive potential, labeled a σ hole, which is an extension of the covalent bond to the halogen.





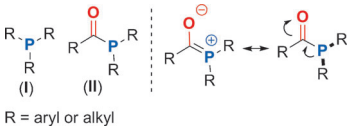
ChemMedChem
DOI: **10.1002/cmdc.201200554**

Drug Design

H. Chen, C. Z. Wang, C. Ding, C. Wild, B. Copits, G. T. Swanson, K. M. Johnson, J. Zhou*

A Combined Bioinformatics and Chemoinformatics Approach for Developing Asymmetric Bivalent AMPA Receptor Positive Allosteric Modulators as Neuroprotective Agents

PAMs new in town! An effective, combined bioinformatics and chemoinformatics approach was applied to the design of novel asymmetric bivalent α-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) receptor positive allosteric modulators (PAMs) with marked potency in vitro and efficacy in vivo for preventing neuroapoptosis. The novel chemotype could provide pharmacological probes and potential therapeutic agents for glutamatergic hypofunction and its related neurological and psychiatric disorders.



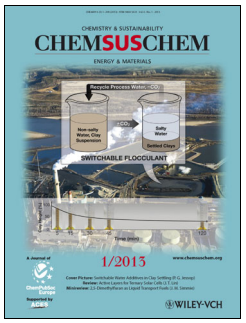
ChemSusChem
DOI: **10.1002/cssc.201200732**

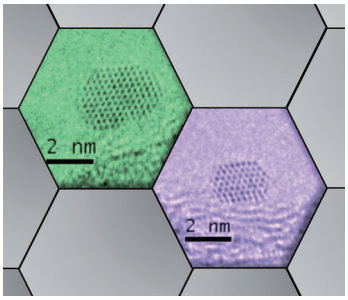
Hydrogenation Reactions

S. Gowrisankar, C. Federsel, H. Neumann, C. Ziebart, R. Jackstell, A. Spannenberg, M. Beller*

Synthesis of Stable Phosphomide Ligands and their Use in Ru-Catalyzed Hydrogenations of Bicarbonate and Related Substrates

Ruthenium and phosphor work wonders: Air-stable ruthenium phosphomide complexes are active catalysts in the hydrogenation of sodium bicarbonate, carbon dioxide, and carbonyl compounds. Hydrogenation proceeds with high catalyst turnover numbers in the absence of amines or other additives. The application range of these new ruthenium catalysts also includes the hydrogenation of cinnamaldehyde and benzaldehyde.





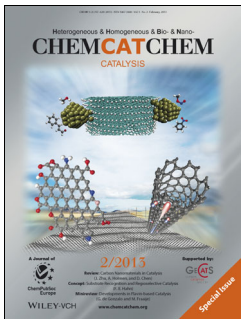
ChemCatChem
DOI: **10.1002/cctc.201200535**

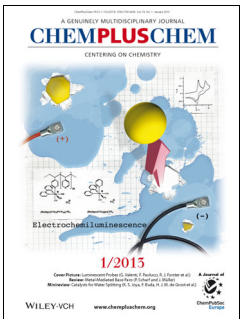
Gold Nanocatalysts

D. Wang,* A. Villa, D. Su, L. Prati, R. Schlögl

Carbon-Supported Gold Nanocatalysts: Shape Effect in the Selective Glycerol Oxidation

Order, order! More ordered graphitic layers on the supporting carbon nanofibers surface led to Au particles bonded through their {111} plane, exhibiting more facet area. This catalyst presented higher selectivity toward C–C bond cleavage in the liquid-phase oxidation of glycerol.



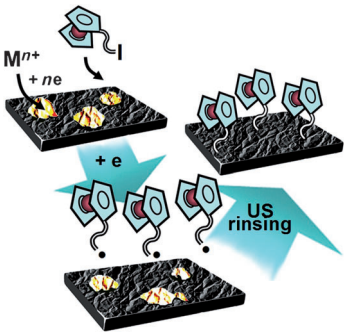


Electrocatalysis

V. Jouikov,* J. Simonet*

Grafting of ω-Alkyl Ferrocene Radicals to Carbon Surfaces By Means Of Electrocatalysis with Subnanomolar Transition-Metal (Pd, Pt, or Au) Layers

Attached at the surface: Electroreduction of ferrocene-tailed alkyl iodides at carbon-based cathodes doped with trace amounts of transition metals occurs as a one-electron process providing alkyl radicals. Grafting of these radicals to the graphitized zones of the electrode allows formation of dense alkyl ferrocenyl layers covalently bound to the solid support (see figure; US = ultrasonic).



