

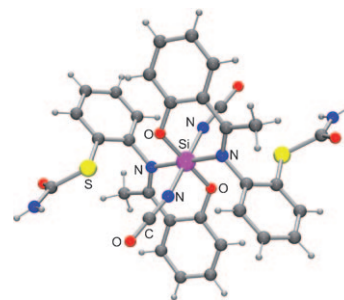


Hexacoordinate Silicon

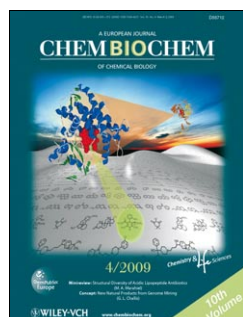
S. Metz, C. Burschka, R. Tacke*

Synthesis and Structural Characterization of Neutral Hexacoordinate Silicon(IV) Complexes with SiO_2N_4 Skeletons

Surrounded by six: A series of novel neutral hexacoordinate silicon(IV) complexes with SiO_2N_4 skeletons, containing two bidentate mono-anionic O,N ligands and two monoanionic NCX (X = O, S) ligands, was synthesized. The formation of the title compounds involved some unexpected transformations of the bidentate O,N ligands.



Chem. Asian J.
DOI: 10.1002/asia.200800405



Fluorogenic Substrates

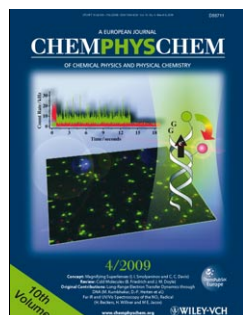
C. Bedia, L. Camacho, J. Casas, J. L. Abad, A. Delgado, P. P. Van Veldhoven, G. Fabriàs*

Synthesis of a Fluorogenic Analogue of Sphingosine-1-Phosphate and Its Use to Determine Sphingosine-1-Phosphate Lyase Activity

Illuminating an ER enzyme: We report on the design and synthesis of a fluorogenic chemical sensor (**1**) to measure sphingosine-1-phosphate lyase activity in high-throughput screening formats, as well as its validation using lyase knockout (*Sgpl1*^{−/−}) cells.



ChemBioChem
DOI: 10.1002/cbic.200800809

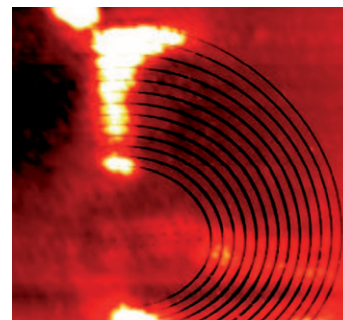


Metamaterials

I. I. Smolyaninov, C. C. Davis*

Magnifying Superlenses and other Applications of Plasmonic Metamaterials in Microscopy and Sensing

Every last detail: New advances in the construction of metamaterials enable the creation of artificial optical media, whose use in microscopy can provide resolution that is not determined by the conventional diffraction limit. The picture shows a superposition of an AFM image of a plasmonic metamaterial onto the corresponding optical image obtained using a conventional optical microscope.



ChemPhysChem
DOI: 10.1002/cphc.200800757

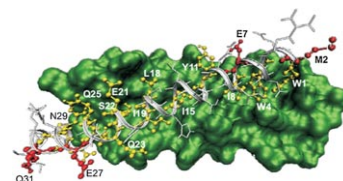


Antiviral Agents

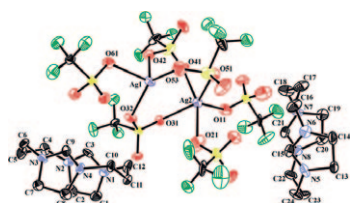
F. Gaston, G. C. Granados, S. Madurga, F. Rabanal, F. Lakhdar-Ghazal, E. Giralt, E. Bahraoui*

Development and Characterization of Peptidic Fusion Inhibitors Derived from HIV-1 gp41 with Partial D-Amino Acid Substitutions

Interactions between C34 and N36: Synthetic peptides with D-amino acid substitutions that mimic the human immunodeficiency virus (HIV) gp41 HR2 region may lead to new peptidic anti-HIV-1 drugs that retain potent antiviral activity while being more resistant to proteolytic degradation.



