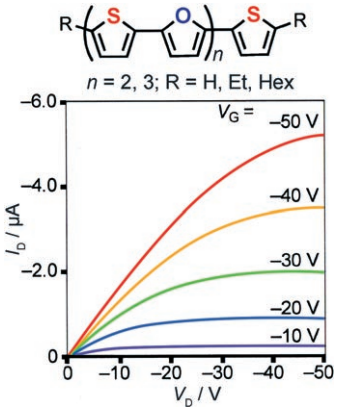
Oligo(thienylfuran)s

Y. Miyata, M. Terayama, T. Minari, T. Nishinaga, T. Nemoto, S. Isoda, K. Komatsu*

Synthesis of Oligo(thienylfuran)s with Thiophene Rings at Both Ends and Their Structural, Electronic, and Field-Effect Properties

Chem. Asian J.
DOI: **10.1002/asia.200700254**

SOS! Thin films of the title oligomers prepared by vacuum deposition and/or spin coating have their structural and electronic properties as well as film morphologies investigated. Field-effect transistor mobilities of top-contact devices made from the films are as high as 10^{-2}–10^{-3} $cm^2 V^{-1} s^{-1}$.

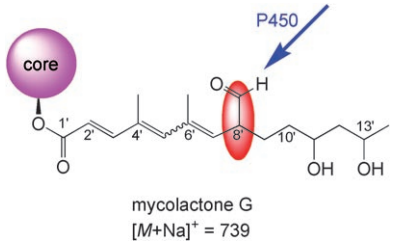


Mycolactone Toxin

H. Hong, T. Stinear, J. Porter, C. Demangel, P. F. Leadlay*

A Novel Mycolactone Toxin Obtained by Biosynthetic Engineering

ChemBioChem
DOI: **10.1002/cbic.200700411**



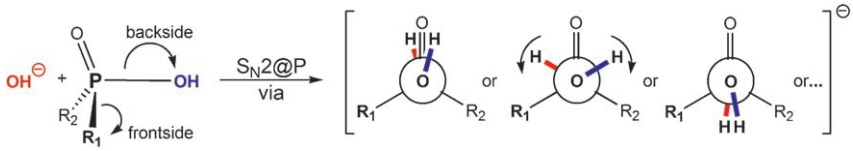
A novel structural variant of the mycobacterial polyketide toxin mycolactone has been obtained by cloning a P450 hydroxylase gene from a related strain. This technique increases the range of available mycolactones for studies on the mode of action of the toxin.

Nucleophilic Substitution

M. A. van Bochove, M. Swart, F. M. Bickelhaupt*

Nucleophilic Substitution at Phosphorus Centers (S_N2@P)

ChemPhysChem
DOI: **10.1002/cphc.200700488**



Not all paths lead to Rome: S_N2@P reactions that involve an OH^- nucleophile and/or leaving group may follow various reaction channels that can lead to the same—but in some cases also to different—products. The backside S_N2@P process is found to compete with thermodynamically more favorable frontside pathways (see reaction).

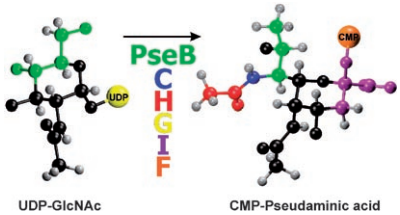
Antibiotics

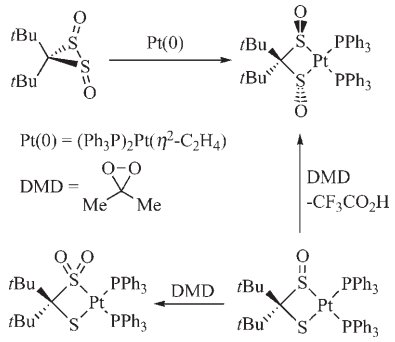
D. J. McNally,* I. C. Schoenhofen, R. S. Houliston, N. H. Khieu, D. M. Whitfield, S. M. Logan, H. C. Jarrell, J.-R. Brisson

