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die Artikel mit einem Klick direkt aufrufen, ansonsten sind sie durch Eingabe der DOIs über Wiley Online Library leicht online zugänglich.

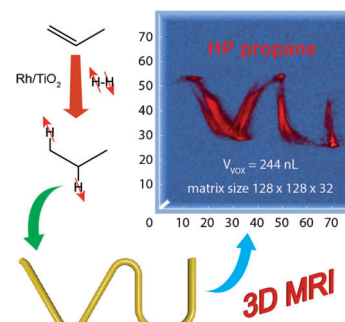


Magnetic Resonance Imaging

K. V. Kovtunov,* D. A. Barskiy, A. M. Coffey, M. L. Truong, O. G. Salnikov, A. K. Khudorozhkov, E. A. Inozemtseva, I. P. Prosvirin, V. I. Bukhtiyarov, K. W. Waddell, E. Y. Chekmenev,* I. V. Koptug

High-Resolution 3D Proton MRI of Hyperpolarized Gas Enabled by Parahydrogen and Rh/TiO₂ Heterogeneous Catalyst

What a gas! 3D magnetic resonance imaging (MRI) of a hyperpolarized (HP) gas with submillimeter spatial resolution using parahydrogen-induced polarization (PHIP) and a Rh/TiO₂ catalyst is demonstrated.



Chem. Eur. J.
DOI: 10.1002/chem.201403604

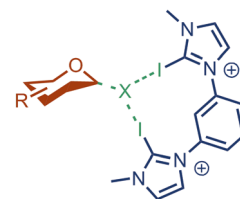


Glycosylation

R. Castelli, S. Schindler, S. M. Walter, F. Kniep, H. S. Overkleeft, G. A. Van der Marel, S. M. Huber,* J. D. C. Codée*

Activation of Glycosyl Halides by Halogen Bonding

Can we please find a donor? Glycosyl halides could be activated for the first time by means of genuine halogen-bonding interactions. Using various glycopyranosyl halides, we have mapped the reactivity profile of a bidentate iodoimidazolium halogen-bond donor in glycosylation reactions.



Chem. Asian J.
DOI: 10.1002/asia.201402259

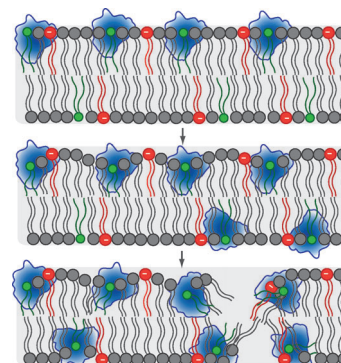


Cyclic Peptides

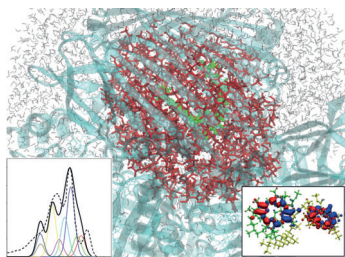
S. Troeira Henriques,* Y.-H. Huang, S. Chaousis, C. K. Wang, D. J. Craik

Anticancer and Toxic Properties of Cyclotides are Dependent on Phosphatidylethanolamine Phospholipid Targeting

The circle of death: Cyclotides kill cancer cells by targeting phosphatidylethanolamine phospholipids in the cell membrane, followed by insertion and membrane disruption. Cyclotides are shown to be toxic against cancer and non-cancer cells and that the toxicity correlates with the ability to target and disrupt the lipid bilayer.



ChemBioChem
DOI: 10.1002/cbic.201402144



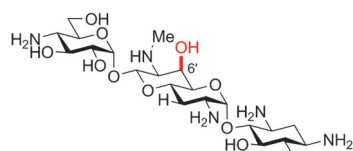
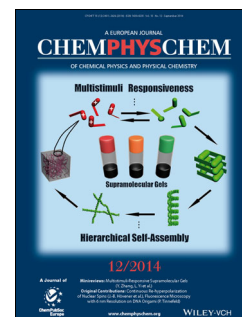
ChemPhysChem
DOI: 10.1002/cphc.201402244

(TD)DFT/MM Simulation

S. Jurinovich, C. Curutchet, B. Mennucci*

The Fenna–Matthews–Olson Protein Revisited: A Fully Polarizable (TD)DFT/MM Description

Teaching an old protein new tricks: A critical investigation into the role of both structural and electrostatic effects of the environment in determining the excitonic states of the Fenna–Matthews–Olson protein is carried out by using a polarizable quantum mechanics/molecular mechanics model (see figure).



