



On these pages, we feature a selection of the excellent work that has recently been published in our sister journals. If you are reading these pages on a

computer, click on any of the items to read the full article. Otherwise please see the DOIs for easy online access through Wiley Online Library.

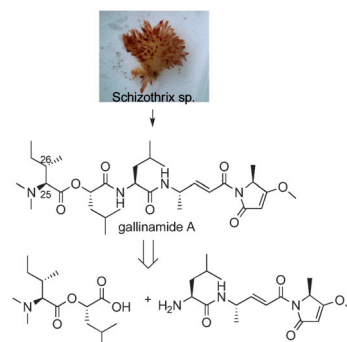


Total Synthesis

T. Conroy, J. T. Guo, R. G. Linington, N. H. Hunt, R. J. Payne*

Total Synthesis, Stereochemical Assignment, and Antimalarial Activity of Gallinamide A

Naturally active: The total synthesis of gallinamide A, a cyanobacterium-derived depsipeptide, is described. Four N-terminal diastereoisomers of gallinamide A were prepared by using two key fragments (see scheme). Spectroscopic comparison to the isolated natural product enabled the absolute configuration of the *N,N*-dimethylated isoleucyl residue to be determined as 25*S*, 26*S*. Gallinamide A (and its diastereoisomers) were also shown to possess potent antimalarial activity.



Chem. Eur. J.
DOI: 10.1002/chem.201102538

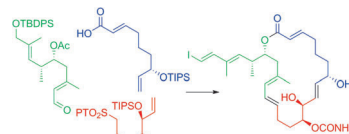


Total Synthesis

S. A. Pujari, P. Gowrisankar, K. P. Kaliappan*

A Shimizu Non-Aldol Approach to the Formal Total Synthesis of Palmerolide A

Total Recall: A convergent and efficient formal total synthesis of palmerolide A has been achieved. This synthetic approach involves a coupling of three fragments involving Julia–Kocienski, Yamaguchi esterification, and ring-closing metathesis (RCM) reactions as key steps.



Chem. Asian J.
DOI: 10.1002/asia.201100429

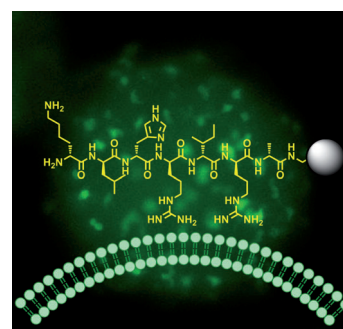


Cell Proliferation

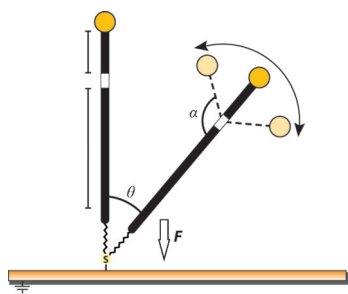
M. Meldal,* B. Wu, F. Diness, R. Michael, G. Hagel

Metabolically Stable Cellular Adhesion to Inert Surfaces

Novel adhesion peptides for the growth of cell monolayers on inert surfaces were identified by screening D-amino acid split-mix combinatorial libraries. Peptide adhesion was superior to that of poly D-lysine and allowed a monolayer of nonadhesive HEK293 cells to be established on the surface of PEG-based polymer beads for on-bead cellular screening.



ChemBioChem
DOI: 10.1002/cbic.201100382



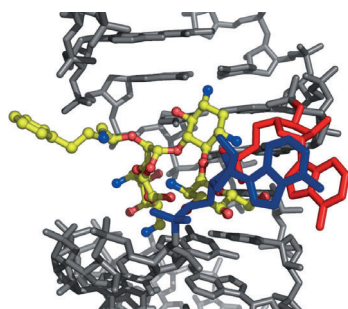
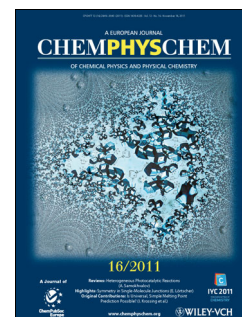
ChemPhysChem
DOI: 10.1002/cphc.201100578

Electron Transfer

N. Hüsken, M. Gębala, A. Battistel, F. La Mantia, W. Schuhmann,*
N. Metzler-Nolte*

Impact of Single Basepair Mismatches on Electron-Transfer Processes at Fc-PNA-DNA Modified Gold Surfaces

Mismatches in nucleic acids: A single-mismatch-induced enhancement of the bending elasticity of nucleic acid duplexes is derived from the electron-transfer kinetics at Fc-PNA-DNA modified gold surfaces.



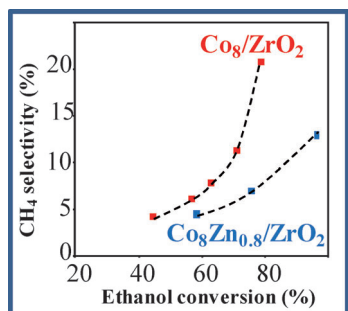
ChemMedChem
DOI: 10.1002/cmdc.201100346

Antibacterial Agents

J. Szychowski, J. Kondo, O. Zahr, K. Auclair, E. Westhof,
S. Hanessian,* J. W. Keillor*

Inhibition of Aminoglycoside-Deactivating Enzymes APH(3')-IIIa and AAC(6')-II by Amphiphilic Paromomycin O^{2'}-Ether Analogues

Paromomycin analogue activity: Novel amphiphilic aminoglycosides are shown to inhibit clinically relevant deactivating enzymes, without undergoing significant deactivation themselves.



