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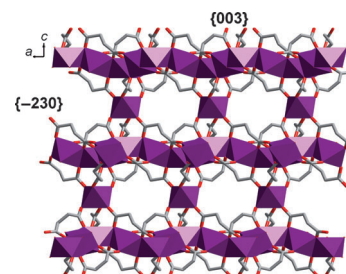


Metal–Organic Frameworks

W. Li, P. T. Barton, M. S. R. N. Kiran, R. P. Burwood, U. Ramamurty, A. K. Cheetham*

Magnetic and Mechanical Anisotropy in a Manganese 2-Methylsuccinate Framework Structure

Magnetic and mechanical anisotropy: A 3D manganese 2-methylsuccinate framework was constructed by alternating manganese oxide layers and isolated MnO_6 octahedra, pillared via *syn*, *anti-syn* carboxylates (see figure). Single-crystal studies reveal that it exhibits highly anisotropic homospin ferrimagnetism, elastic moduli, and hardness along different single-crystal directions.



Chem. Eur. J.
DOI: 10.1002/chem.201101251

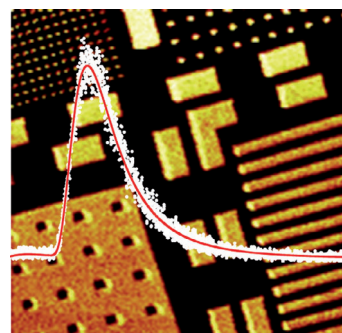


Desorption Dynamics

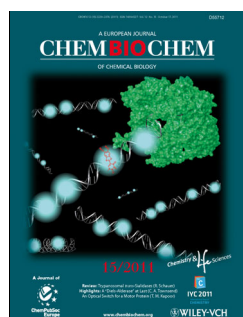
O. Kostko, L. K. Takahashi, M. Ahmed*

Desorption Dynamics, Internal Energies, and Imaging of Organic Molecules from Surfaces with Laser Desorption and Vacuum Ultraviolet (VUV) Photoionization

Don't blow me up: An imaging mass spectroscopy technique that uses laser desorption and vacuum ultraviolet (VUV) postionization has been characterized. It promises good spatial resolution and leads to minimal molecular fragmentation.



Chem. Asian J.
DOI: 10.1002/asia.201100419

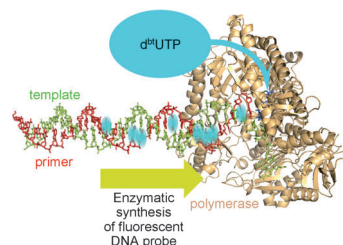


Nucleotides

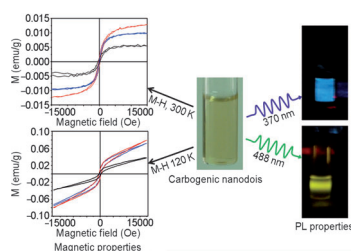
K. Sato, A. Sasaki, A. Matsuda*

Highly Fluorescent 5-(5,6-Dimethoxybenzothiazol-2-yl)-2'-Deoxyuridine 5'-Triphosphate as an Efficient Substrate for DNA Polymerases

Light up a match: A fluorescent uracil analogue, $\text{d}^{\text{bt}}\text{UTP}$ was synthesized and incorporated into primer/template duplexes by using primer-extension reactions. We found that $\text{d}^{\text{bt}}\text{UTP}$ was site specifically incorporated into ODNs opposite adenine, and that $\text{d}^{\text{bt}}\text{U}$ in a template acted in an identical manner to dT in its base-pairing pattern.



ChemBioChem
DOI: 10.1002/cbic.201100452



ChemPhysChem

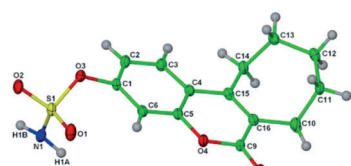
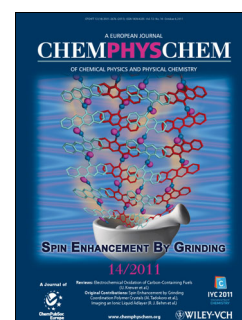
DOI: 10.1002/cphc.201100188

Nanodots

S. Srivastava, N. S. Gajbhiye*

Carbogenic Nanodots: Photoluminescence and Room-Temperature Ferromagnetism

A spot of blue: Blue-fluorescent carbogenic nanodots (CNDs) are synthesized by thermal decomposition and their room-temperature ferromagnetic nature is revealed. Photoluminescence (PL) studies show excitation-wavelength-dependent emission properties and PL excitation (PLE) studies confirm the triplet ground state of carbene at the zigzag edge as the fluorescent center (see picture).



