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die Artikel mit einem Klick direkt aufrufen, ansonsten sind sie durch Eingabe der DOIs über Wiley Online Library leicht online zugänglich.

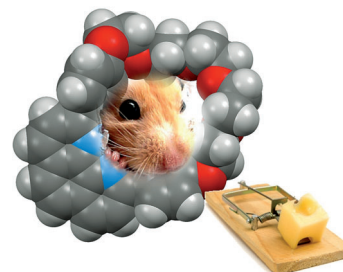


Self-Assembly

M. Mohankumar, F. Monti, M. Holler, F. Niess, B. Delavaux-Nicot,*
N. Armaroli,* J.-P. Sauvage,* J.-F. Nierengarten*

Combining Topological and Steric Constraints for the Preparation of Heteroleptic Copper(I) Complexes

Fortunately too small... The bulky PPh₂ subunits of bis-phosphine ligands prevent the threading through of a macrocyclic phenanthroline and the preparation of Cu^I complexed pseudo-rotaxanes is not possible. The combination of steric and topological constraints governs the self-assembly process and affords a dinuclear Cu^I complex with trigonal coordination geometry and remarkable photophysical properties.



Chem. Eur. J.
DOI: 10.1002/chem.201402429

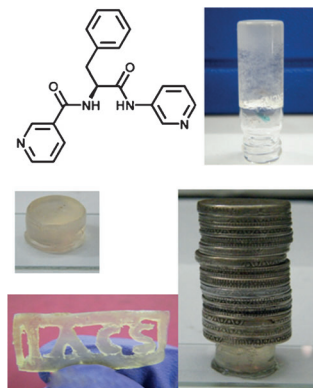


Supramolecular Gels

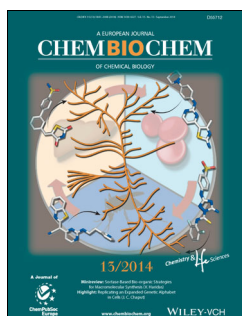
U. K. Das, S. Banerjee, P. Dastidar*

Remarkable Shape-Sustaining, Load-Bearing, and Self-Healing Properties Displayed by a Supramolecular Gel Derived from a Bis-pyridyl-bis-amide of L-Phenyl Alanine

Healing is a matter of time: A series of bis-amides derived from L-phenylalanine and L-alanine displayed moderate to good gelation ability with various solvents. Structure–property correlation using single-crystal and powder X-ray diffraction on selected gels was attempted. One of the gelator resulted in a gel with outstanding load-bearing and self-healing properties. The 1,2-dichlorobenzene gel of this gelator was so strong that letters could be carved into a thin slice of the gel.



Chem. Asian J.
DOI: 10.1002/asia.201402053

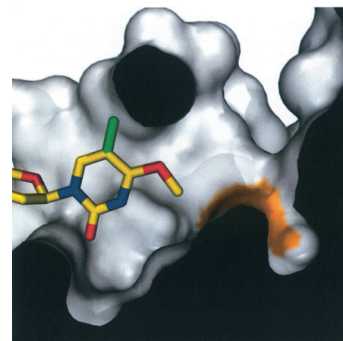


DNA Repair

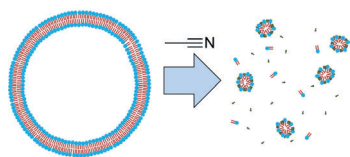
F. P. McManus, C. J. Wilds*

O⁶-Alkylguanine-DNA Alkyltransferase-Mediated Repair of O⁴-Alkylated 2'-Deoxyuridines

In need of repair: O⁶-Alkylguanine-DNA alkyltransferases (AGTs) remove O⁶-alkyl 2'-deoxyguanosine and O⁴-alkyl thymidine adducts from the genome. Unlike the *E. coli* OGT (O⁶-alkylguanine-DNA-alkyltransferase), human AGT only removes methyl groups from the O⁴ atom of thymidine poorly. The C5 methyl group of thymidine affects AGT repair, as was revealed by experiments with oligonucleotides containing O⁴-alkyl 2'-deoxyuridines.



