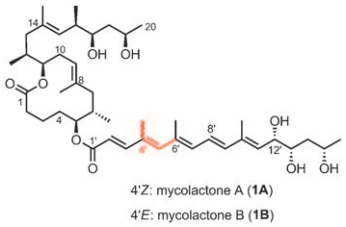
Auf diesen drei Seiten weisen wir auf wichtige aktuelle Beiträge in unseren Schwesterzeitschriften hin. Wenn Sie die Seiten online lesen, dann können Sie die Artikel mit einem Klick direkt aufrufen, ansonsten sind sie durch Eingabe der DOIs über Wiley Online Library leicht online zugänglich.

Natural Products

G. Wang, N. Yin, E.-i. Negishi*

Highly Stereoselective Total Synthesis of Fully Hydroxy-Protected Mycolactones A and B and Their Stereoisomerization upon Deprotection

Heavy reliance: Highly efficient and stereoselective syntheses of fully hydroxy-protected mycolactones A and B with ≥98% isomeric purity were reported for the first time with heavy reliance on Pd-catalyzed alkenylation (Negishi version), Zr-catalyzed alkyne methylalumination, and Brown allylboration. However, their stepwise deprotection led to stereoisomerization at C4′ to give 4:3–5:4 mixtures of mycolactones A and B.



Chem. Eur. J.
DOI: **10.1002/chem.201002627**

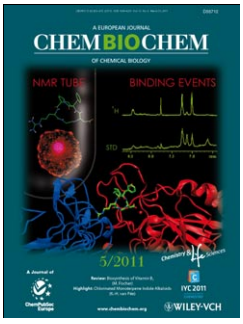
Carbon Nanotubes

E. J. E. Stuart, M. Pumera*

Hydroquinone Electrochemistry on Carbon Nanotubes is Accelerated by Nanographite Impurities

YouTubes: Hydroquinone plays a key role in a number of chemical and biological processes. Nanographite impurities that are present within carbon nanotubes are responsible for the "electrocatalytic" oxidation of this biologically important compound. Hydroquinone is also part of skin whiteners, used in Asian countries (see picture).

Chem. Asian J.
DOI: **10.1002/asia.201000815**

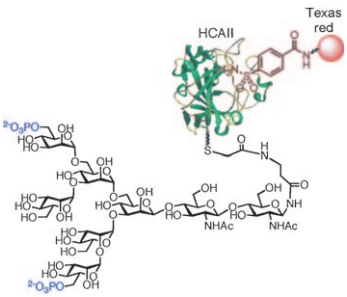


N-Glycans

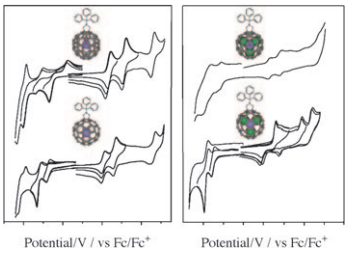
Y. Liu, Y. M. Chan, J. Wu, C. Chen, A. Benesi, J. Hu, Y. Wang, G. Chen*

Chemical Synthesis of a Bisphosphorylated Mannose-6-Phosphate N-Glycan and its Facile Monoconjugation with Human Carbonic Anhydrase II for in vivo Fluorescence Imaging

Red-ily made: The first chemical synthesis of a fully elaborated bisphosphorylated triantennary M6P N-glycan was achieved through a highly efficient late-stage phosphorylation strategy. A human carbonic anhydrase II-based fluorescently tagged neoglycoprotein platform was successfully constructed in order to evaluate the M6P N-glycan-directed protein internalization process in cell-based assays by confocal fluorescence imaging.



ChemBioChem
DOI: **10.1002/cbic.201000785**



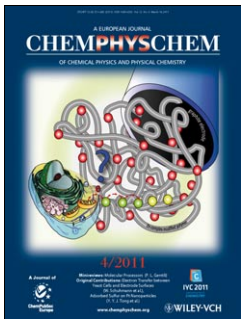
ChemPhysChem
DOI: **10.1002/cphc.201001015**

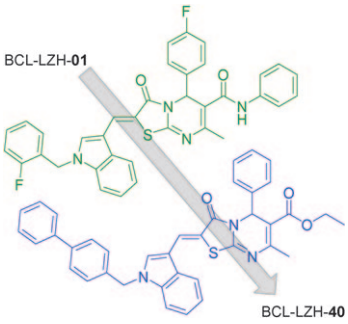
Fullerenes

N. Chen, J. R. Pinzón, L. Echegoyen*

Influence of the Encapsulated Clusters on the Electrochemical Behaviour of Endohedral Fullerene Derivatives: Comparative Study of *N*-Tritylpyrrolidino Derivatives of $Sc_3N@I_h$-C_{80} and $Lu_3N@I_h$-C_{80}

Clutching the ball: A comparative electrochemical study of the *N*-trityl-pyrrolidino derivatives of $Sc_3N@I_h$-C_{80} (picture, left) and $Lu_3N@I_h$-C_{80} (picture, right) shows a significant influence of the encapsulated clusters on the physical and electrochemical properties of endohedral fullerene derivatives.