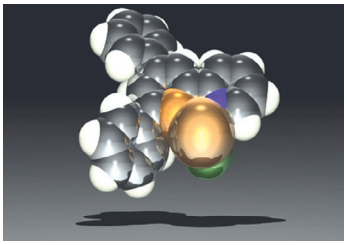
ChemPlusChem
DOI: **10.1002/cplu.201200261**

Phosphorus Chemistry

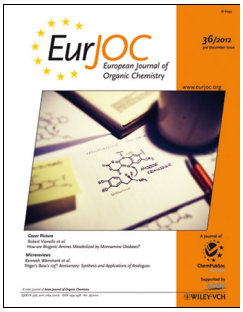
C. Müller,* L. E. E. Broeckx, I. de Krom, J. J. M. Weemers

Developments in the Coordination Chemistry of Phosphinines

We highlight recent achievements in the design of donor-functionalized, chelating 2,4,6-triarylphosphinine derivatives by the pyrylium salt route and illustrate strategies to access new neutral and cationic phosphinine-based transition metal complexes containing metal centres in various oxidation states, such as M^0, M^I, M^{II} and M^{III}. Comparisons with isostructural nitrogen analogues are made.



Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.201200912**

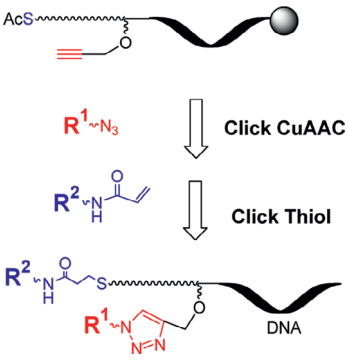


Oligonucleotide Conjugates

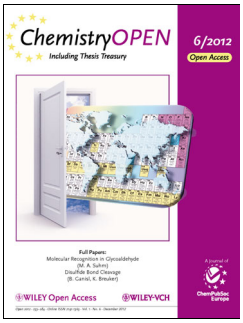
A. Meyer, J.-J. Vasseur, F. Morvan*

Synthesis of Monoconjugated and Multiply Conjugated Oligonucleotides by "Click Thiol" Thiol-Michael-Type Additions and by Combination with CuAAC "Click Huisgen"

Oligonucleotide conjugates bearing different labels were synthesized by mono- or poly-Thiol Michael-Type Additions (TMTAs) through the use of acrylamide derivatives. Bis-oligonucleotide conjugates were obtained with a combination of TMTA and CuAAC "click" chemistry.



Eur. J. Org. Chem.
DOI: **10.1002/ejoc.201201311**

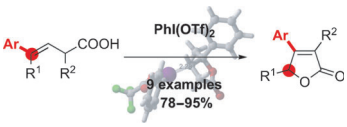


Furanones

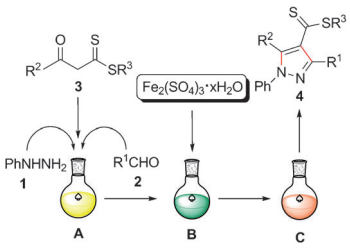
F. V. Singh, J. Rehbein, T. Wirth*

Facile Oxidative Rearrangements Using Hypervalent Iodine Reagents

Rearranged by iodine: Aromatic substituents migrate in a novel oxidative cyclization. Calculations highlight the cationic nature of the intermediates in the rearrangement. The fast access to heavily substituted furanones is used for the synthesis of biologically active derivatives.



ChemistryOpen
DOI: **10.1002/open.201200037**



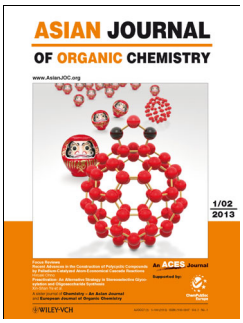
Asian J. Org. Chem.
DOI: **10.1002/ajoc.201200148**

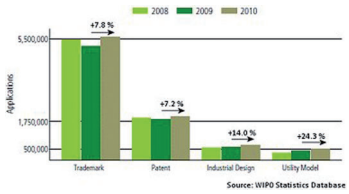
Pyrazoles

A. T. Khan,* A. Ghosh, S. Basha R, M. H. Mir

Synthesis of Trisubstituted 1*H*-Pyrazole-4-carbodithioates in a One-Pot Three-Component Reaction Catalyzed by Ferric Sulfate

An efficient synthesis of substituted-1*H*-pyrazole-4-carbodithioates is accomplished through the one-pot reaction of phenyl hydrazine, aldehydes, and alkyl-3-oxo-3-arylpropanedithioates by using ferric sulfate ($Fe_2(SO_4)_3{\cdot}xH_2O$) at 80 °C. Mild reaction conditions, good yields, and shorter reaction times are some of the salient features of the present protocol. One of the products has a Cl···S interaction in its crystal structure.





ChemViews magazine
DOI: **10.1002/chemv.201200148**

Intellectual Property

Global Intellectual Property Trends

The latest data show a return to growth for trademark and patent applications. Applications for the streamlined international patent application process, the Patent Cooperation Treaty (PCT), set a new record in 2011. ChemViews magazine looks at the trends in patent applications, the top governmental and academic applicants, and how the chemistry sub-disciplines compare.