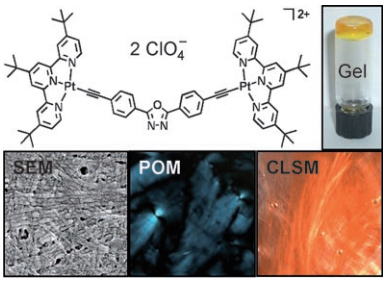
Phosphorescent Gelators

W. Lu, Y.-C. Law, J. Han, S. S.-Y. Chui, D.-L. Ma, N. Zhu, C.-M. Che*

A Dicationic Organoplatinum(II) Complex Containing a Bridging 2,5-Bis-(4-ethynylphenyl)-[1,3,4]oxadiazole Ligand Behaves as a Phosphorescent Gelator for Organic Solvents

Chem. Asian J.
DOI: **10.1002/asia.200700265**



It all gels! A binuclear terpyridyl platinum(II) salt with a 2,5-bis(4-ethynylphenyl)-[1,3,4]oxadiazole bridging ligand acts as a low-molecular-mass phosphorescent gelator for acetonitrile or acetonitrile/alcohol mixtures. Notably, this metal-containing gelator carries neither conventional gelating motifs nor long alkyl chains.

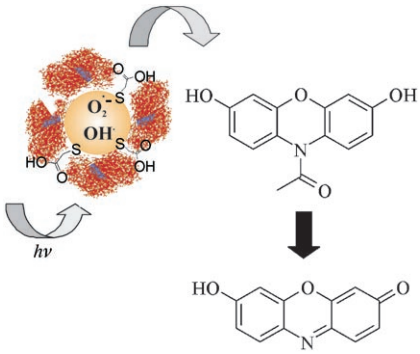
Quantum Dots

L. Fruk, V. L. Rajendran, M. Sprengler, C. M. Niemeyer*

Light-Induced Triggering of Peroxidase Activity Using Quantum Dots

ChemBioChem
DOI: **10.1002/cbic.200700594**

On the dot. Peroxidase enzymes, which play a key role in numerous applications in biocatalysis and bioanalytics, were reversibly switched on and off by photoirradiation in the presence of CdS quantum dots (QDs). Four different peroxidases were successfully activated by using this QD-irradiation methodology. These light switchable catalysts could prove useful in biosensing, biocatalysis, and design of novel cellular assay procedures.

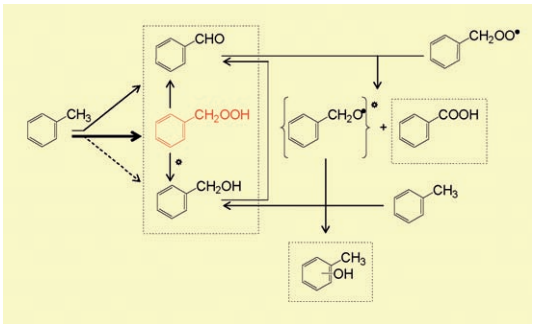


Toluene

I. Hermans,* J. Peeters, L. Vereecken, P. A. Jacobs

Mechanism of Thermal Toluene Autoxidation

ChemPhysChem
DOI: **10.1002/cphc.200700563**



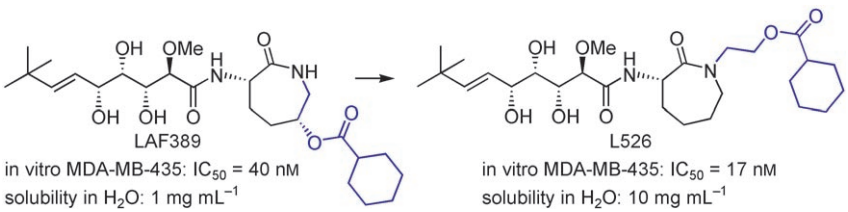
The pivotal intermediate in toluene autoxidation (see scheme) is identified as the highly reactive benzyl hydroperoxide by a combined experimental and theoretical investigation. Co-oxidation of benzaldehyde yields benzoic acid and benzyl alcohol, and causes deactivation by the formation of radical inhibitors such as cresols.