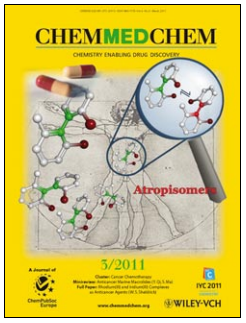
ChemMedChem
DOI: **10.1002/cmdc.201000484**

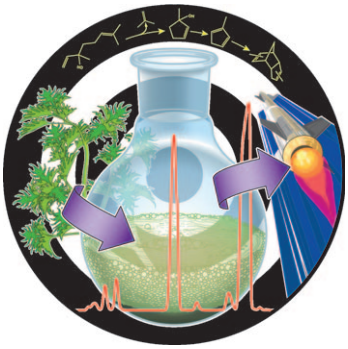
Protein–protein interactions

B. Zhou, X. Li, Y. Li, Y. Xu, Z. Zhang, M. Zhou, X. Zhang, Z. Liu, J. Zhou, C. Cao, B. Yu,* R. Wang*

Discovery and Development of Thiazolo[3,2-*a*]pyrimidinone Derivatives as General Inhibitors of Bcl-2 Family Proteins

Keeping it in the family! Compounds with a common thiazolo[3,2-*a*]pyrimidinone motif have been developed as general inhibitors of Bcl-2 family proteins. The lead compound BCL-LZH-**01** (shown in green) was identified as a Bcl-x_L protein binder in a random screening using a fluorescence polarization-based binding assay, and further confirmed by ^{15}N-HSQC NMR experiments. Of the 42 derivative described, BCL-LZH-**40** (shown in blue) is the most potent, inhibiting the binding of BH3 peptides to Bcl-x_L, Bcl-2, and Mcl-1 with inhibition constants (K_i) of 17, 534, and 200 nM, respectively.





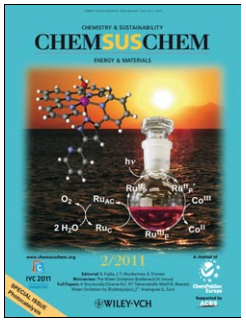
ChemSusChem
DOI: **10.1002/cssc.201100017**

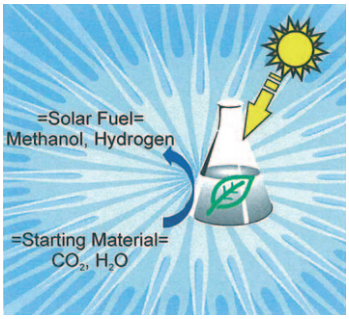
Biofuels

H. A. Meylemans, R. L. Quintana, B. R. Goldsmith, B. G. Harvey*

Solvent-Free Conversion of Linalool to Methylcyclopentadiene Dimers: A Route To Renewable High-Density Fuels

Neat biofuel in HD: Linalool, a linear terpene alcohol, can be selectively converted by ruthenium metathesis catalysts under solvent-free conditions to 1-methyl-cyclopent-2-enol and isobutylene in quantitative yield. Dehydration of the alcohol under mild conditions followed by low-temperature thermal dimerization yields methylcyclopentadiene dimer, which can be readily converted into a high-density fuel.





ChemCatChem
DOI: **10.1002/cctc.201000293**

Artificial Photosynthesis

Y. Amao*

Solar Fuel Production Based on the Artificial Photosynthesis System

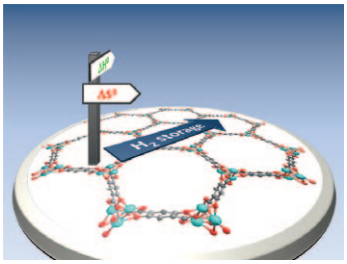
My kingdom for a catalyst: Artificial photosynthesis systems consisting of an electron donor, a photosensitizer, an electron carrier, and a catalyst for hydrogen production or CO_2 reduction for solar low carbon fuels, such as hydrogen gas, CO, formic acid, and methanol production are introduced.

Hydrogen Storage in Porous Solids

G. T. Palomino, C. P. Cabello, C. O. Areán*

Enthalpy–Entropy Correlation for Hydrogen Adsorption on MOFs: Variable-Temperature FTIR Study of Hydrogen Adsorption on MIL-100(Cr) and MIL-101(Cr)

Variable-temperature infrared (VTIR) spectroscopy reveals an enthalpy–entropy correlation for hydrogen adsorption, which should facilitate intelligent design of MOFs and other porous hydrogen storage materials.



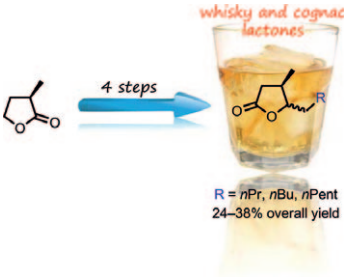
Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.201001116**

Olfactory Lactones

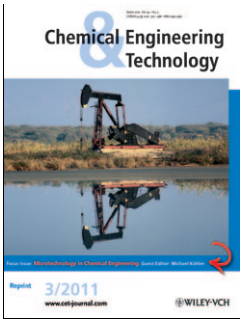
L. A. Adrio, K. K. Hii*

An Expedient Synthesis of Olfactory Lactones by Intramolecular Hydroacylalkoxylation Reactions

A straight-forward synthesis of olfatory lactones by using Cu-catalyzed hydroacylalkoxylation as the key step is presented.



Eur. J. Org. Chem.
DOI: **10.1002/ejoc.201001556**

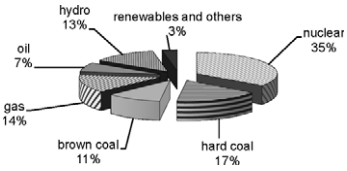


CO_2 Capture for Fossil Fuel-Fired Power Plants

R. J. Notz*, I. Tönnies, N. McCann, G. Scheffknecht, H. Hasse

CO_2 Capture for Fossil Fuel-Fired Power Plants

In an overview of technologies for fossil fuel-fired power plants with drastically reduced CO_2 emissions the three main technologies post-combustion capture, pre-combustion capture, and oxyfuel technology are presented and compared. Post-combustion capture using reactive absorption is discussed in detail due to its potential for application on a large scale in the near future.



Chem. Eng. Technol.
DOI: **10.1002/ceat.201000491**