ChemMedChem
DOI: 10.1002/cmdc.200800390



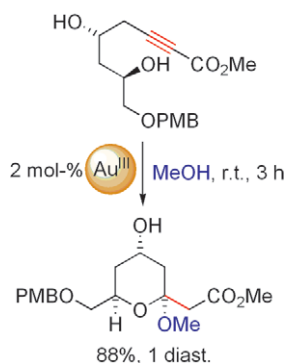
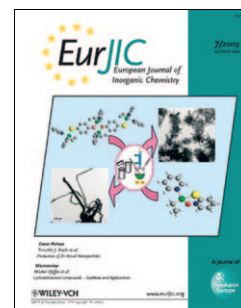
Eur. J. Inorg. Chem.
DOI: 10.1002/ejic.200801113

Super-Electron-Rich Olefins

M. F. Lappert,* S. Álvarez, G. Aullón, R. Fandos, A. Otero, A. Rodríguez, S. Rojas, P. Terreros*

Reactivity of a Super-Electron-Rich Olefin Derived from Cyclam

A series of new compounds, such as a *syn*-bis(urea), an *anti*-bis-(thiourea), a bis(imidazolium) triflate and a monoprotonated imidazolium tetraphenylborate, has been synthesised from an electron-rich olefin derived from cyclam. Upon treatment with silver oxide, the bis(imidazolium) triflate affords the di- and monoprotonated cationic salts, depending upon the nature of the solvent.



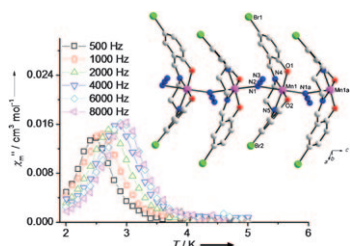
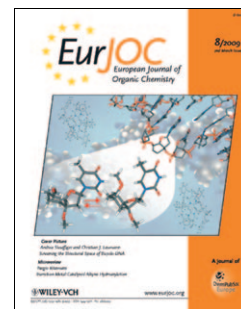
Eur. J. Org. Chem.
DOI: 10.1002/ejoc.200801221

Ring Formation

A. Diéguez-Vázquez,* C. C. Tzschucke, J. Crecente-Campo, S. McGrath, S. V. Ley

AuCl₃-Catalyzed Hydroalkoxylation of Conjugated Alkynoates: Synthesis of Five- and Six-Membered Cyclic Acetals

The Au^{III}-catalyzed double hydroalkoxylation of conjugated alkynoates allows rapid access to pyran and furan acetals, which are prevalent structures in numerous polyketide natural products. The mild reaction conditions together with the low toxicity of the catalyst and the high efficiency of the process makes this method promising for extensive applications in organic synthesis.



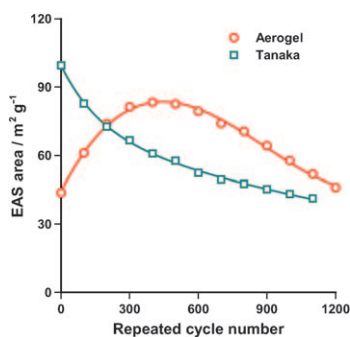
Chem. Eur. J.
DOI: 10.1002/chem.200900250

Magnetic Properties

J. H. Yoon, D. W. Ryu, H. C. Kim, S. W. Yoon, B. J. Suh, C. S. Hong*

An End-On Azide-Bridged Antiferromagnetic Single-Chain Magnet Involving Spin Canting and Field-Induced Two-Step Magnetic Transitions

Two-step magnetic transitions: An azide-bridged 1D Mn^{III} coordination polymer with a unique single end-on mode was prepared, which displayed atypical antiferromagnetic couplings and field-induced two-step magnetic transitions. The spin-canted phenomenon in the antiferromagnetic chain complex plays a pivotal role in establishing the slow magnetic relaxation.



ChemSusChem
DOI: 10.1002/cssc.200800224

Fuel Cell Catalysts

H. J. Kim, H.-S. Park, D. J. Suh*

The Stability of Platinum–Carbon Aerogel Catalysts upon Repeated Potential Cycles

A sense of stability: The stability of carbon-supported platinum catalysts at high potentials is important for the commercialization of fuel cells for homes and cars. The electrochemical active surface (EAS) area of a Pt–C aerogel catalyst was found to increase up to 500 cycles, in contrast to that for the so-called Tanaka catalyst which decreases with the number of repeated potential cycles.

