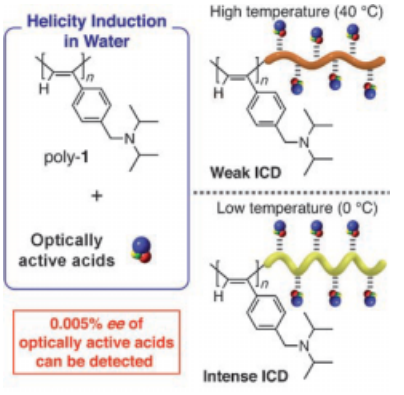
SPOTLIGHTS …

Helical Structures

K. Nagai, K. Maeda, Y. Takeyama, T. Sato, E. Yashima*

Temperature-Induced Chiroptical Changes in a Helical Poly(phenylacetylene) Bearing *N*,*N*-Diisopropylaminomethyl Groups with Chiral Acids in Water

Chem. Asian J.
DOI: **10.1002/asia.200700185**



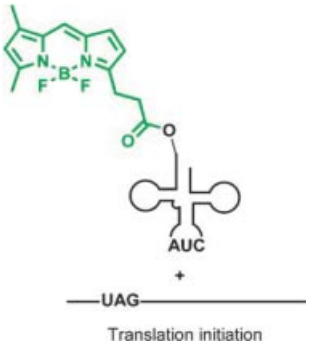
Blowing hot and cold: The title compound (poly-**1**) is highly sensitive to the chirality of chiral acids and can detect small enantiomeric imbalances in these acids in water. Its one-handed helical structure produces induced circular dichroism (ICD), whose signal intensity and pattern depend on the temperature and concentration of poly-**1**.

Protein Translation

N. Muranaka, M. Miura, H. Taira, T. Hohsaka*

Incorporation of Unnatural Non-α-Amino Acids into the N Terminus of Proteins in a Cell-Free Translation System

ChemBioChem
DOI: **10.1002/cbic.200700249**



Expanding translation initiation. Incorporation of unnatural carboxylic acids without α-amino groups was achieved by using chemically acylated initiator tRNA (see figure). The results suggest that various unnatural compounds with a carboxyl group can be incorporated into the N terminus of proteins.

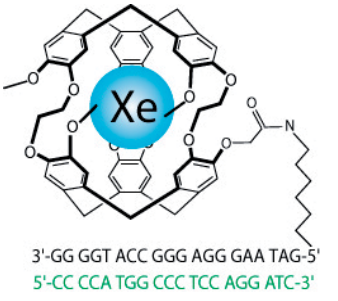
Xenon Biosensor

V. Roy, T. Brotin, J.-P. Dutasta, M.-H. Charles, T. Delair, F. Mallet, G. Huber, H. Desvaux, Y. Boulard, P. Berthault*

A Cryptophane Biosensor for the Detection of Specific Nucleotide Targets through Xenon NMR Spectroscopy

ChemPhysChem
DOI: **10.1002/cphc.200700384**

DNA sensor: A xenon host composed of a cryptophane structure with a DNA strand (see picture) serves to detect its complementary strand in the micromolar range through laser-polarized ^{129}Xe NMR spectroscopy.



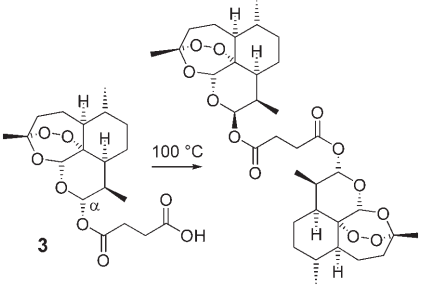
Drug Stability

R. K. Haynes,* H.-W. Chan, C.-M. Lung, N.-C. Ng, H.-N. Wong, L. Y. Shek, I. D. Williams, A. Cartwright, M. F. Gomes

Artesunate and Dihydroartemisinin (DHA): Unusual Decomposition Products Formed under Mild Conditions and Comments on the Fitness of DHA as an Antimalarial Drug

