

## Microporous Materials

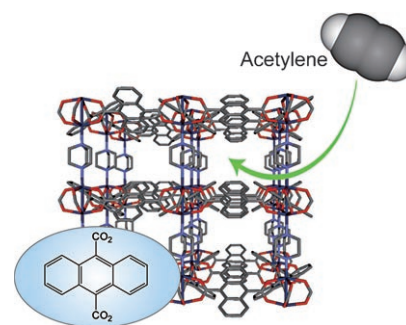
D. Tanaka, M. Higuchi, S. Horike,  
R. Matsuda, Y. Kinoshita, N. Yanai,  
S. Kitagawa\*

Storage and Sorption Properties of  
Acetylene in Jungle-Gym-Like Open  
Frameworks

Chem. Asian J.

DOI: 10.1002/asia.200800112

**A perfect fit:** Studies into the acetylene-sorption properties of six porous coordination polymers (PCPs) with a jungle-gym-like 3D network structure reveal that the PCP with anthracene units adsorb greater quantities of acetylene at 298 K than other conventional porous materials. The size of the micropores of this PCP means that it adsorbs well even at low pressures.



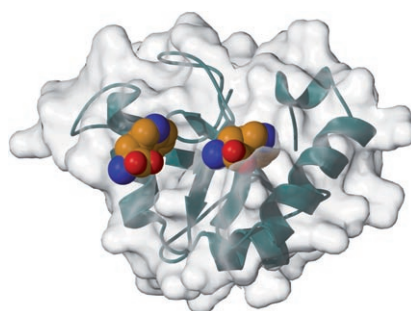
## NMR Spectroscopy

Y. Thielmann, J. Mohrlüder,  
B. W. Koenig,\* T. Stangler,  
R. Hartmann, K. Becker, H.-D. Höltje,  
D. Willbold\*

An Indole-Binding Site is a Major  
Determinant of the Ligand Specificity of  
the GABA Type A Receptor-Associated  
Protein GABARAP

ChemBioChem

DOI: 10.1002/cbic.200800117



**Precious tryptophan:** Binding partners of GABA<sub>A</sub> receptor associated protein (GABARAP) feature a conserved tryptophan. NMR spectroscopy studies on the GABARAP binding of indole and indole derivatives allowed us to distinguish two tryptophan-binding pockets with different ligand affinities (see figure). Analysis of the GABARAP–tryptophan interaction was based on experimental and bioinformatics approaches.

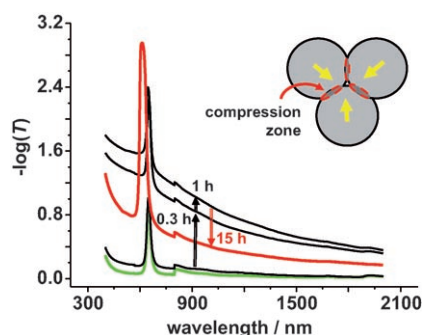
## Photonic Crystals

I. Popa, F. Marlow\*

Post-Deposition Opal Evolution

ChemPhysChem

DOI: 10.1002/cphc.200800159



**Still alive:** An artificial opal is a highly ordered assembly of nanoscopic spheres made by drying from a suspension. After drying, it is considered as stable, but herein, transformations in the dry state are revealed. The time evolution of the optical transmission spectra for polystyrene opals is followed for two days after deposition. The spectra show pronounced changes associated with a new sintering mechanism (see figure).

## Virtual Screening

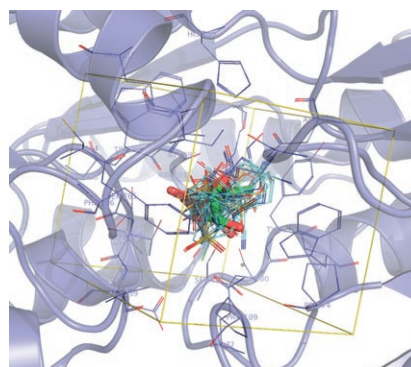
M. Li, N. Ni, H.-T. Chou, C.-D. Lu,  
P. C. Tai, B. Wang\*

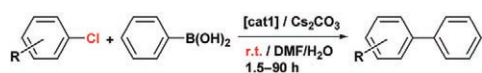
Structure-Based Discovery and  
Experimental Verification of Novel AI-2  
Quorum Sensing Inhibitors against  
*Vibrio harveyi*

ChemMedChem

DOI: 10.1002/cmdc.200800076

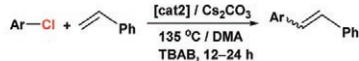
**Inhibition of quorum sensing** is recognized as a feasible approach to developing new antimicrobial agents. Virtual screening was conducted using the *V. harveyi* LuxP crystal structure. Two compounds were found to antagonize AI-2-mediated quorum sensing in *V. harveyi* without associated cytotoxicity. These two compounds have unique structures and will be very useful as probes for mechanistic studies and as leads for further structural optimization.





