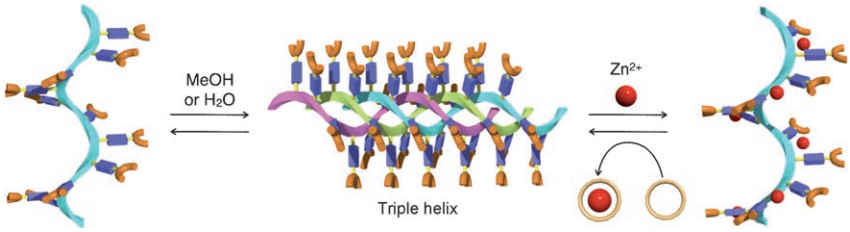
Helical Structures

M. Ikeda, S. Haraguchi, M. Numata, S. Shinkai*

Controlled Stability of the Triple-Stranded Helical Structure of a β-1,3-Glucan with a Chromophoric Aromatic Moiety at a Peripheral Position

Chem. Asian J.
DOI: **10.1002/asia.200700150**



Twisted nature: A semiartificial β-1,3-glucan that bears chromophoric aromatic groups at its peripheral positions adopts a triple-stranded helical configuration in water- and methanol-rich dimethyl sulfoxide. The stability of this structure can be controlled by solvent composition and metal-ion binding.

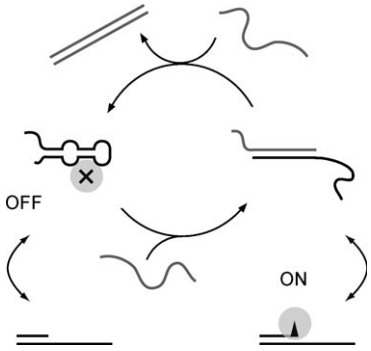
Aptamers

E. Friedrichs, F. C. Simmel*

Controlling DNA Polymerization with a Switchable Aptamer

ChemBioChem
DOI: **10.1002/cbic.200700296**

Controllable biochemical reactions. DNA polymerization by Taq polymerase can be controlled by switching an aptamer for Taq Pol between a binding and a non-binding form.



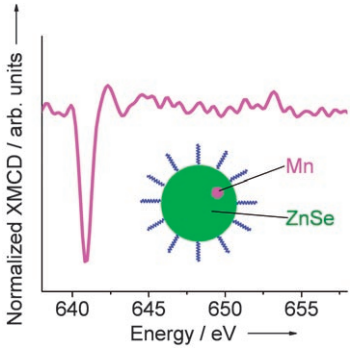
Semiconducting Nanocrystals

A. Hofmann, C. Graf,* C. Boeglin, E. Rühl

Magnetic and Structural Investigation of Mn^{2+}-Doped ZnSe Semiconductor Nanoparticles

ChemPhysChem
DOI: **10.1002/cphc.200700050**

Single manganese ions are located in the bulk interior of Mn-doped ZnSe (ZnSe:Mn) nanoparticles, according to studies by X-ray magnetic circular dichroism (XMCD). This method is a powerful tool for exploring the local electronic environment of transition-metal ions and for the quantitative investigation of their magnetic properties. The picture shows the XMCD spectrum and a schematic of a single particle with stabilizing organic ligands (green).

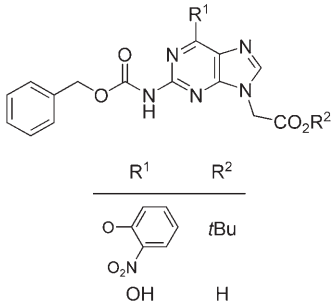


Antiviral Agents

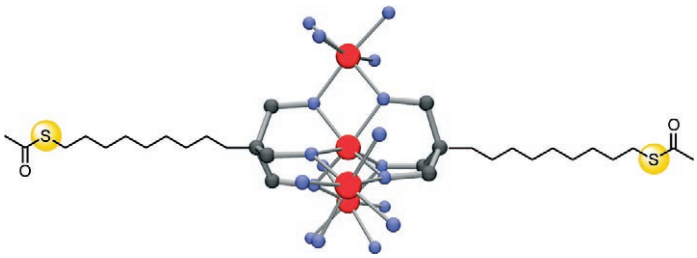
K. F. Adebambo, S. Zanoli, M. G. Thomas, R. Cancio, N. M. Howarth,* G. Maga*

N^2-Benzyloxycarbonylguan-9-yl Acetic Acid Derivatives as HIV-1 Reverse Transcriptase Non-Nucleoside Inhibitors with Decreased Loss of Potency Against Common Drug-Resistance Mutations.