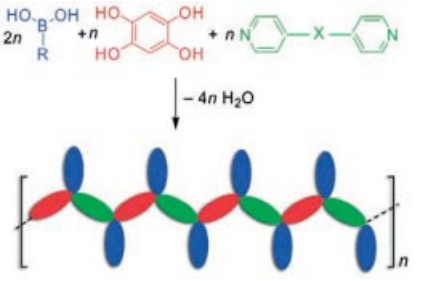
ChemMedChem
DOI: **10.1002/cmdc.200700064**

The front-line antimalarial drugs artesunate and DHA undergo thermal decomposition under mild conditions to give unusual dimeric peroxides, a glycal and a rearranged peroxide, in addition to benign decomposition products. The implications of the decomposition in relation to shelf-life determination according to the International Conference of Harmonization guidelines and use of DHA as an antimalarial drug are discussed.



… ON OUR SISTER JOURNALS

The three-component reaction of aryl boronic acids with 1,2,4,5-tetrahydroxybenzene and 1,2-bis(4-pyridyl)ethylene or 4,4′-bipyridine leads to the formation of boronate ester polymers, which are deeply colored due to efficient intrastrand charge-transfer excitations.

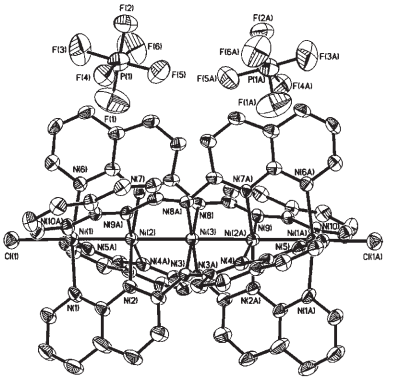


Multicomponent Self-Assembly

N. Christinat, E. Croisier, R. Scopelliti, M. Cascella, U. Röthlisberger, K. Severin*

Formation of Boronate Ester Polymers with Efficient Intrastrand Charge-Transfer Transitions by Three-Component Reactions

Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.200700723**



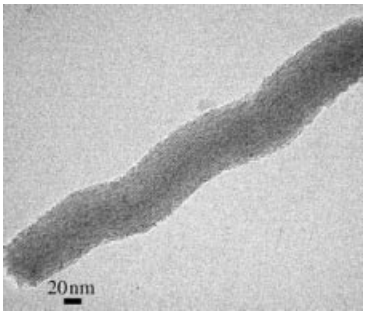
Metal string! The first linear nickel framework in which the usual sequence of Ni^{II} atoms has been reduced by two electrons is presented. The electronic structure of the metal framework appears intermediate between a localized picture corresponding to Ni^{II}-Ni^{I}-Ni^{II}-Ni^{I}-Ni^{II} and a fully delocalized model represented as $(Ni_2)^{3+}$-Ni^{II}-$(Ni_2)^{3+}$.

Mixed-Valent Compounds

I. P.-C. Liu, M. Bénard,* H. Hasanov, I.-W. P. Chen, W.-H. Tseng, M.-D. Fu, M.-M. Rohmer, C.-h. Chen, G.-H. Lee, S.-M. Peng*

A New Generation of Metal String Complexes: Structure, Magnetism, Spectroscopy, Theoretical Analysis, and Single Molecular Conductance of an Unusual Mixed-Valence Linear $[Ni_5]^{8+}$ Complex

Chem. Eur. J.
DOI: **10.1002/chem.200700750**



Keep this handy! Periodic mesoporous organosilica-based compounds with chiral channels are prepared by using an achiral fluorinated surfactant (FC-4911) and cetyltrimethylammonium bromide as structure-directing agents. Spiral samples synthesized from 1,4-bis(triethoxysilyl)benzene exhibit structural periodicity and a crystal-like mesoporous wall (see TEM image).

Mesoporous Materials

X. Meng, T. Yokoi, D. Lu, T. Tatsumi*

Synthesis and Characterization of Chiral Periodic Mesoporous Organosilicas

Angew. Chem. Int. Ed.
DOI: **10.1002/anie.200702666**

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