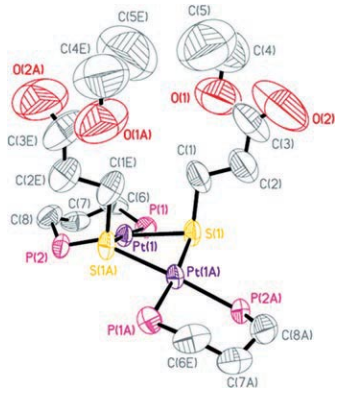
# SPOTLIGHTS …

## *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**



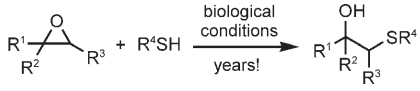

**Cool under pressure**: Elevated pressure and the use of dppp ($Ph_2P(CH_2)_3PPh_2$) to enhance the nucleophilicity of the sulfide centers in $[Pt_2(\mu\text{-}SR)(\mu\text{-}S)(dppp)_2]^+$ lead to the successful synthesis of novel diplatinum complexes that contain hetero- and homothiolate bridges.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



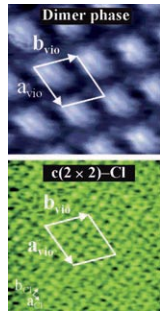

**Rating reaction rates**. Due to some concerns about the reactivity of epoxides towards the most abundant and powerful nucleophiles, thiols, in a biological setting, we report kinetic data for the consumption of five common epoxide motifs in the presence of a thiol under biologically relevant conditions.

## *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**



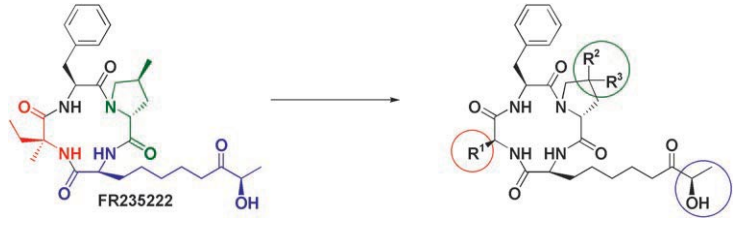

**Ordering phenomena**: The "reactive" adsorption and lateral ordering of redox-active dibenzyl viologens (DBV) on a chloride-modified Cu(100) electrode surface is studied. At electrode potentials where the first electron transfer step from the di-cationic to the radical mono-cationic viologen takes 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**

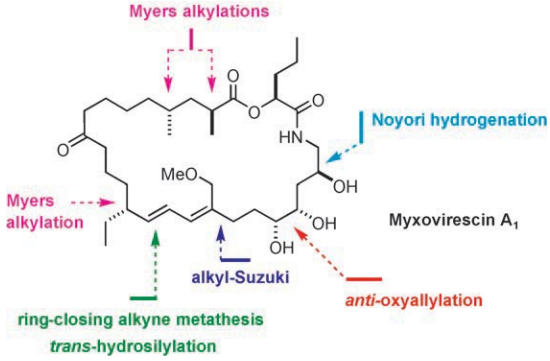



**FR235222**, one of the most potent HDAC inhibitors, is a natural tetrapeptide formed by some not easily available amino acids. We found that it is possible to build a structurally similar tetrapeptide made with simpler amino acids but maintaining Ahoda (indispensable) which has the high activity of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

EurJIC European Journal of Inorganic Chemistry

## *Natural Poducts*



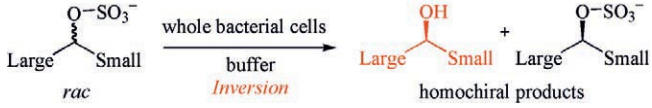

**A convergent total synthesis** of the antibiotic macrolide myxovirescin $A_1$ is described that is largely based on reagent- and catalyst-controlled transformations. This includes a highly regioselective Negishi reaction of a dibromoalkene, a palladium-catalyzed alkyl-Suzuki coupling, an exquisitely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

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**

## *Enantioselective Biohydrolysis*




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

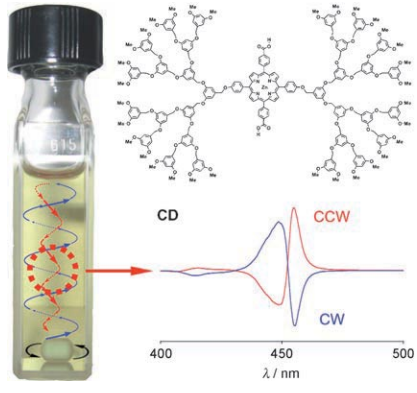
P. Gadler, K. Faber*

**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**

## *Macroscopic Chirality*

**Which way around?** J-aggregated zinc porphyrin dendrimer can be used to detect the macroscopic chirality of a vortex. The sign of the circular dichroism response changes quickly upon switching from clockwise (CW) to counterclockwise (CCW) stirring (see picture). The observed chiroptical activity most likely arises from a macroscopic helical alignment of nanofibers formed from the polymeric J-aggregate.




A. Tsuda,* M. A. Alam, T. Harada, T. Yamaguchi, N. Ishii, T. Aida*

**Spectroscopic Visualization of Vortex Flows Using Dye-Containing Nanofibers**

*Angew. Chem. Int. Ed.*
DOI: **10.1002/anie.200703083**

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