Natural Products

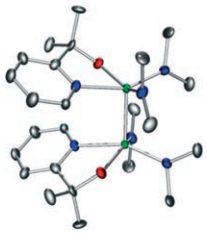
G. Liu, Y.-M. Ma, W.-Y. Tai, C.-M. Xie, Y.-L. Li, J. Li,* F.-J. Nan*

Design, Synthesis, and Biological Evaluation of Caprolactam-Modified Bengamide Analogues

ChemMedChem
DOI: **10.1002/cmdc.200700214**



A series of potent, water-soluble N-substituted bengamide analogues were discovered through diverse derivatives of the caprolactam unit of bengamide. Important SAR information was also gathered, and is different from previously reported SARs of this compound class. We therefore present a new view of bengamide natural products.



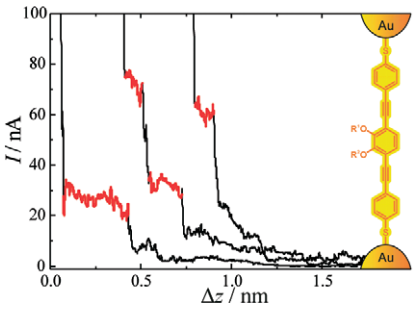
A new dimeric tungsten(III) complex containing amido and chelating pyridine–alkoxido ligands was synthesized through protonolysis of $[W_2(NMe_2)_6]$ by 2-(2-pyridyl)propan-2-ol and fully characterized. Grafting of this compound onto silica has been investigated by elemental analysis, DRIFTS, and solid-state NMR spectroscopy.

Ditungsten(III) Complexes

O. Coutelier, R. M. Gauvin,* G. Nowogrocki, J. Trébosc, L. Delevoye, A. Mortreux*

A New Donor-Stabilized Ditungsten Amido Alkoxido Species: Synthesis, Crystal Structure, Fluxionality, and Grafting onto Silica

Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.200700732**



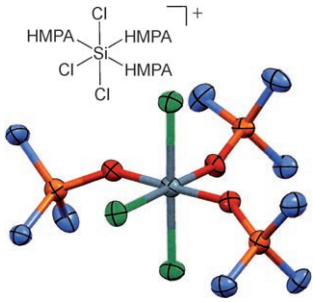
Several molecular rods comprising variously protected catechol subunits have been synthesized and investigated as potential precursors of a catechol-functionalized molecular rod. Furthermore, molecular junctions formed by the dimethyl-protected catechol-functionalized rod in an electrochemical STM set-up allowed preliminary single-molecule transport measurements.

Molecular Electronics

N. Weibel, A. Błaszczyk, C. von Hänisch, M. Mayor,* I. Pobelov, T. Wandlowski,* F. Chen, N. Tao*

Redox-Active Catechol-Functionalized Molecular Rods: Suitable Protection Groups and Single-Molecule Transport Investigations

Eur. J. Org. Chem.
DOI: **10.1002/ejoc.200700810**



The Lewis acid–Lewis base complexation chemistry of $SiCl_4$ and HMPA has been studied in solution and the solid state. The cationic complex 3 HMPA·$SiCl_3^+$ HCl_2^- (see figure) has been structurally characterized for the first time.

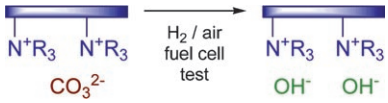
Organic Chemistry

S. E. Denmark,* B. M. Eklov

Neutral and Cationic Phosphoramide Adducts of Silicon Tetrachloride: Synthesis and Characterization of Their Solution and Solid-State Structures

Chem. Eur. J.
DOI: **10.1002/chem.200701466**

Fuelling the discussion: A carbonate-form metal-cation-free alkaline membrane was evaluated in a fuel cell, and, contrary to prior wisdom, the carbonate content of the membranes was found to decrease. Surprisingly, the power performance was higher relative to tests with the equivalent hydroxide-form membranes.



Fuel Cells

L. A. Adams, S. D. Poynton, C. Tamain, R. C. T. Slade, J. R. Varcoe*

A Carbon Dioxide Tolerant Aqueous-Electrolyte-Free Anion-Exchange Membrane Alkaline Fuel Cell

ChemSusChem
DOI: **10.1002/cssc.200700013**

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.