ChemBioChem
DOI: 10.1002/cbic.201402169



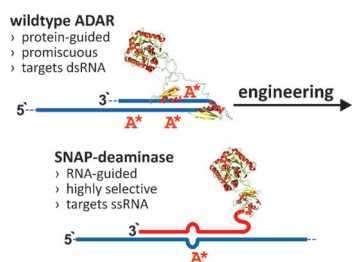
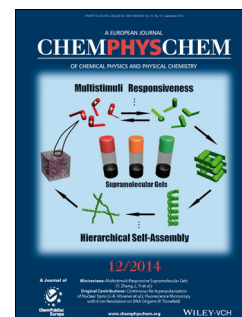
ChemPhysChem
DOI: 10.1002/cphc.201402333

Liposome Bursting

K. Yoshida,* K. Horii, Y. Fujii, I. Nishio

Real-Time Observation of Liposome Bursting Induced by Acetonitrile

Popping some bubbles: Liposome bursting induced by acetonitrile addition is demonstrated. The picture shows a schematic illustration of the bursting process. Lipid droplets and/or small vesicles form after large liposomes burst.



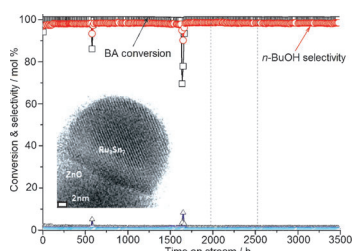
ChemMedChem
DOI: 10.1002/cmdc.201402139

Bioengineering

P. Vogel, T. Stafforst*

Site-Directed RNA Editing with Antagomir Deaminases — A Tool to Study Protein and RNA Function

Molecular editing: RNA editing activity was engineered into a tool for the precise manipulation of RNA and protein function. The engineering principle may be useful as a blueprint for the creation of further riboproteins with arbitrary functions as they are desired in basic biology, medicine, or nanotechnology.



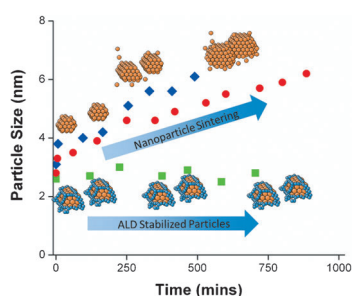
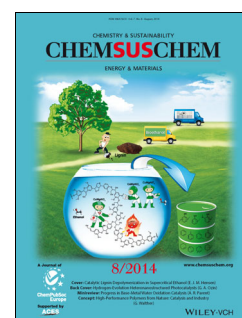
ChemSusChem
DOI: 10.1002/cssc.201402311

Platform Chemicals

J.-M. Lee, P. P. Upare, J.-S. Chang,* Y. K. Hwang, J. H. Lee, D. W. Hwang, D.-Y. Hong, S. H. Lee, M.-G. Jeong, Y. D. Kim, Y.-U. Kwon

Direct Hydrogenation of Biomass-Derived Butyric Acid to *n*-Butanol over a Ruthenium–Tin Bimetallic Catalyst

True convert: A hybrid conversion process for the selective hydrogenation of butyric acid combined with fermentation of glucose is developed. Bimetallic ruthenium–tin catalysts supported on zinc oxide (Ru–Sn/ZnO) show good performance in the vapor-phase hydrogenation of biomass-derived butyric acid to *n*-butanol, as well as good long-term performance.