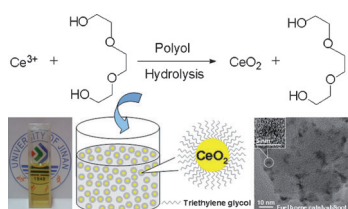
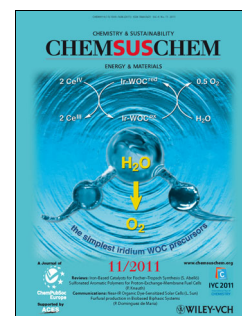
ChemSusChem
DOI: 10.1002/cssc.201100240

Ethanol Reforming

V. M. Lebarbier, A. M. Karim, M. H. Engelhard, Y. Wu, B.-Q. Xu,
E. J. Petersen, A. K. Datye, Y. Wang*

The Effect of Zinc Addition on the Oxidation State of Cobalt in Co/ZrO₂ Catalysts

State of oxidation leads the way: The effect of zinc addition to the catalyst 8Co/ZrO₂ is examined in the steam reforming of ethanol. Higher ethanol conversion and lower CH₄ selectivity are observed for the Co/ZrO₂ catalyst promoted with Zn.



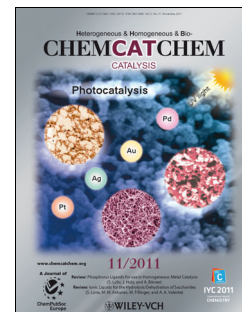
ChemCatChem
DOI: 10.1002/cctc.201100179

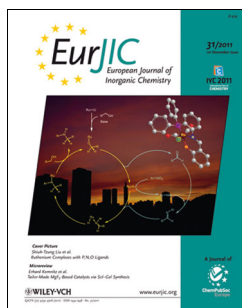
Quantum Dots

Y. Xin, X. Yang, P. Jiang, Z. Zhang,* Z. Wang, Y. Zhang*

Synthesis of CeO₂-Based Quantum Dots through a Polyol-Hydrolysis Method for Fuel-Borne Catalysts

Dots for diesel: Transparent colloidal solutions of (Fe doped) CeO₂ quantum dots (QDs) were prepared by heating a triethylene glycol solution of Ce(NO₃)₃·6H₂O (and Fe(NO₃)₃·9H₂O) at 180 °C. The QDs show improved activity for soot combustion compared with their nanometer counterparts. The high surface area and especially small particle size of QDs result in a large number of contact points between the catalyst and the soot.





Cooperative Catalysis

J. I. van der Vlugt*

Cooperative Catalysis with First-Row Late Transition Metals

A helping hand. This microreview describes recent developments and opportunities in the rapidly expanding field of bioinspired first-row late transition metal catalysis with cooperative ligand systems. Particular emphasis is placed on hemilabile, redox-noninnocent and adaptive ligand scaffolds and on particular bimetallic strategies.

Eur. J. Inorg. Chem.
DOI: 10.1002/ejic.201100752

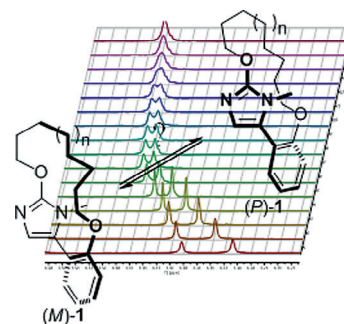


Planar Chirality

E. Van Den Berge, J. Pospíšil, T. Trieu-Van, L. Collard, R. Robiette*

Planar Chirality of Imidazole-Containing Macrocycles – Understanding and Tuning Atropisomerism

The synthesis and characterization of imidazole-containing macrocycles displaying planar chirality has been achieved. HPLC and NMR studies combined with computational calculations allowed us to understand the mechanism and the interactions involved in the conformational equilibrium between the two atropoisomers, which revealed the crucial role of the alicyclic chain length.



Eur. J. Org. Chem.
DOI: 10.1002/ejoc.201100805

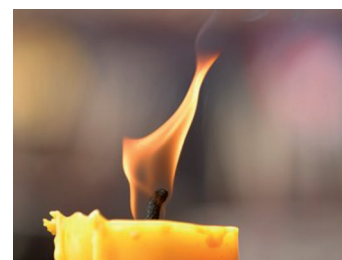


Chemistry of the Christmas Candle

Klaus Roth

Chemistry of the Christmas Candle

A burning candle seems far removed from the suspenseful world of chemistry, since it would appear to amount to nothing more than combustion of an organic compound. But the chemistry involved is not only especially beautiful, but also especially complex.



ChemViews magazine
DOI: 10.1002/chemv.201000133