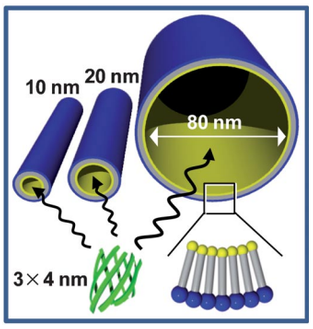
On these pages, we feature a selection of the excellent work that has recently been published in our sister journals. If you are reading these pages on a computer, click on any of the items to read the full article. Otherwise please see the DOIs for easy online access through Wiley InterScience.

Supramolecular Chemistry

N. Kameta,* H. Minamikawa, Y. Someya, H. Yui, M. Masuda, T. Shimizu*

Confinement Effect of Organic Nanotubes Toward Green Fluorescent Protein (GFP) Depending on the Inner Diameter Size

Inter-tubes: Diffusion constants and release rates of an encapsulated GFP in self-assembled organic nanotubes (see figure) decreased if the inner diameter of the nanochannels was decreased. Thermal and chemical stabilities of GFP in the nanochannels also strongly depended on the inner diameter size. The confinement effect allowed GFP to be stored stably at high temperatures and high denaturant concentrations.



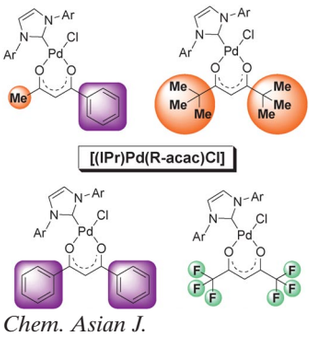
Chem. Eur. J.
DOI: **10.1002/chem.200903413**

Aryl Amination

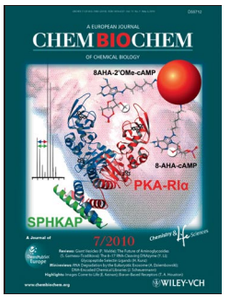
N. Marion, O. Navarro, E. D. Stevens, E. C. Ecarnot, A. Bell, D. Amoroso, S. P. Nolan*

Modified [(IPr)Pd(R-acac)Cl] Complexes: Influence of the acac Substitution on the Catalytic Activity in Aryl Amination

Pimp your acac: The synthesis of a series of [(IPr)Pd(R-acac)Cl] complexes, where the acac ligand on palladium has been systematically modified through terminal substitution, is reported. Investigation of their catalytic activity in cross-coupling is also presented through a comparative study in an aryl amination reaction.



Chem. Asian J.
DOI: **10.1002/asia.200900654**

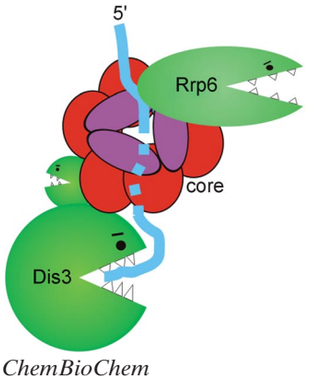


RNA

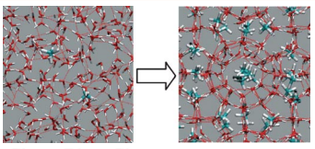
R. Tomecki, K. Drazkowska, A. Dziembowski*

Mechanisms of RNA Degradation by the Eukaryotic Exosome

RNA on its way to destruction: The exosome is a multi-subunit protein complex involved in essentially all phenomena associated with RNA metabolism in eukaryotic cells. This review discusses recent discoveries in the fields of biochemistry and structural biology that have shed new light on the mechanisms of RNA recruitment to the catalytic subunits of the exosome.



ChemBioChem
DOI: **10.1002/cbic.201000025**



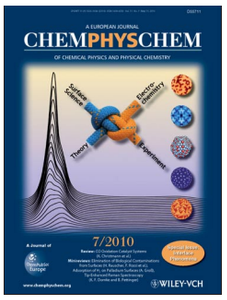
ChemPhysChem
DOI: **10.1002/cphc.201000024**

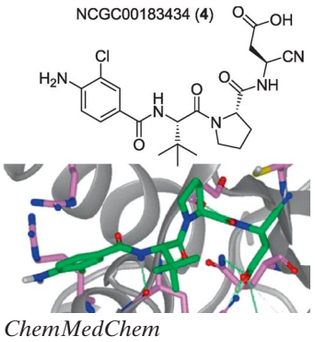
Molecular Dynamics

J. A. Ripmeester,* S. Alavi

Molecular Simulations of Methane Hydrate Nucleation

Microsecond molecular dynamics simulations of methane hydrate formation shows that hydrate cage formation occurs after a collective clustering of methane molecules. The water molecules in the vicinity of the methane cluster rearrange and form dodecahedral hydrate cages. Agglomeration and annealing of the cages leads to the formation of the bulk hydrate phase (see picture).





