

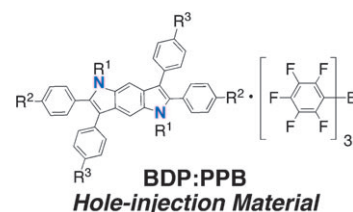


## OLEDs

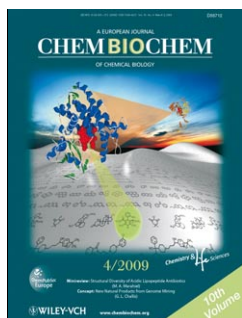
H. Tsuji,\* Y. Yokoi, C. Mitsui, L. Ilies, Y. Sato, E. Nakamura\*

Tetraaryl-Substituted Benzo[1,2-*b*:4,5-*b'*]dipyrroles: Synthesis, Properties, and Applications to Hole-Injection Materials in OLED Devices

**Yes, HIMs can!** A series of 2,3,6,7-tetraarylbenzo[1,2-*b*:4,5-*b'*]dipyrroles (BDPs) were synthesized using zinc-mediated double cyclization. Organic light-emitting diodes consisting of BDP:PPB as a hole-injection layer could be driven at a lower voltage than a PEDOT:PSS-based device. Correlation of the IP values with the driving voltage shed some light on the mechanism of hole-injection processes.



*Chem. Asian J.*  
DOI: [10.1002/asia.200800471](https://doi.org/10.1002/asia.200800471)

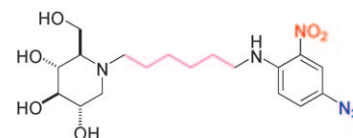


## Inhibitors

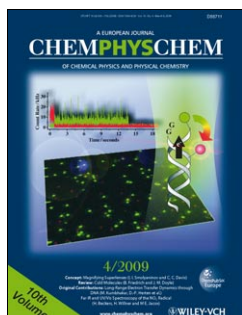
A. J. Rawlings, H. Lomas, A. W. Pilling, M. J.-R. Lee, D. S. Alonzi, J. S. S. Rountree, S. F. Jenkinson, G. W. J. Fleet, R. A. Dwek, J. H. Jones, T. D. Butters\*

Synthesis and Biological Characterisation of Novel *N*-Alkyl-Deoxynojirimycin  $\alpha$ -Glucosidase Inhibitors

**Illuminating glucosidases:** The shown photoaffinity probe for endoplasmic reticulum (ER)  $\alpha$ -glucosidases was found to be a highly potent inhibitor of  $\alpha$ -glucosidase I in vitro and equally effective at inhibiting cellular ER glucosidases, as determined by a free oligosaccharide (FOS) analysis.



*ChemBioChem*  
DOI: [10.1002/cbic.200900025](https://doi.org/10.1002/cbic.200900025)

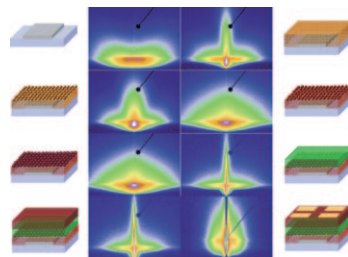


## Thin Titania Films

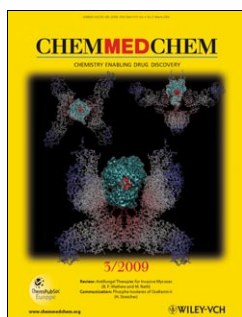
J. Perlich, M. Memesa, A. Diethert, E. Metwalli, W. Wang, S. V. Roth, A. Timmann, J. S. Gutmann, P. Müller-Buschbaum\*

Preservation of the Morphology of a Self-Encapsulated Thin Titania Film in a Functional Multilayer Stack: An X-Ray Scattering Study

**Looks matter:** Generally, the morphology of titania thin films is crucial for their performance, hence much effort is spent to tailor the desired morphology. X-ray scattering enables the monitoring of the crystalline titania layer morphology during build-up of the functional multilayer stack (see Figure). Herein evidence is provided that the morphology is preserved throughout the fabrication process.



*ChemPhysChem*  
DOI: [10.1002/cphc.200800800](https://doi.org/10.1002/cphc.200800800)

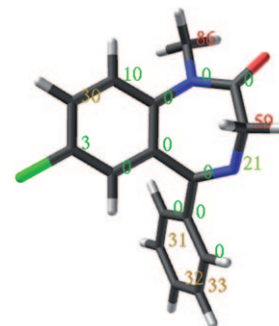


## Predicting Metabolism

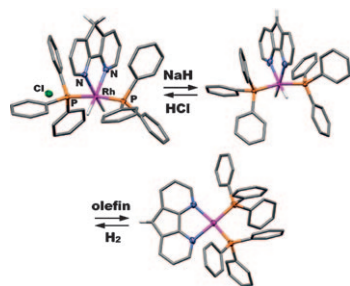
M. Hennemann, A. Friedl, M. Lobell, J. Keldenich, A. Hillisch, T. Clark,\* A. H. Göller\*

CypScore: Quantitative Prediction of Reactivity toward Cytochromes P450 Based on Semiempirical Molecular Orbital Theory

**CypScore predicts the reactivity** of competing positions in the same and different molecules to a variety of cytochrome P450 metabolic reactions on a single reactivity scale.



