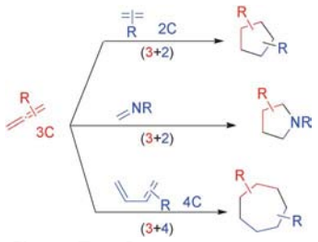
On these pages, we feature a selection of the excellent work that has recently been published in our sister journals. If you are reading these pages on a computer, click on any of the items to read the full article. Otherwise please see the DOIs for easy online access through Wiley Online Library.

Cycloaddition

F. López,* J. L. Mascareñas*

Allenes as Three-Carbon Units in Catalytic Cycloadditions: New Opportunities with Transition-Metal Catalysts

Three of a kind: The use of allenes as 3C-atom components in catalytic cycloadditions is being increasingly demonstrated. In this concept, an overview of the existing methods is presented with an emphasis on those more recent contributions involving the use of Pt^{II} and Au^{I} catalysts.



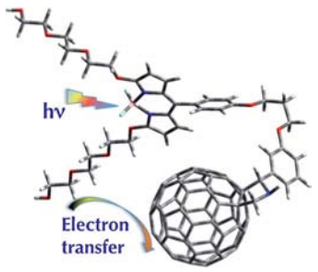
Chem. Eur. J.
DOI: **10.1002/chem.201002366**

Electron Transfer

J.-Y. Liu, M. E. El-Khouly, S. Fukuzumi,* D. K. P. Ng*

Photoinduced Electron Transfer in a Distyryl BODIPY–Fullerene Dyad

Charge separation: A novel distyryl BODIPY–fullerene dyad has been prepared (see figure) which, upon excitation at the distyryl BODIPY moiety, undergoes a facile photoinduced electron transfer to give a relatively long-lived charge-separated state.



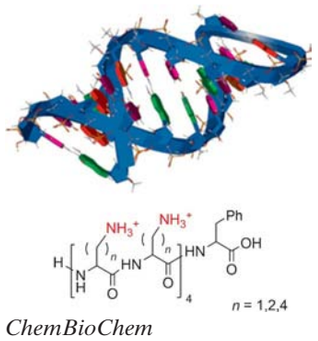
Chem. Asian J.
DOI: **10.1002/asia.201000537**

Oligonucleotides

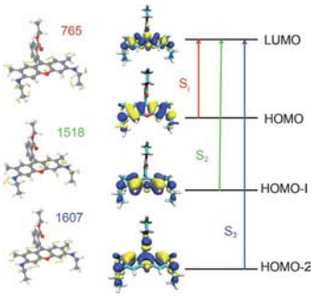
M. Murtola, S. Zaramella, E. Yeheskiely, R. Strömberg*

Cationic Peptides that Increase the Thermal Stabilities of 2′-*O*-MeRNA/RNA Duplexes but Do Not Affect DNA/DNA Melting

Helix discrimination: If a double-stranded oligonucleotide complex in solution encounters a peptide carrying multiple opposite charges, it appears far from obvious that this will necessarily have a positive effect upon the thermal stability of the complex. Fascinatingly, though, these relatively flexible short peptides discriminate between affecting DNA/DNA B-type helices and 2′-*O*-MeRNA/RNA A-type duplexes.



ChemBioChem
DOI: **10.1002/cbic.201000324**



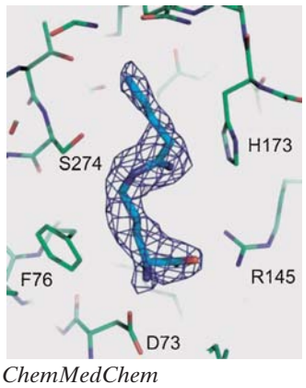
ChemPhysChem
DOI: **10.1002/cphc.201000868**

Hyper-Raman Scattering

C. B. Milojevich, D. W. Silverstein, L. Jensen,* J. P. Camden*

Probing One-Photon Inaccessible Electronic States with High Sensitivity: Wavelength Scanned Surface Enhanced Hyper-Raman Scattering

How exciting! A combined experimental and theoretical study of the surface-enhanced hyper-Raman scattering (SEHRS) provides a detailed picture of the electronic excited state of the benchmark Rhodamine 6G molecule (see picture). These results demonstrates the ability of SEHRS to explore excited states that are not easily accessible via one-photon excitation using nonlinear spectroscopy at very low (10^{-10} M) concentrations.



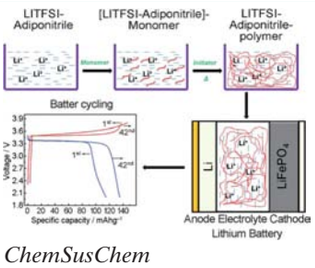
ChemMedChem
DOI: **10.1002/cmdc.201000392**

Activity Probes

M. Lluis, Y. Wang, A. F. Monzingo, W. Fast,* J. D. Robertus*

Characterization of *C*-Alkyl Amidines as Bioavailable Covalent Reversible Inhibitors of Human DDAH-1

Inhibition, interrupted: A series of dual-targeted DDAH-1/NO synthase inhibitors were ranked for potency within cells, and the most potent compound was characterized in detail. X-ray crystallography and isothermal titration calorimetry were used to compare binding to wild-type and mutant DDAH-1 to dissect the contribution of reversible covalent bond formation to the potency of these *C*-alkyl amidine inhibitors.



