Spotlights ...

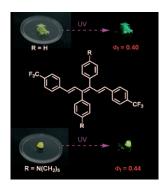


Fluorescent Compounds

M. Shimizu,* H. Tatsumi, K. Mochida, K. Shimono, T. Hiyama

Synthesis, Crystal Structure, and Photophysical Properties of (1*E*,3*E*,5*E*)-1,3,4,6-Tetraarylhexa-1,3,5-trienes: A New Class of Fluorophores Exhibiting Aggregation-Induced Emission

Emissive in powder: (1E,3E,5E)-1,3,4,6-Tetraarylhexa-1,3,5-trienes that are nonemissive in CHCl₃, are demonstrated to exhibit fluorescence in powder form with good quantum yields of up to 0.44. The emission color ranges from blue to green depending on the substituents at the para position of the phenyl groups.



Chem. Asian J.

DOI: 10.1002/asia.200900110

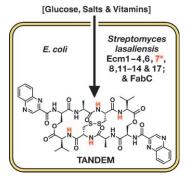


Natural Products

K. Watanabe,* K. Hotta, A. P. Praseuth, M. Searcey, C. C. C. Wang, H. Oguri, H. Oikawa

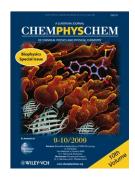
Rationally Engineered Total Biosynthesis of a Synthetic Analogue of a Natural Quinomycin Depsipeptide in Escherichia coli

Drugs from bugs. We have successfully expanded the scope of our E. coli-based total biosynthesis of natural products and their analogues by rationally engineering the echinomycin biosynthesis pathway for the production of a synthetic analogue of triostin A, TANDEM; this demonstrates the amenability of the biosynthesis enzymes and E. coli towards further engineering.



ChemBioChem

DOI: 10.1002/cbic.200900260

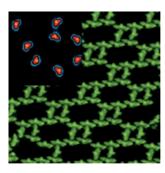


Molecular Networks

S. Kuck,* S.-H. Chang, J.-P. Klöckner, M. H. Prosenc, G. Hoffmann, R. Wiesendanger

Steering Two-Dimensional Molecular Growth via Dipolar Interaction

Molecular networks: Chiral and metallized Salen molecules on a Cu(111) are investigated using local probe techniques (see figure). Whereas for the parent Co-Salen molecule no self-assembly is observed, in the metal-organic complexes the growth of large and regular molecular networks is achieved through a target-oriented synthetic design of the local electrostatic dipolar molecular fields.



Chem Phys Chem

DOI: 10.1002/cphc.200900281

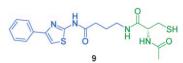


Drug Design

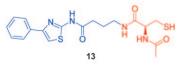
K. V. Butler, R. He, K. McLaughlin, G. Vistoli, B. Langley, A. P. Kozikowski*

Stereoselective HDAC Inhibition from Cysteine-Derived Zinc-Binding

Neuroprotective histone deacetylase (HDAC) inhibitors, featuring zinc chelating groups derived from cysteine, were synthesized. Modifying the chirality of the cysteine residue revealed a strong stereochemical preference for the L-cysteine isomer.



HDAC6 IC₅₀=0.542 μM



HDAC6 IC₅₀>30 μм

ChemMedChem

DOI: 10.1002/cmdc.200900088

... on our Sister Journals

Eur. J. Inorg. Chem. DOI: 10.1002/ejic.200900365

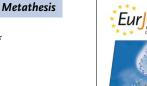
Metal-Nitrile Polymers

J. Olivier, S. Golhen*, R. Świetlik, O. Cador, F. Pointillart, L. Ouahab*

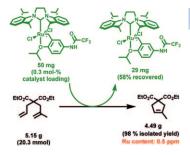
X-ray Structures, Spectroscopic and Magnetic Studies of a Coordination Polymer Series Based on a TTF Derivative and Paramagnetic Transition Metals

The reaction of 2,3,6,7-tetrakis (2-cyanoethylthio) tetrathia fulvalene (TCE-TTF) with hexafluoroacetylacetonate (hfac) salts of paramagnetic (Co^{II}, Mn^{II}) and diamagnetic (Zn^{II}, Cd^{II}) ions in the presence of tetrahedral anions (BF₄⁻ and ClO₄⁻) afforded four isostructural salts, whose structure and properties are presented.





Eurlo



Eur. J. Org. Chem. DOI: 10.1002/ejoc.200900407

H. Clavier, F. Caijo, E. Borré, D. Rix, F. Boeda, S. P. Nolan,* M. Mauduit*

Towards Long-Living Metathesis Catalysts by Tuning the N-Heterocyclic Carbene (NHC) Ligand on Trifluoroacetamide-Activated Boomerang Ru Complexes

The synthesis, characterization, and catalytic performance of novel trifluoromethylamido-containing "boomerang" precatalysts bearing various NHCs are presented. The reaction profiles show a matched effect between the activating function and the NHC ligand SIPr that also results in enhanced complex stability.

Type C Halogen bond strength dial

Chem. Eur. J. DOI: 10.1002/chem.200900410

Crystal Engineering

G. Mínguez Espallargas, F. Zordan, L. Arroyo Marín, H. Adams, K. Shankland, J. van de Streek, L. Brammer*

Rational Modification of the Hierarchy of Intermolecular Interactions in Molecular Crystal Structures by Using Tunable Halogen Bonds

Dial-in interaction strength: Tuning the strength of one type of intermolecular interaction affects the relative importance of different interactions in directing the crystal structure adopted. C-X···X′-M halogen bonds can be tuned in strength by changing either the organic (X) or inorganic (X') halogen.



Methanol Oxidation

B. P. C. Hereijgers, B. M. Weckhuysen*

Selective Oxidation of Methanol to Hydrogen over Gold Catalysts Promoted by Alkaline-Earth-Metal and Lanthanum Oxides

Basic instinct: CO-poor H₂ production from methanol by partial oxidation over promoted gold catalysts is considerably enhanced by increasing the surface basicity of the catalyst. The combination of gold nanoparticles with lanthanum oxide as promoter or support material yields the highest H₂ selectivity at the lowest CO formation.

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6193