*ChemMedChem*  
DOI: [10.1002/cmdc.200800384](https://doi.org/10.1002/cmdc.200800384)



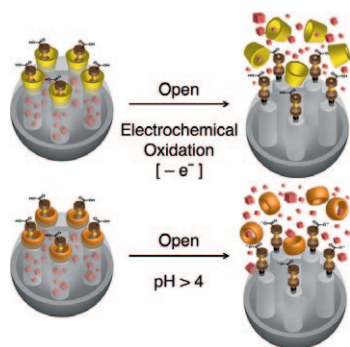
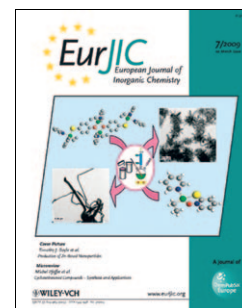
*Eur. J. Inorg. Chem.*  
DOI: 10.1002/ejic.200801195

## Rhodium 4,5-Diazafluorene Chemistry

H. Jiang, E. Stepowska, D. Song\*

Syntheses, Structures and Reactivities of Rhodium 4,5-Diazafluorene Derivatives

We report the syntheses, structures and reactivities of a series of rhodium 4,5-diazafluorene derivatives, including the interconversion of these complexes and catalytic olefin hydrogenation activities.



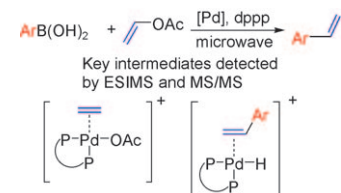
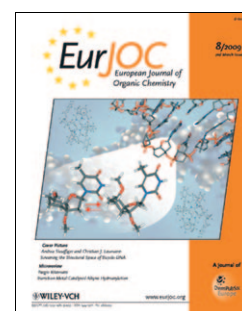
*Eur. J. Org. Chem.*  
DOI: 10.1002/ejoc.200801300

## Mechanized Nanoparticles

N. M. Khashab, A. Trabolsi, Y. A. Lau, M. W. Ambrogio, D. C. Friedman, H. A. Khatib, J. I. Zink,\* J. F. Stoddart\*

Redox- and pH-Controlled Mechanized Nanoparticles

Ferrocene-based mechanized nanoparticles have been prepared, loaded with Rhodamine dye, and then capped with either  $\beta$ -cyclodextrin (top) or cucurbit[7]uril (bottom). Both of these systems were operated successfully under redox (oxidation of ferrocenedicarboxylic acid) control in the presence of  $\beta$ -cyclodextrin and under pH (deprotonation of ferrocenedicarboxylic acid at pH > 4) control in the presence of cucurbit[7]uril.



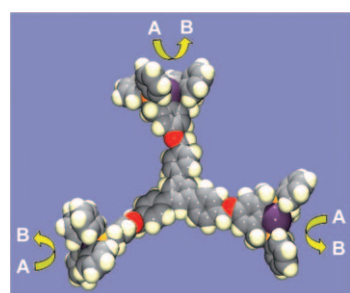
*Chem. Eur. J.*  
DOI: 10.1002/chem.200802744

## Styrene Derivatives

J. Lindh, J. Sävmärker, P. Nilsson, P. J. R. Sjöberg, M. Larhed\*

Synthesis of Styrenes by Palladium(II)-Catalyzed Vinylation of Arylboronic Acids and Aryltrifluoroborates by Using Vinyl Acetate

**One Heck of a reaction:** Treatment of arylboronic acids or aryltrifluoroborates with vinyl acetate by using a palladium(II) catalyst gives the corresponding styrenes (see scheme). No palladium reoxidant is needed and the vinylation is performed under non-inert conditions



*ChemSusChem*  
DOI: 10.1002/cssc.200800256

## Continuous Homogeneous Catalysis

N. J. Ronde, D. Totev, C. Müller, M. Lutz, A. L. Spek, D. Vogt\*

Molecular-Weight-Enlarged Multiple-Pincer Ligands: Synthesis and Application in Palladium-Catalyzed Allylic Substitution Reactions

**Bigger is better:** PCP pincer ligands are attached to soluble supports of different shapes. Disc-like structures lead to excellent retention by nanofiltration. High selectivity towards the linear *trans* products is obtained in palladium-catalyzed allylic alkylation and amination. The kinetics of an allylic amination reaction are studied and one of the molecular-weight-enlarged homogeneous catalysts is applied in a membrane reactor under continuous conditions.