ChemMedChem
DOI: **10.1002/cmdc.200700045**



Beating the RT mutants: A novel class of N^2-Cbz-guan-9-yl acetic acid derivatives is endowed with anti-HIV-1 reverse transcriptase (RT) activity in the low micromolar range. These compounds have improved efficacy towards drug-resistant RT mutants relative to nevirapine and efavirenz. Their unique scaffold and interesting resistance profiles warrant further development.



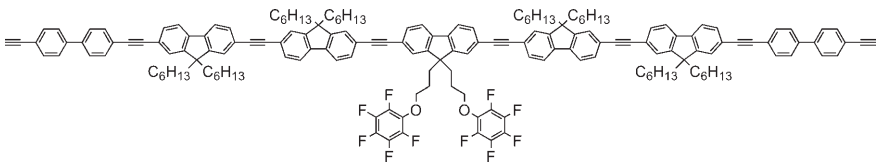
Single-molecule magnets of the Fe_4 family have been functionalized with terminal "alligator clips" by exploiting the site-specific coordinating ability of 2-(hydroxymethyl)propane-1,3-diol derivatives. The complexes have an $S = 5$ ground state and energy barriers exceeding 15 K.

Single-Molecule Magnets

A.-L. Barra, F. Bianchi, A. Caneschi, A. Cornia,* D. Gatteschi, L. Gorini, L. Gregoli, M. Maffini, F. Parenti, R. Sessoli,* L. Sorace, A. M. Talarico

New Single-Molecule Magnets by Site-Specific Substitution: Incorporation of "Alligator Clips" into Fe_4 Complexes

Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.200700382**



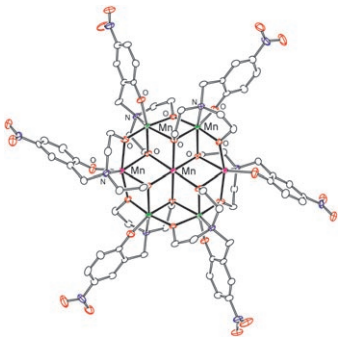
An aryleneethynylene derivative of ca. 8 nm molecular length with terminal alkyne substituents and 9,9-dihexylfluorene units in the backbone has been synthesized.

Molecular Wires

X. Zeng, C. Wang, M. R. Bryce,* A. S. Batsanov, S. Sirichantaropass, V. M. García-Suárez, C. J. Lambert, I. Sage

Functionalized 8 nm Long Aryleneethynylene Molecular Wire with Alkyne Termini

Eur. J. Org. Chem.
DOI: **10.1002/ejoc.200700507**



Wheel of magnets: A heptanuclear $Mn^{II,III}$ wheel-shaped single molecule magnet (see figure) has an $S = 19/2$ spin ground state with an easy-axis-type magnetic anisotropy of $D = -0.283$ K. Magnetization experiments using static and pulse field magnets showed different magnetic hysteresis loops due to quantum tunneling of the magnetization.

Single-Molecule Magnets

S. Koizumi, M. Nihei, T. Shiga, M. Nakano, H. Nojiri, R. Bircher, O. Waldmann, S. T. Ochsenbein, H. U. Güdel, F. Fernandez-Alonso, H. Oshio*

A Wheel-Shaped Single-Molecule Magnet of $[Mn^{II}_3Mn^{III}_4]$: Quantum Tunneling of Magnetization under Static and Pulse Magnetic Fields

Chem. Eur. J.
DOI: **10.1002/chem.200700714**

Auf diesen beiden 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 InterScience leicht online zugänglich.