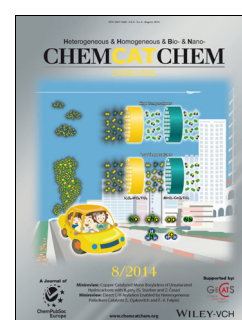
ChemCatChem
DOI: 10.1002/cctc.201402356

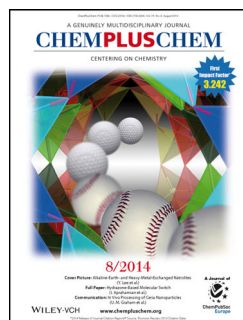
Sintering

B. J. O'Neill, J. T. Miller, P. J. Dietrich, F. G. Sollberger, F. H. Ribeiro, J. A. Dumesic*

Operando X-ray Absorption Spectroscopy Studies of Sintering for Supported Copper Catalysts during Liquid-phase Reaction

Scouting for the next best thing: Operando X-ray absorption spectroscopy measured simultaneous changes in catalyst structure and activity during the liquid-phase hydrogenation of furfural over supported copper catalysts, allowing these changes to be accounted for in the calculation of turnover frequency. Sintering is the predominant form of deactivation for a Cu/ γ -Al₂O₃ catalyst, and is eliminated by atomic layer deposition of an alumina overcoat.



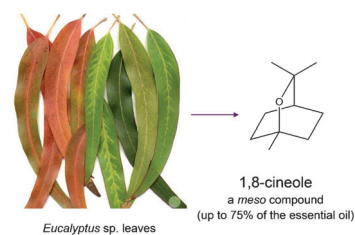


1,8-Cineole Chemistry

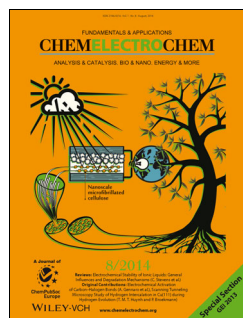
R. Azerad*

1,8-Cineole: Chemical and Biological Oxidation Reactions and Products

Turn over a new leaf: The products of chemical and biological oxidation (hydroxy, oxo, and acid derivatives) of 1,8-cineole (see figure) are reviewed with a focus on the diverse regio- and stereoselectivities obtained from this *meso* monoterpene compound abundantly present in eucalyptus leaves.



ChemPlusChem
DOI: 10.1002/cplu.201300422

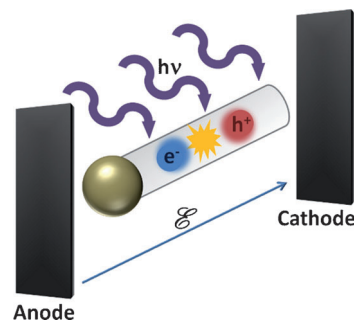


Janus objects

M. Ongaro, J. Roche, A. Kuhn,* P. Ugo*

Asymmetric Modification of TiO₂ Nanofibers with Gold by Electric-Field-Assisted Photochemistry

Directing charge carriers: Highly site-selective metal deposition on semiconductor nanofibers is achieved based on a synergetic effect when combining UV irradiation and strong electric fields. This leads in a straightforward way to metal/semiconductor Janus objects. With this approach, TiO₂ nanofibers are anisotropically functionalised depositing gold only at one tip of each fiber.



ChemElectroChem
DOI: 10.1002/celc.201402161

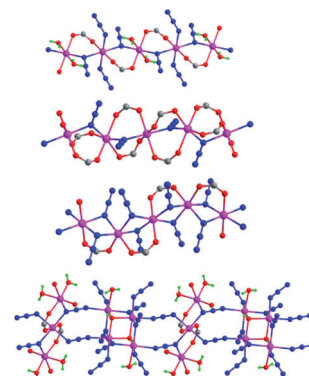


Coordination Polymers

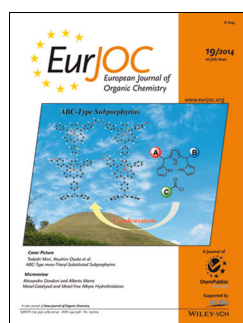
G.-M. Zhuang, X.-B. Li, Y.-Q. Wen, C.-Y. Tian, E.-Q. Gao*

Structures and Magnetic Properties of Manganese(II) Compounds Based on Chains with Simultaneous Carboxylate and Pseudohalide Bridges

Various zwitterionic carboxylate ligands lead to 1D, 2D and 3D Mn^{II} coordination polymers based on distinct chains with mixed carboxylate and pseudo-halide (azide or cyanate) bridges. Magneto-structural correlations are discussed.



