SPOTLIGHTS ...



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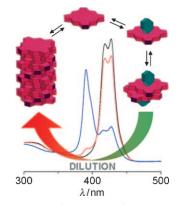


Porphyrin Aggregation -

F. Helmich, C. C. Lee, M. M. L. Nieuwenhuizen, J. C. Gielen, P. C. M. Christianen, A. Larsen, G. Fytas, P. E. L. G. Leclère, A. P. H. J. Schenning,* E. W. Meijer*

Dilution-Induced Self-Assembly of Porphyrin Aggregates: A **Consequence of Coupled Equilibria**

Piggy-back porphyrins: The presence of a Lewis base affects the cooperative self-assembly of zinc porphyrins remarkably. Driven by the susceptibility of the monomer towards the axial ligand, monomer scavenging caused depolymerization of porphyrin aggregates, and dilution caused aggregation by a re-entrant phase transition. Model predictions were validated by dilution experiments.



Angew. Chem. Int. Ed. DOI: 10.1002/anie.201000162

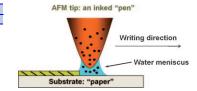


Nanomaterials

Y. Li,* H. Sun, H. Chu

Controlled Preparation of Inorganic Nanostructures on Substrates by Dip-Pen Nanolithography

Dip-pen nanolithography (DPN) can be used as a feasible technique for the fabrication of various inorganic nanostructures on substrates with nanometer-scaled resolution. The high registration and great flexibility in shape and location control make it unique and powerful. This atomic force microscopy based technique also offers convenience for in situ characterization of the obtained nanostructures. This Focus Review summarizes the challenges and progress in preparing inorganic nanostructures with DPN.



Chem. Asian J.

DOI: 10.1002/asia.200900681

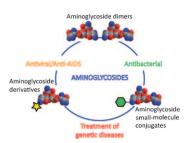


Drug Resistance

J. L. Houghton, K. D. Green, W. Chen, S. Garneau-Tsodikova *

The Future of Aminoglycosides: The End or Renaissance?

Microbes, HALT! Since the 1940s toxicity, resistance, and complex chemical syntheses have been associated with the use of aminoglycosides as antibacterials and antivirals. However, aminoglycosides have regrouped and are ready for a rematch. We present an overview of the problems and the new developments they have in their arsenal for combat.



ChemBioChem

DOI: 10.1002/cbic.200900779



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ChemPhysChem

DOI: 10.1002/cphc.200900906

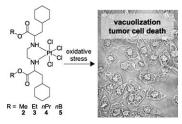
Carbon Nanotubes

J. F. Scott*

Leading the Way to Lead-Free

Out with the old: The observation of a morphotropic phase boundary in bismuth ferrite under stress is Highlighted herein together with an exciting development for monoclinic structured BiFeO₃ films (see picture). These materials may pave the way to a new generation of lead-free actuator/transducer devices.





ChemMedChem

DOI: 10.1002/cmdc.201000058

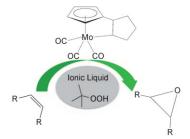
Antitumor Agents -

J. M. Lazić, L. Vučićević, S. Grgurić-Šipka, K. Janjetović, G. N. Kaluđerović, M. Misirkić, M. Gruden-Pavlović, D. Popadić, R. Paschke, V. Trajković,* T. J. Sabo*

Synthesis and in vitro Anticancer Activity of Octahedral Platinum(IV) Complexes with Cyclohexyl-Functionalized Ethylenediamine-N,N'-Diacetate-Type Ligands

Octahedral Pt^{IV} complexes with cyclohexyl group functionalized edda-type ligands kill tumor cells via oxidative stress-mediated caspase-independent necrosis-like cell death associated with massive cytoplasmic vacuolization.





ChemSusChem

DOI: 10.1002/cssc.201000008

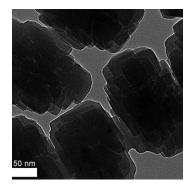
Epoxidation

D. Betz, A. Raith, M. Cokoja, F. E. Kühn*

Olefin Epoxidation with a New Class of *Ansa*-Molybdenum Catalysts in Ionic Liquids

Is that a final *ansa***?** Different room temperature ionic liquids (RTILs) are examined as solvents in the biphasic epoxidation of selected olefins with the *ansa* compounds **1** and **2** as catalyst precursors. Turnover frequencies of up to $44\,000~h^{-1}$ are reached and the catalyst can easily be separated and recycled.





ChemCatChem

DOI: 10.1002/cctc.200900312

Zeolites -

Z. Shan, Z. Lu, L. Wang, C. Zhou, L. Ren, L. Zhang, X. Meng,* S. Ma, F.-S. Xiao*

Stable Bulky Particles Formed by TS-1 Zeolite Nanocrystals in the Presence of H_2O_2

Fat boy slim: Mechanically stable bulky TS-1 (B-TS-1) catalysts are synthesized in the presence of H_2O_2 and are successfully collected by a filtration route. The B-TS-1 zeolite, formed by strong interactions of the nanocrystals with each other, shows high catalytic activity in phenol hydroxylation and is easily separated for recycling.



SPOTLIGHTS

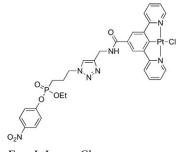


Selective Protein Labelling -

B. Wieczorek, B. Lemcke, H. P. Dijkstra, M. R. Egmond, R. J. M. Klein Gebbink,* G. van Koten*

Site-Selective Ser-Hydrolase Labelling with a Luminescent Organometallic NCN-Platinum Complex

A novel luminescent organometallic label consisting of a NCN–platinum complex attached to a phosphonate has been synthesized and tested in the labelling of serine hydrolases. The site-selective dye proved to be a photostable dye suitable for gel-electrophoresis studies.



Eur. J. Inorg. Chem. DOI: 10.1002/ejic.200900980



Metal-Assisted Organocatalysis

C. Zhong, X. Shi*

When Organocatalysis Meets Transition-Metal Catalysis

The fast development of organocatalysis has significantly enriched the field of organic synthesis. Recent success in combining transition metal complexes with organocatalysis has led to the emergence of a promising new direction with potential discoveries of new reactivity patterns and novel synthetic strategies.



Eur. J. Org. Chem.

DOI: 10.1002/ejoc.201000004