CMP-Pseudaminic Acid is a Natural Potent Inhibitor of PseB, the First Enzyme of the Pseudaminic Acid Pathway in *Campylobacter jejuni* and *Helicobacter pylori*

ChemMedChem
DOI: **10.1002/cmdc.200700170**

Deadly decorations. *Campylobacter jejuni* and *Helicobacter pylori* decorate their flagella, which are essential for virulence, with pseudaminic acid (Pse). Pse production is feedback-regulated in the bacterial cell by CMP-pseudaminic acid, a potent inhibitor of PseB, the first enzyme of the Pse pathway. Herein, STD NMR was used to map binding epitopes for PseB and to characterize the interaction between PseB and CMP-Pse.





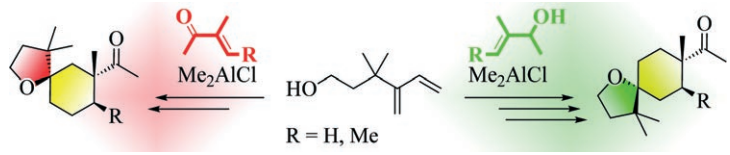
Oxidation of 3,3-di-*tert*-butyldithiirane 1-oxide with dimethyldioxirane (DMD) gave the title 1,2-dioxide, and its treatment with a Pt^0 complex provided the (disulfenato)Pt^{II} complex. Oxidation of the related sulfenato–thiolato complex with DMD gave the sulfinato–thiolato complex and the same reaction in the presence of CF_3COOH provided the disulfenato complex.

Sulfur–Platinum Complex

A. Ishii,* M. Ohishi, N. Nakata

Preparation of 3,3-Di-*tert*-butylthiirane *trans*-1,2-Dioxide and Its Reaction with a Platinum(0) Complex To Give a (Disulfenato)platinum(II) Complex: Regioselectivity of the Oxidation of a Related (Sulfenato–thiolato)platinum(II) Complex

Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.200700824**



Woody and water-soluble? As paradoxical as for wood in real life, so it was for woody odorants such as Iso E Super [$\log(P_{ow}) = 5.7$] to be water-soluble. But by spiroannulation of a dimethyltetrahydrofuranyl moiety, woody odorants with $\log(P_{ow}) \leq 4.0$ could indeed be designed. And on the way, a new unusual tethering effect for[jyDiels–Alder reactions was discovered, which could be "switched on" or "switched off" depending on the functional group of the dienophile.

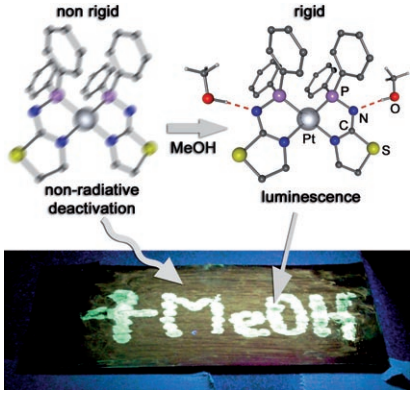
Unexpected Tethering

P. Kraft,* K. Popaj

Unexpected Tethering in the Synthesis of Methyl-Substituted Acetyl-1-oxaspiro[4.5]decanes: Novel Woody–Ambery Odorants with Improved Bioavailability

Eur. J. Org. Chem.
DOI: **10.1002/ejoc.200700833**

Methanol under a new light: The presence of the thiazoline moiety strongly influences the chemical and luminescence properties of phosphino-aminothiazoline bischelated complexes of Pt^{II}. Reaction with Au^{I} salts affords dimetallic complexes, while hydrogen bonding to MeOH exerts a rigidochromic effect (see figure) resulting in the "switching on" of the luminescence. A combined photophysical and crystallographic study is described.



Luminescent Complexes

R. Pattacini, C. Giansante, P. Ceroni,* M. Maestri, P. Braunstein*

Phosphino-Aminothiazoline Platinum(II) and Platinum(II)/Gold(I) Complexes: Structural, Chemical and Vapoluminescent Properties

Chem. Eur. J.
DOI: **10.1002/chem.200701081**

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