

Nanowires

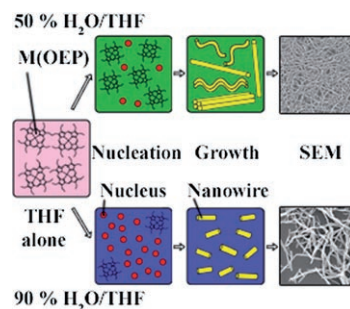
M.-H. So, V. A. L. Roy, Z.-X. Xu,
S. S.-Y. Chui, M.-Y. Yuen, C.-M. Ho,
C.-M. Che*

Controlled Self-Assembly of Functional
Metal Octaethylporphyrin 1D Nanowires
by Solution-Phase Precipitative Method

Chem. Asian J.

DOI: 10.1002/asia.200800162

Self-assemble into nanowires: Metal octaethylporphyrins can self-assemble into 1D nanowires through intermolecular $\pi\cdots\pi$ interactions. The divalent metal cation in the octaethylporphyrin ring results in a larger extent of “face-to-face” stacking and better overlap of M(OEP) molecules by intermolecular $\pi\cdots\pi$ interactions compared to free octaethylporphyrin (H_2OEP) molecules. These nanowires exhibit hole transporting characteristics with charge-carrier mobility up to $10^{-3}\text{--}10^{-2}\text{ cm}^2\text{V}^{-1}\text{ s}^{-1}$.



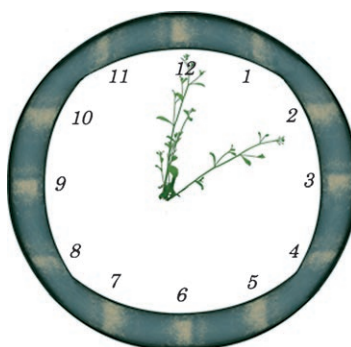
Circadian Rhythm

L. Kozma-Bognár, K. Káldi*

Synchronization of the Fungal and the
Plant Circadian Clock by Light

ChemBioChem

DOI: 10.1002/cbic.200800385



Right on time: Circadian clocks are endogenous time keeping devices that provide temporal control of physiology in accordance with predicted daily changes in the environment. In this review, knowledge about light absorption/transduction and light-induced modifications of oscillator components in *Neurospora crassa* and *Arabidopsis thaliana* is summarized. These systems provide a basis for understanding the molecular mechanisms of entrainment in fungal and plant circadian systems.

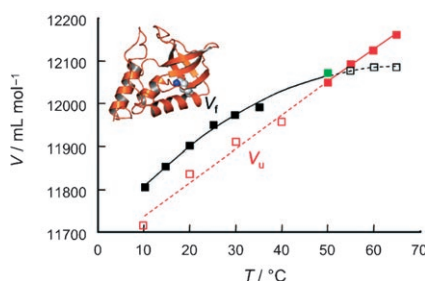
Protein Hydration

L. Mitra, J.-B. Rouget,
B. Garcia-Moreno,* C. A. Royer,*
R. Winter*

Towards a Quantitative Understanding of
Protein Hydration and Volumetric
Properties

ChemPhysChem

DOI: 10.1002/cphc.200800405



Using pressure perturbation calorimetry the expansion coefficients of variants of SNase are determined and used to calculate quantitatively the temperature dependent volumetric and hydration properties of the folded and unfolded states of the protein (see figure). We present the first experimental plot of the volume of both the folded and unfolded states of a protein.

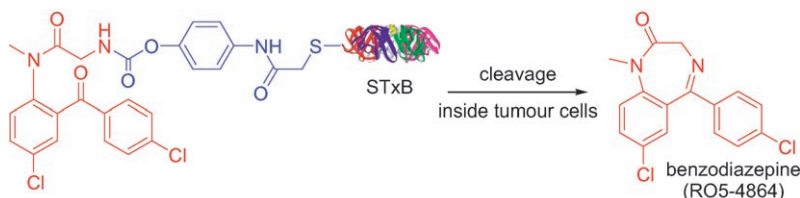
Prodrug Conjugates

A. El Alaoui, F. Schmidt,* M. Sarr,
D. Decaudin, J.-C. Florent, L. Johannes

Synthesis and Properties of a
Mitochondrial Peripheral Benzodiazepine
Receptor Conjugate

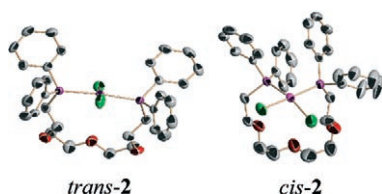
ChemMedChem

DOI: 10.1002/cmdc.200800249



A water-soluble benzodiazepine: RO5-4864, a pro-apoptotic benzodiazepine, was solubilised by conjugation with STxB (B-subunit of Shiga toxin). After receptor

recognition and internalisation of the prodrug, the active principle is released and kills tumour cells.