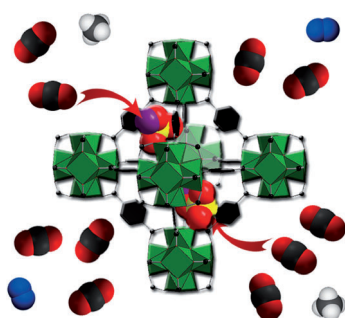
ChemMedChem
DOI: 10.1002/cmdc.201402146

Antibiotics

A. R. Mandhapati, D. Shcherbakov, S. Duscha, A. Vasella,*
E. C. Böttger,* D. Crich*

Importance of the 6'-Hydroxy Group and Its Configuration for Apramycin Activity

Inversion of configuration of the 6'-OH group of apramycin moderates the antiribosomal and antibacterial activities of this aminoglycoside antibiotic. Deletion of the 6'-OH group diminishes all activity substantially, and its replacement by an amino group is detrimental to activity. These results are consistent with apramycin adopting the standard binding mode of the 4,5- and 4,6-aminoglycosides in the decoding A-site of the bacterial ribosome as opposed to the alternative binding mode proposed in some studies.



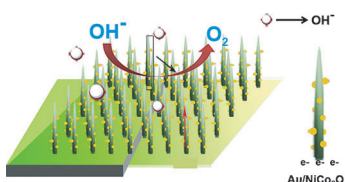
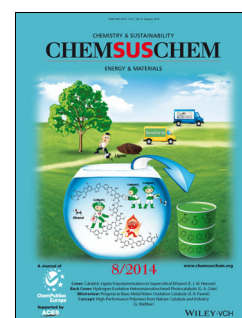
ChemSusChem
DOI: 10.1002/cssc.201402378

Metal–Organic Frameworks

Z. Hu, K. Zhang, M. Zhang, Z. Guo, J. Jiang, D. Zhao*

A Combinatorial Approach towards Water-Stable Metal–Organic Frameworks for Highly Efficient Carbon Dioxide Separation

With our powers combined: A library of 20 UiO-66-derived metal–organic frameworks (MOFs) is synthesized following a combinatorial approach involving mixed ligand copolymerization and two post-synthetic modifications in tandem. The MOFs have excellent water stabilities in a pH range of 1 to 12 together with high carbon dioxide (CO₂) uptake capacities and selectivities. These features make them promising adsorbents in adsorption-based CO₂ separations such as post-combustion CO₂ capture and upgrading natural gas.



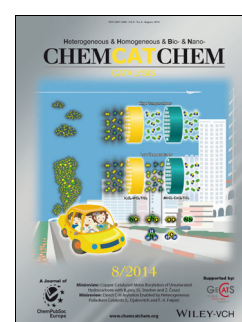
ChemCatChem
DOI: 10.1002/cctc.201402217

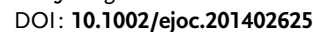
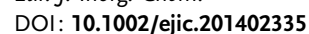
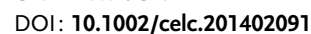
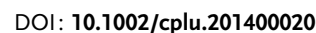
Water Oxidation

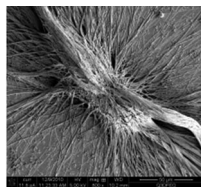
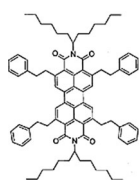
X. Liu, J. Liu,* Y. Li, Y. Li, X. Sun*

Au/NiCo₂O₄ Arrays with High Activity for Water Oxidation

The man with the golden array: Electrodes made from a novel Au/NiCo₂O₄ hybrid array exhibit high catalytic activity for the oxygen evolution reaction and outperform commercial Ir/C. The enhanced performance can be attributed to the optimized chemical environment of the Co ions and the construction of well-aligned nanoarrays.







Organic Dyes

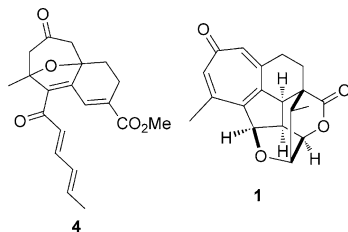
D. Dasgupta, A. M. Kendhale, M. G. Debije, J. ter Schiphorst, I. K. Shishmanova, G. Portale, A. P. H. J. Schenning*

Effect of the *Ortho* Alkylation of Perylene Bisimides on the Alignment and Self-Assembly Properties

Big effect with small alteration! Styrylation of a perylene bisimide significantly alters the alignment in a liquid crystalline host and the self-assembly in solution. It was found that the dichroic properties of perylene bisimides in a liquid crystal host can be reversed with a single synthetic step by *ortho* alkylation.

ChemistryOpen

DOI: 10.1002/open.201402011



Asian J. Org. Chem.

DOI: 10.1002/ajoc.201402116

Total Synthesis

Z. Ma, B. Cheng, H. Zhai*

Synthetic Studies Toward Harringtonolide

It's got potential: An efficient synthesis of the oxo-bridged 7/6-bicyclic precursor **4** that is potentially useful for the construction of harringtonolide (**1**) has been realized through a [4+3] cycloaddition reaction as the key transformation.



ChemViews magazine

DOI: 10.1002/chemv.201400057

Mass Spectrometry

V. Köster, G. Giorgi

Importance of Mass Spectrometry for Newborn Screening

Tandem Mass Spectrometry is a valuable method to detect metabolites which can indicate a wide range of metabolic disorders in newborns. Professor Giancarlo la Marca of the University of Florence, Italy, spoke to ChemViews Magazine about the history of newborn screening programs and current progress in developing new and improved tests.