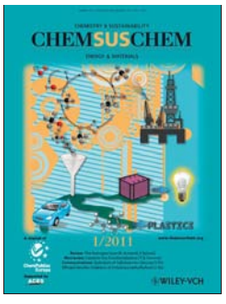
ChemSusChem
DOI: **10.1002/cssc.201000249**

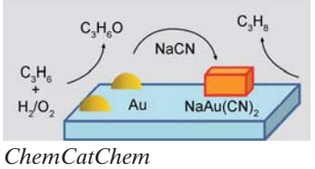
Lithium-Ion Batteries

M. Patel, M. U. M. Patel, A. J. Bhattacharyya*

A Cross-Linked Soft Matter Polymer Electrolyte for Rechargeable Lithium-Ion Batteries

Ion man: A soft matter cross-linked polymer electrolyte with superior mechanical, thermal, and electrochemical properties is synthesized by using a new methodology for application in lithium-ion batteries.





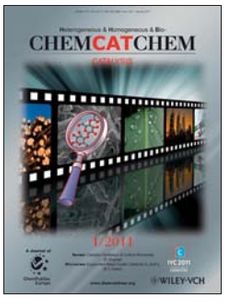
ChemCatChem
DOI: **10.1002/cctc.201000218**

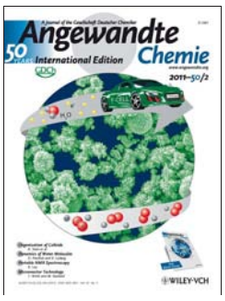
Gold Analysis

S. T. Oyama,* J. Gaudet, W. Zhang, D. S. Su, K. K. Bando

Platinum-Like Catalytic Behavior of Au^+

All that glitters isn't necessarily platinum: Treatment of supported gold nanoparticles with cyanide solutions does not dissolve the metal, but instead causes reprecipitation of gold(I) cyanide. The selectivity of the resulting catalyst in the reaction of propylene with H_2/O_2 mixtures changes dramatically from propylene oxide to propane, a product typical of platinum.



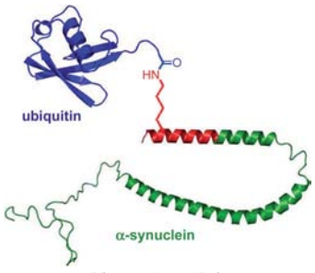


Protein Ubiquitination

M. Hejjaoui, M. Haj-Yahya, K. S. A. Kumar, A. Brik,*
H. A. Lashuel*

Towards Elucidation of the Role of Ubiquitination in the Pathogenesis of Parkinson's Disease with Semisynthetic Ubiquitinated α-Synuclein

Ubiquitinate me here: The semisynthesis and characterization of a site-specifically monoubiquitinated form of α-synuclein (see picture) enabled investigation of the effect of ubiquitination on membrane binding, oligomerization, and fibrillogenesis. The introduction of specific ubiquitin modifications into α-synuclein will shed light on the role of ubiquitination in regulating the function(s) of α-synuclein in health and disease.



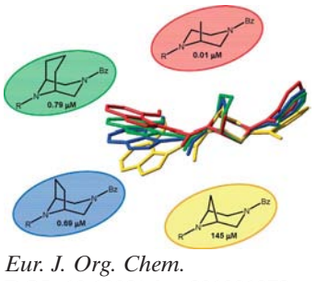
Angew. Chem. Int. Ed.
DOI: **10.1002/anie.201005546**

Diazabicyclo Analogs of HIV Inhibitor

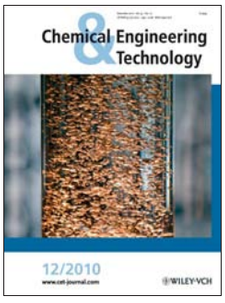
L. Legnani, D. Colombo, E. Cocchi, L. Solano, S. Villa,
L. Lopalco, V. Asti, L. Diomede, F. Marinone Albini, L. Toma*

Modeling and Spectroscopic Studies of Synthetic Diazabicyclo Analogs of the HIV-1 Inhibitor BMS-378806 and Evaluation of Their Antiviral Activity

A viral neutralization assay on a panel of six HIV-related pseudoviruses allowed the determination of the antiviral activity of three diazabicyclo analogs of BMS-378806, in which the axial methyl group on its piperazine ring is replaced by a carbon bridge. The diazabicyclooctane and -nonane derivatives show a significant infectivity reduction power that is related to their conformational preference.



Eur. J. Org. Chem.
DOI: **10.1002/ejoc.201001073**

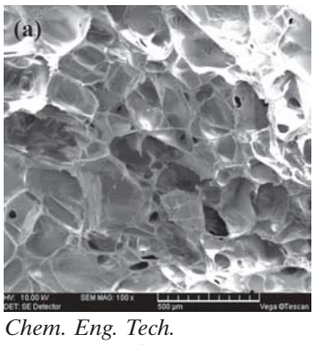


Drug Delivery

D. Huo, J. Yang, C. Hou*, M. Yang

Macroporous Poly(*N*-isopropylamide-co-acrylamide) Hydrogels Prepared by Two-Step Polymerization for Drug Delivery Applications

Macroporous poly(*N*-isopropylamide-co-acrylamide) hydrogels with a very fast thermoresponsive rate were successfully prepared by a two-step polymerization method. This rate and the mechanical strength of the hydrogels drastically changed by freezing the reaction mixture after 3 min of the first polymerization. The two-step polymerization proved to be a promising method for biomacromolecular drugs.



Chem. Eng. Tech.
DOI: **10.1002/ceat.201000129**

