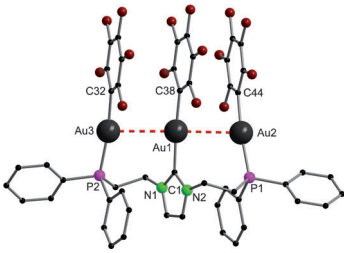
Auf diesen Seiten weisen wir auf wichtige aktuelle Beiträge in unseren Schwesterzeitschriften hin. Wenn Sie die Seiten online lesen, dann können Sie die Artikel mit einem Klick direkt aufrufen, ansonsten sind sie durch Eingabe der DOIs über Wiley Online Library leicht online zugänglich.

Polynuclear gold complexes

S. Bestgen, M. T. Gamer, S. Lebedkin, M. M. Kappes, P. W. Roesky*

Di- and Trinuclear Gold Complexes of Diphenylphosphinoethyl-Functionalised Imidazolium Salts and their N-Heterocyclic Carbenes: Synthesis and Photophysical Properties

The golden age: Diphenylphosphinoethyl-functionalised imidazolium salts and their silver–carbene complexes were used to synthesise a series of di- and trinuclear gold complexes with and without aurophilic interactions. The photophysical properties were investigated.



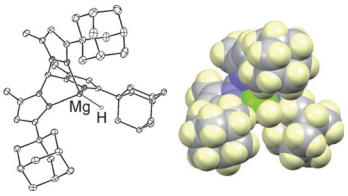
Chem. Eur. J.
DOI: **10.1002/chem.201404985**

Ligand Design

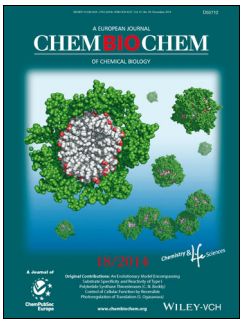
R. Lalrempuia, A. Stasch,* C. Jones*

An Extremely Bulky Tris(pyrazolyl)methanide: A Tridentate Ligand for the Synthesis of Heteroleptic Magnesium(II) and Ytterbium(II) Alkyl, Hydride, and Iodide Complexes

Go big or go home! A tris(pyrazolyl)methanide ligand of unprecedented bulk is developed and utilized in the synthesis of a series of heteroleptic magnesium(II) and ytterbium(II) complexes. These include a rare example of a terminal magnesium hydride compound.



Chem. Asian J.
DOI: **10.1002/asia.201403089**

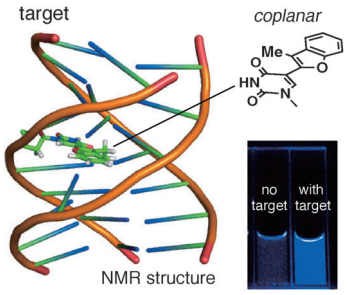


Fluorescent DNA Probes

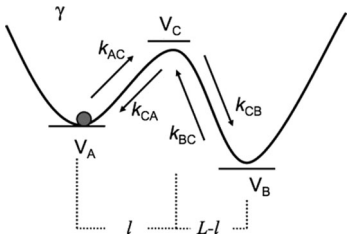
T. Kanamori, H. Ohzeki, Y. Masaki, A. Ohkubo, M. Takahashi, K. Tsuda, T. Ito, M. Shirouzu, K. Kuwasako, Y. Muto, M. Sekine,* K. Seio*

Controlling the Fluorescence of Benzofuran-Modified Uracil Residues in Oligonucleotides by Triple-Helix Formation

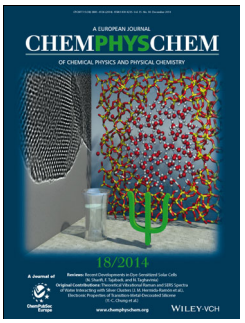
Fluorescence turn-on probes: DNA triplexes incorporating fluorescent nucleoside, 5-(3-methylbenzofuran-2-yl)deoxyuridine (dU^{MBF}), were studied. Upon triplex formation, the fluorescence intensity increased in response to changes in the microenvironment and the conformation of dU^{MBF}. The application of these fluorescent triplexes to RNA detection was also demonstrated.



