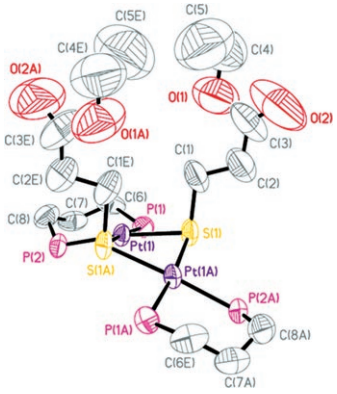
Platinum–Thiolate Complexes

S. H. Chong, D. J. Young, T. S. A. Hor*

Pressure-Assisted Hetero- and Homodialkylation of Sulfide in $[Pt_2(\mu\text{-}S)_2(dppp)_2]$: One-Pot Conversion of $\{Pt_2(\mu\text{-}S)_2\}$ into $\{Pt_2(SR)_2\}$ and $\{Pt_2(SR)(SR')\}$

Chem. Asian J.
DOI: **10.1002/asia.200700203**



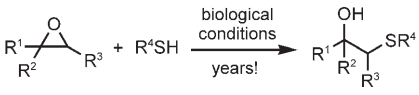
Cool under pressure: Elevated pressure and the use of dppp ($Ph_2P(CH_2)_3PPh_2$) to enhance the nucleophilicity of the sulfide centers in $[Pt_2(\mu\text{-}SR)(\mu\text{-}S)(dppp)_2]^+$ lead to the successful synthesis of novel diplatinum complexes that contain hetero- and homothiolate bridges. Functional alkyls and aryls are thus converted into functional thiolates.

Epoxides

B. J. Albert, K. Koide*

How Rapidly Do Epoxides Nonspecifically Form Covalent Bonds with Thiols in Water?

ChemBioChem
DOI: **10.1002/cbic.200700365**



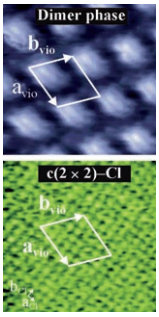
Rating reaction rates. Due to some concerns about the reactivity of epoxides towards the most abundant and powerful nucleophiles, thiols, in a biological setting, we report kinetic data for the consumption of five common epoxide motifs in the presence of a thiol under biologically relevant conditions.

Monolayers

D. T. Pham, K. Wandelt, P. Broekmann*

2D Ordering Phenomena Under Non-Equilibrium Conditions: An In Situ STM Approach

ChemPhysChem
DOI: **10.1002/cphc.200700507**



Ordering phenomena: The "reactive" adsorption and lateral ordering of redox-active dibenzyl viologens (DBV) on a chloride-modified Cu(100) electrode surface is studied. At electrode potentials where the first electron transfer step from the di-cationic to the radical mono-cationic viologen takes place, the preferred products at the surface are metastable viologen dimer species (see STM images).

Peptide Analogues

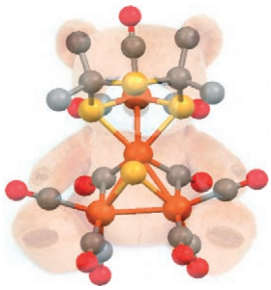
L. Gomez-Paloma, I. Bruno, E. Cini, S. Khochbin, M. Rodriquez, M. Taddei,* S. Terracciano, K. Sadoul

Design and Synthesis of Cyclopeptide Analogues of the Potent Histone Deacetylase Inhibitor FR235222

ChemMedChem
DOI: **10.1002/cmdc.200700095**

FR235222, one of the most potent HDAC inhibitors, is a natural tetrapeptide formed by some not easily available amino acids. We found that it is possible to build a structurally similar tetrapeptide made with simpler amino acids but maintaining Ahoda (indispensable) which has the high activity of the parent natural product and shows selective inhibition of class 1 histone deacetylase.

The synthesis of novel structural models for the active site of [Fe-only] hydrogenase is described starting from 1,2,4-trithiolane and its derivatives. The products are characterised by spectroscopic methods and X-ray structure analyses. Density functional calculations are reported for a representative example of the unusual tetranuclear iron clusters formed.

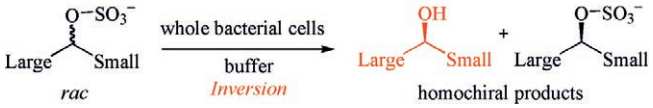


[Fe-only] Hydrogenase Models

J. Windhager, H. Görls, H. Petzold, G. Mloston, G. Linti,* W. Weigand*

Reactions of 1,2,4-Trithiolanes with Nonacarbonyldiiron: Sulfurdithiolatodiiron and -tetrairon Complexes as Mimics for the Active Site of [Fe-only] Hydrogenase

Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.200700465**



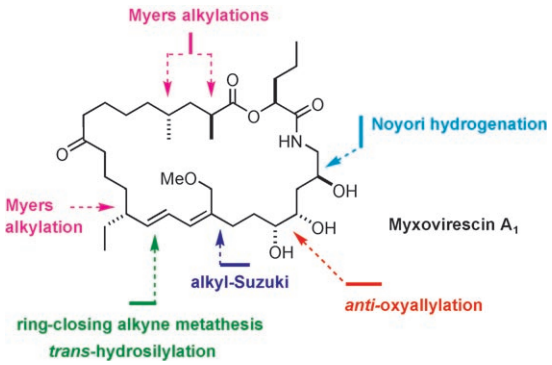
Highly enantioselective biohydrolysis of *rac-sec*-alkyl sulfate esters by *Pseudomonas* spp. proceeded with strict inversion of configuration.

Enantioselective Biohydrolysis

P. Gadler, K. Faber*

Highly Enantioselective Biohydrolysis of *sec*-Alkyl Sulfate Esters with Inversion of Configuration Catalysed by *Pseudomonas* spp.

Eur. J. Org. Chem.
DOI: **10.1002/ejoc.200700637**



A convergent total synthesis of the antibiotic macrolide myxovirescin A_1 is described that is largely based on reagent- and catalyst-controlled transformations. This includes a highly regioselective Negishi reaction of a dibromo-alkene, a palladium-catalyzed alkyl-Suzuki coupling, an exquisitely selective ring-closing alkyne metathesis, and a ruthenium-catalyzed *trans*-hydrosilylation tandem.

Natural Poducts

A. Fürstner,* M. Bonnekessel, J. T. Blank, K. Radkowski, G. Seidel, F. Lacombe, B. Gabor, R. Mynott

Total Synthesis of Myxovirescin A_1

Chem. Eur. J.
DOI: **10.1002/chem.200700926**

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