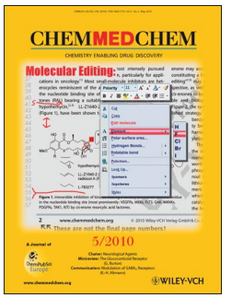
ChemMedChem
DOI: **10.1002/cmdc.200900531**

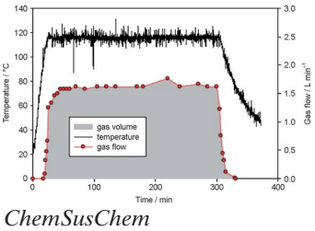
Drug Design

M. B. Boxer, A. M. Quinn, M. Shen, A. Jadhav, W. Leister, A. Simeonov, D. S. Auld, C. J. Thomas*

A Highly Potent and Selective Caspase 1 Inhibitor that Utilizes a Key 3-Cyanopropanoic Acid Moiety

Caspase the friendly target! The role of a nitrile electrophile as a mediator of the covalent interaction between an optimized caspase 1 inhibitor scaffold [NCGC00183434 (**4**)] is examined. Synthesis, SAR, hydrolytic stability, selected ADME properties and docking models are reported.





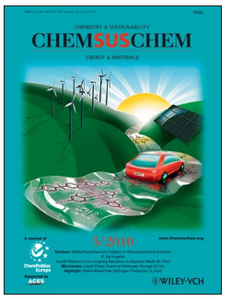
ChemSusChem
DOI: **10.1002/cssc.201000017**

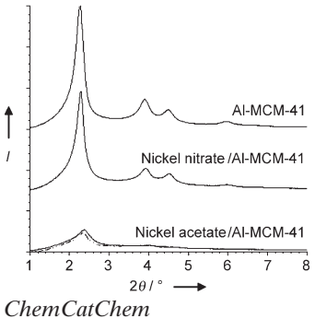
Hydrogen Generation

A. Majewski, D. J. Morris, K. Kendall,* M. Wills*

A Continuous-Flow Method for the Generation of Hydrogen from Formic Acid

A continuous-flow method for generation of hydrogen from the ruthenium-catalyzed decomposition of formic acid in the presence of a base is described. The rate of addition of formic acid to the reactor is controlled by a temperature feedback mechanism or by an impedance-based feedback system.





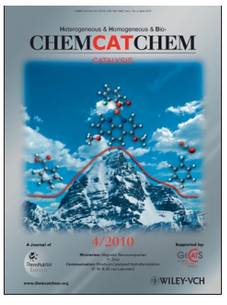
ChemCatChem
DOI: **10.1002/cctc.200900289**

Supported Catalysts

E. Marceau,* M. Che, J. Čejka, A. Zukal

Nickel(II) Nitrate vs. Acetate: Influence of the Precursor on the Structure and Reducibility of Ni/MCM-41 and Ni/Al-MCM-41 Catalysts

Pickled anions: Nickel(II) nitrate is the precursor most often used in the preparation of Ni/SiO_2 catalysts However, when nickel(II) acetate is used as a precursor for supported catalysts, the anion plays multiple roles, from tuning the cation–support interactions by setting the pH close to neutrality, to abstracting Al^{3+} ions from the support and potentially disrupting the support structure.



Photoactivable Metal Complexes

U. Schatzschneider*

Photoactivated Biological Activity of Transition-Metal Complexes

Precise control of the biological activity of transition-metal complexes can be achieved by photoactivation of compounds otherwise stable under physiological conditions in the absence of light. Potential applications include fundamental studies on the behavior of biological systems, as well as novel photochemotherapeutic approaches.

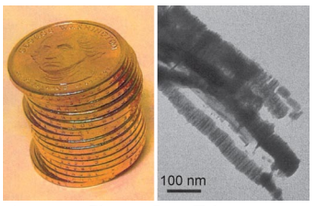
Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.201000003**

Nanostructures

A. Yella, E. Mugnaioli, M. Panthöfer, U. Kolb, W. Tremel*

Mismatch Strain versus Dangling Bonds: Formation of "Coin-Roll Nanowires" by Stacking Nanosheets

The third dimension comes to the rescue in the synthesis of laterally confined 2D crystals. Graphene-type sheets of layered metal(IV) chalcogenides are stabilized by stacking to form nano-objects that resemble a coin roll. Mismatch strain between NbS_2 and WS_2 lattices is important for the stabilization of the coin-roll structure as well as for preventing the formation of the intrinsically more stable scroll structures such as fullerenes or nanotubes.



Angew. Chem. Int. Ed.
DOI: **10.1002/anie.200905542**