ChemBioChem
DOI: **10.1002/cbic.201402346**



Molecular Motors

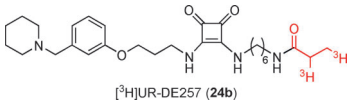


E. Bakalis,* F. Zerbetto*

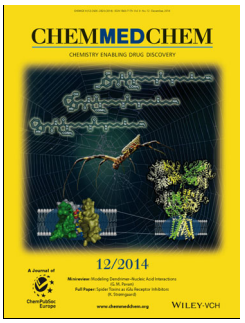
Are Two-Station Biased Random Walkers Always Potential Molecular Motors?

Nanomachines undergo a biased, unidirectional walk on a two-minima potential energy curve (PEC)—as do all chemical reactions. Starting from a general inequality that can be implemented on a spreadsheet, the authors provide guidelines for the selection of the features that make a double-minimum PEC belong to a true artificial molecular motor.

ChemPhysChem
DOI: **10.1002/cphc.201402557**



Radioligands

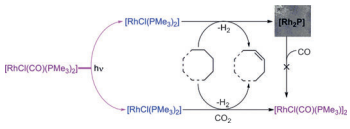


P. Baumeister, D. Erdmann, S. Biselli, N. Kagermeier, S. Elz, G. Bernhardt, A. Buschauer*

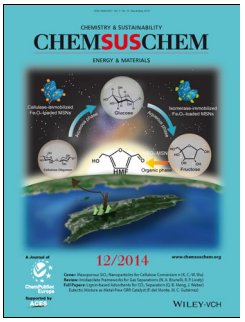
[^{3}H]UR-DE257: Development of a Tritium-Labeled Squaramide-Type Selective Histamine H_2 Receptor Antagonist

Potent, selective H_2R antagonists are valuable tools for determining H_2R affinities in competition binding assays. Histamine and a number of drugs targeting H_2R have been used as radioligands, yet these compounds remain ineffective due to nonspecific binding, low affinity, or short windows of activity. The attachment of a [2,3-$^3H_2$]propionyl group by a six-membered linker to the squaramide of BMY 25368 resulted in a subtype-selective and potent radioligand (K_d = 31 nM, hH_2R-expressing Sf9 insect cell membranes).

ChemMedChem
DOI: **10.1002/cmdc.201402344**



Photocatalytic Dehydrogenation

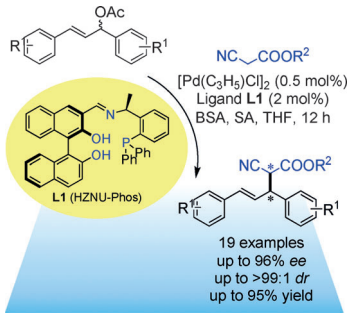


A. D. Chowdhury, J. Julis, K. Grabow, B. Hannebauer, U. Bentrup, M. Adam, R. Franke, R. Jackstell, M. Beller*

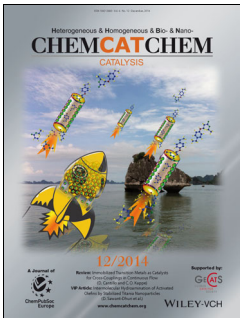
Photocatalytic Acceptorless Alkane Dehydrogenation: Scope, Mechanism, and Conquering Deactivation with Carbon Dioxide

CO_2 catalysis: A CO_2-influenced, improved dehydrogenation protocol is described using *trans*-Rh(PMe$_3$)$_2$(CO)Cl as a catalyst. Alkanes and liquid organic hydrogen carriers are used as substrates under benign homogeneous reaction conditions. High catalyst turnover numbers as well as high yields are obtained because of the prevention of catalyst deactivation.

ChemSusChem
DOI: **10.1002/cssc.201402850**



Palladium Catalysis

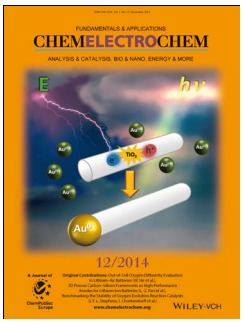


W.-H. Deng, F. Ye, X.-F. Bai, Z.-J. Zheng, Y.-M. Cui, L.-W. Xu*

Multistereogenic Phosphine Ligand-promoted Palladium-Catalyzed Allylic Alkylation of Cyanoesters

AAA catalysis: Chiral monosubstituted 2-cyanoacetates are obtained in the catalytic allylic alkylation of unsubstituted 2-cyanoacetates, in which the multistereogenic 1,1′-bi-2-naphthol-derived multifunctional N,O,P ligand-promoted Pd-catalyzed asymmetric allylic alkylation reaction proceeds in high diastereo- and enantioselectivity (up to >99:1 *dr* and up to 96% *ee*). BA = Bis(trimethylsilyl)acetamide, SA = sodium ascorbate, HZNU-Phos = Hangzhou Normal University (HZNU)'s Phosphine Ligand L1.

