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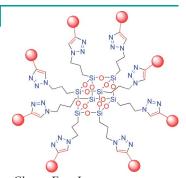


#### Cage Compounds

D. Heyl, E. Rikowski, R. C. Hoffmann, J. J. Schneider, W.-D. Fessner\*

#### A "Clickable" Hybrid Nanocluster of Cubic Symmetry

**Platonic scaffold:** Octa(azidopropyl) cube-octameric silsesquioxane is a versatile scaffold for uniform eight-fold symmetric decoration by efficient Huisgen-type 1,3-dipolar cycloaddition under both thermal and Cu<sup>I</sup>-catalyzed conditions (see scheme). Applications are demonstrated for the formation of glycoclusters, as well as an entry to dendrimer synthesis by functional azide-to-alkyne reversion with implicit doubling to sixteen-fold attachment sites.



*Chem. Eur. J.* DOI: **10.1002/chem.201000488** 



## 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

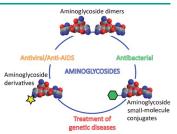


### Drug Resistance

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** 

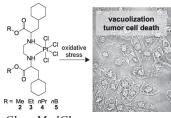
#### Carbon Nanotubes

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  ${\rm BiFeO_3}$  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** 

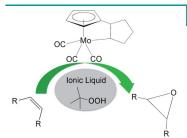
## Antitumor Agents

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<sup>IV</sup> 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**

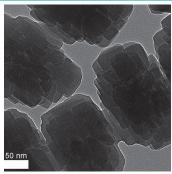
Zeolites

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

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  $\rm H_2O_2$ 

**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.



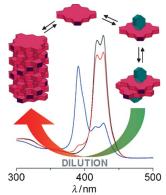


## Porphyrin Aggregation

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



#### **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** 