An Eyring analysis was carried out on the isomerization of *cis*-[PdCl₂{Ph₂P-(CH₂CH₂O)₃CH₂CH₂PPh₂-P,P'}] (*cis*-1). Crystal structures of *cis*-1, *cis*-2, and *trans*-2, supported our conclusions as to the nature of the isomerization mechanism of the two square-planar metallacrown ethers.

cis-*trans* Isomerization

S. B. Owens Jr., D. C. Smith Jr.,
C. H. Lake, G. M. Gray*

Synthesis, Characterization, and *cis*-*trans* Isomerization Studies of *cis*-[PdCl₂{Ph₂P-(CH₂CH₂O)₃CH₂CH₂PPh₂-P,P'}] and *trans*-[PtCl₂{Ph₂P(CH₂CH₂O)₃CH₂CH₂-PPh₂-P,P'}] Metallacrown Ethers

Eur. J. Inorg. Chem.
DOI: 10.1002/ejic.200800436



The catalytic asymmetric dehydration of β-hydroxy *tert*-butyl esters by kinetic resolution has been explored. In the presence of a prolinol chiral ligand and

BrZnCH₂CO₂*t*Bu highly enantio-enriched β-hydroxy esters were formed with selectivity factors up to 59.

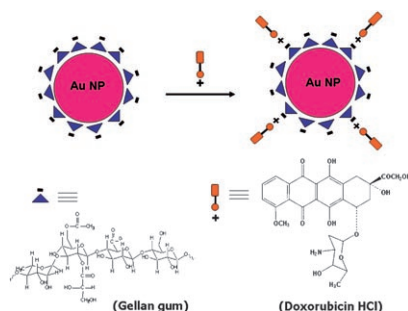
Asymmetric Dehydration

M. H. Lee, E. T. Choi, D. Kim, Y. M. Lee,
Y. S. Park*

Kinetic Resolution of β-Alkenyl-, β-Alkynyl- and β-Flavanyl-Substituted β-Hydroxy Esters in Asymmetric Dehydration

Eur. J. Org. Chem.
DOI: 10.1002/ejoc.200800807

Gold and gum: Natural gum reduced/capped gold nanoparticles upon subsequent loading of doxorubicin hydrochloride, an anti-cancer drug (see graphic), displayed superior cytotoxic effect on human glioma cell lines and also showed enhanced stability to electrolyte additions and pH changes.



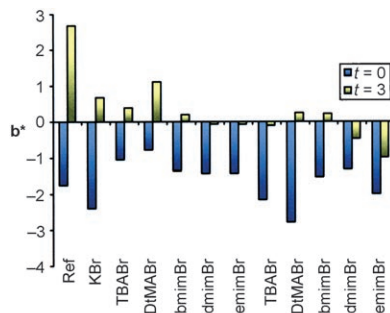
Drug Delivery

S. Dhar, E. M. Reddy, A. Shiras,*
V. Pokharkar,* B. L. V. Prasad*

Natural Gum Reduced/Stabilized Gold Nanoparticles for Drug Delivery Formulations

Chem. Eur. J.
DOI: 10.1002/chem.200801093

Well worth the paper it's written on: Iron gall inks can deteriorate the paper on which they were used. Stabilization treatments of historical iron gall inked paper consist of deacidification and the addition of antioxidants. A new treatment based on 1-butyl-2,3-dimethylimidazolium bromide (bdmimBr), both in aqueous and alcoholic solution, prevents oxidative deterioration of the paper without yellowing the paper nor discolouring the ink.



Cultural Heritage

G. Ceres, V. Conte,* V. Mirruzzo,
J. Kolar, M. Strlič

Imidazolium-Based Ionic Liquids for the Efficient Treatment of Iron Gall Inked Papers

ChemSusChem
DOI: 10.1002/cssc.200800111



Auf diesen beiden Seiten weisen wir auf wichtige aktuelle Beiträge in unseren Schwesterzeitschriften hin. Wenn Sie die Seiten online lesen, dann können Sie die

Artikel mit einem Klick direkt aufrufen, ansonsten sind sie durch Eingabe der DOIs über Wiley InterScience leicht online zugänglich.