Eur. J. Inorg. Chem.
DOI: 10.1002/ejic.201402287

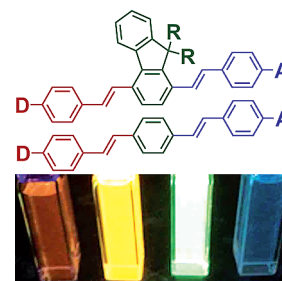


Donor–Acceptor Systems

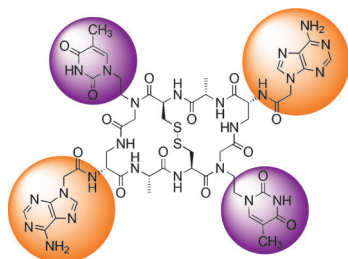
B. J. Laughlin, M. K. Burdette, C. R. Powell, B. E. Levy, A. G. Tennyson,* R. C. Smith*

Donor–Acceptor 1,4-Fluorenylene Chromophores: Photophysics, Electrochemistry, and Synthesis through a Route for Asymmetric Chromophore Preparation

A convenient route for the asymmetric derivatization of 1,4-phenylene and 1,4-fluorenylene cores is reported and applied to the preparation of fourteen chromophores. The chromophores were examined by electrochemical techniques, photophysical studies, and DFT calculations.



Eur. J. Org. Chem.
DOI: 10.1002/ejoc.201402181



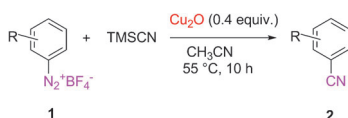
ChemistryOpen
DOI: 10.1002/open.201400001

DNA Binders

U. M. Kotyrba, K. Pröpper, E.-F. Sachs, A. Myanovska, T. Joppe, F. Lissy, G. M. Sheldrick, K. Koszinowski, U. Diederichsen*

Triostin A Derived Cyclopeptide as Architectural Template for the Alignment of Four Recognition Units

Designed to match! Four nucleobases were attached to the disulfide bridged cyclopeptide scaffold derived from the DNA bisintercalator triostin. The aza-TANDEM backbone provides organization and alignment of the nucleobases, allowing for application in sequence-dependent DNA recognition and molecular architecture.



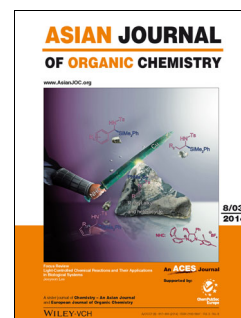
Asian J. Org. Chem.
DOI: 10.1002/ajoc.201402084

Cyanation

W.-B. Xu, Q.-H. Xu, Z.-F. Zhang, J.-Z. Li*

Copper(I)-Oxide-Mediated Cyanation of Arenediazonium Tetrafluoroborates with Trimethylsilyl Cyanide: A Method for Synthesizing Aromatic Nitriles

Goodnit-rile: A Cu₂O-mediated cross coupling of arenediazonium tetrafluoroborates with trimethylsilyl cyanide (TMS-CN) to form aromatic nitriles is presented. This method provides appealing and convenient access to aromatic nitriles compared with the traditional Sandmeyer reaction with toxic CuCN via nucleophilic substitution. A variety of functional groups are well tolerated in moderate to high yield in this protocol.



ChemViews magazine
DOI: 10.1002/chemv.201400065

Comic Competition

Cartoon Contest

ChemistryViews invites you to submit a cartoon showing the challenges, pitfalls, fun, and excitement related to chemistry in a creative way. All comics will be published on the ChemistryViews.org website and the best three submissions will receive prizes.