We present the syntheses and the molecular structures of novel palladacycles

and their catalytic activities in Suzuki and Heck reactions.



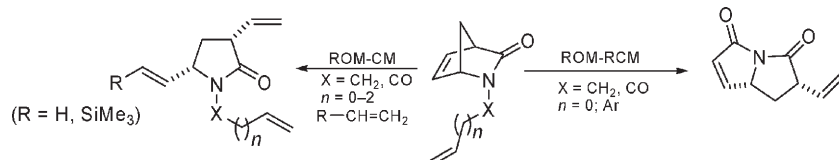
### Palladacycles in Coupling Reactions

M.-T. Chen, C.-A. Huang, C.-T. Chen\*

Palladacyclic Complexes Containing C,N-Type Ligands as Catalysts in Cross-Coupling Reactions

*Eur. J. Inorg. Chem.*

DOI: 10.1002/ejic.200800195



The chemoselectivity of the metathesis reactions of *N*-substituted 3-oxo-2-azabornene derivatives may be tuned by

using the second-generation Hoveyda-Grubbs catalyst.

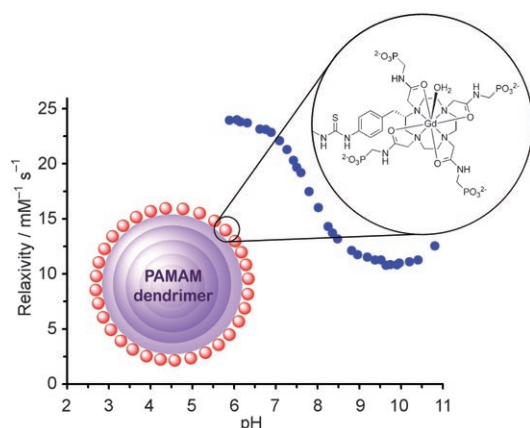
### Metathesis Reactions

A. Aljarilla, J. Plumet\*

Tuning the Chemoselectivity of the Metathesis Reactions of *N*-Substituted 2-Azabicyclo[2.2.1]hept-5-en-3-one

*Eur. J. Org. Chem.*

DOI: 10.1002/ejoc.200800450



**Improved response:** Covalently attaching a pH responsive MRI contrast agent (red) to a PAMAM dendrimer (purple) not only enhances the relaxivity pH

response of the agent but provide new insights into the mechanism of operation of the agent.

### Imaging Agents

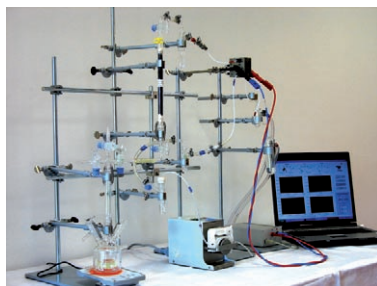
M. M. Ali, M. Woods, P. Caravan, A. C. L. Opina, M. Spiller, J. C. Fetting, A. D. Sherry\*

Synthesis and Relaxometric Studies of a Dendrimer-Based pH-Responsive MRI Contrast Agent

*Chem. Eur. J.*

DOI: 10.1002/chem.200800402

**Fuelling the future:** Hydrogen is generated from formic acid/amine adducts at room temperature and used directly in fuel cells. Ruthenium phosphine systems are active catalysts in this transformation. High turnover numbers are observed for  $[\{\text{RuCl}_2(\text{benzene})\}_2]$  in the presence of the bidentate ligand 1,2-bis-(diphenylphosphino)ethane. A similar enhancement in catalytic activities is observed with ruthenium bromide complexes.



### Hydrogen Generation

A. Boddien, B. Loges, H. Junge, M. Beller\*

Hydrogen Generation at Ambient Conditions: Application in Fuel Cells

*ChemSusChem*

DOI: 10.1002/cssc.200800093