ChemMedChem

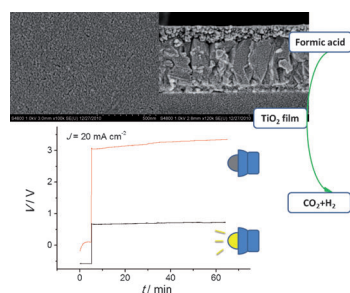
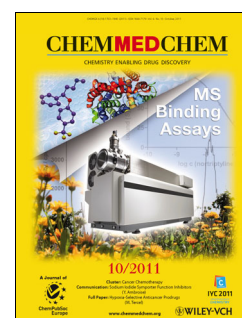
DOI: 10.1002/cmdc.201100288

Antitumor Agents

L. W. L. Woo, D. Ganeshpillai, M. P. Thomas, O. B. Sutcliffe, B. Malini, M. F. Mahon, A. Purohit, B. V. L. Potter*

Structure–Activity Relationship for the First-in-Class Clinical Steroid Sulfatase Inhibitor Irosustat (STX64, BN83495)

Hard to beat! The inhibition of steroid sulfatase (STS) may represent an effective form of endocrine therapy. Irosustat (STX64, BN83495) is the first STS inhibitor to enter clinical trials in patients with advanced hormone-dependent cancer. Derivatives of Irosustat were prepared, providing a range of SAR information for this new drug.



ChemSusChem

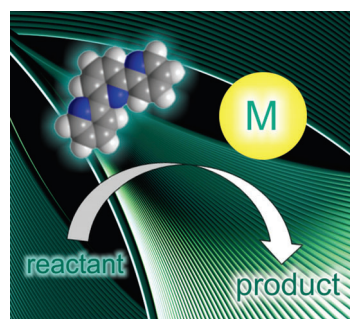
DOI: 10.1002/cssc.201100167

Water Splitting

L. Li, W. L. Guo, Y. S. Zhu, Y. P. Wu*

Hydrogen Production by Photoelectrochemically Splitting Solutions of Formic Acid

Do the splits: A TiO₂/fluorine-doped tin oxide (FTO) electrode is prepared by a dip-coating method and used as a photoanode to split an aqueous solution of formic acid to produce hydrogen (see picture). The splitting voltage is substantially lower and the energy-conversion efficiency can be 1.79%.



ChemCatChem

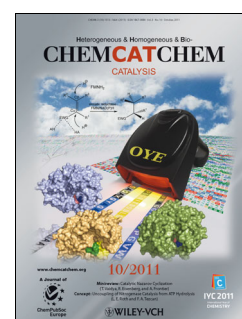
DOI: 10.1002/cctc.201100118

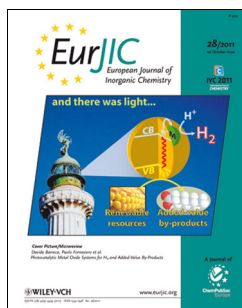
Organometallic Catalysis

A. Winter, G. R. Newkome,* U. S. Schubert*

Catalytic Applications of Terpyridines and their Transition Metal Complexes

More to this than meets the eye: The concept of terpyridine complexes and catalysis is reviewed critically with respect to applications in conventional organometallic catalysis as well as in electro- and photocatalytic processes.



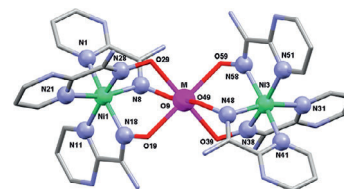


Oximate-Bridged Bimetallic Complexes

C. Kalogridis, M. A. Palacios, A. Rodríguez-Diéguez, A. J. Mota, D. Choquesillo-Lazarte, E. K. Brechin, E. Colacio,*

Heterometallic Oximate-Bridged Linear Trinuclear $Ni^{II} - M^{III} - Ni^{II}$ ($M^{III} = Mn, Fe, Tb$) Complexes Constructed with the *fac*- $O_3 [Ni(HL)_3]^-$ Metalloligand ($H_2L =$ pyrimidine-2-carboxamide oxime): A Theoretical and Experimental Magneto-Structural Study

Three oximate-bridged linear heterobimetallic complexes $[NiMNi]$ ($M = Mn^{3+}, Fe^{3+}, Tb^{3+}$) have been prepared using $[Ni(HL)]^-$ ($H_2L =$ pyrimidine-2-carboxamide oxime). The size of the antiferromagnetic interactions in the Mn^{3+} and Fe^{3+} complexes has been supported by DFT calculations and justified on based on structural parameters, e.g. the $Ni-N-O-M$ torsional angle and the distortion from the $OC-6$ octahedral to the TPR-6 trigonal prismatic geometry.



Eur. J. Inorg. Chem.
DOI: 10.1002/ejic.201100700

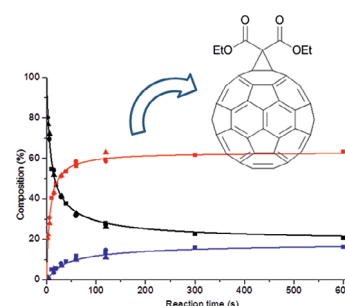


Continuous Flow Kinetics

S. Silvestrini, D. Dalle Nogare, T. Carofiglio, E. Menna, P. Canu, M. Maggini*

Continuous Flow Synthesis of Methanofullerenes in Microstructured Reactors: A Kinetic Study

A simple fluidic setup for the continuous production of methanofullerenes allowed kinetic studies to be performed on this fast process and its selectivity to be optimized.



Eur. J. Org. Chem.
DOI: 10.1002/ejoc.201100993

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