ChemCatChem
DOI: **10.1002/cctc.201402733**

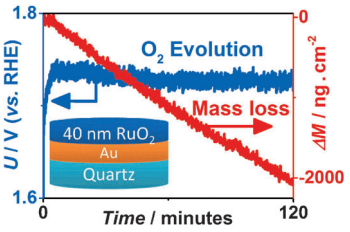


Electrocatalysis

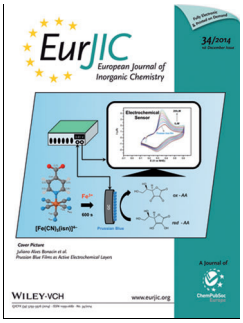
R. Frydendal, E. A. Paoli, B. P. Knudsen, B. Wickman, P. Malacrida, I. E. L. Stephens,* I. Chorkendorff*

Benchmarking the Stability of Oxygen Evolution Reaction Catalysts: The Importance of Monitoring Mass Losses

Quantifying stability: It is shown that short-term electrochemical measurements are inadequate to establish oxygen evolution catalyst stability. Independent measurements of mass losses are essential.



ChemElectroChem
DOI: **10.1002/celc.201402262**

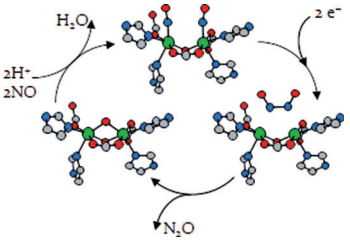


Nitric Oxide Reduction

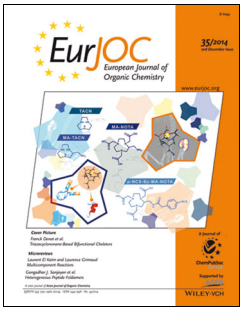
A. A. A. Attia, R. Silaghi-Dumitrescu*

Super-Reduced Mechanism of Nitric Oxide Reduction in Flavo-Diiron NO Reductases

We have investigated the super-reduced mechanism of nitric oxide reduction by flavo-diiron nitric oxide reductases, a favorable alternative to the previously proposed mono-nitrosyl mechanism. The two-electron reduction of $[\{FeNO\}^7]_2$ to $[\{FeNO\}^8]_2$ is proposed to initiate the reaction whereas N–O cleavage of the hyponitrite formed to yield nitrous oxide is suggested to be the rate-limiting step.



Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.201402385**

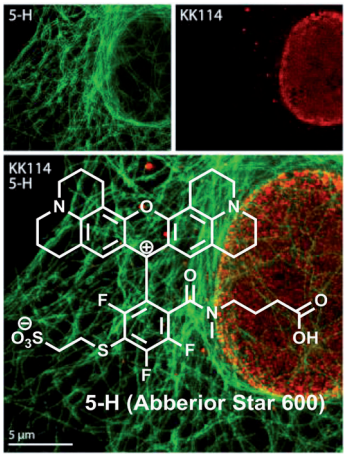


Dyes for Microscopy

G. Yu. Mitronova,* S. Polyakova, C. A. Wurm, K. Kolmakov, T. Wolfram, D. N. H. Meineke, V. N. Belov,* M. John,* S. W. Hell

Functionalization of the *meso*-Phenyl Ring of Rhodamine Dyes Through S_NAr with Sulfur Nucleophiles: Synthesis, Biophysical Characterizations, and Comprehensive NMR Analysis

Aromatic nucleophilic substitution of fluorine in 9-(3′-carboxy-4′,5′,6′,7′-trifluorophenyl) groups of xanthene dyes is regioselective (for thiols and amines). The reaction was used for the synthesis of a "bright" and very photostable dye for two-color superresolution microscopy. Characteristics of the NMR spectra may be used for structure elucidation of other fluorescent dyes.



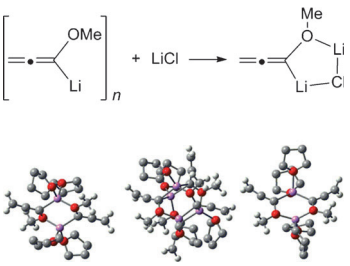
Eur. J. Org. Chem.
DOI: **10.1002/ejoc.201403269**

Computational Chemistry

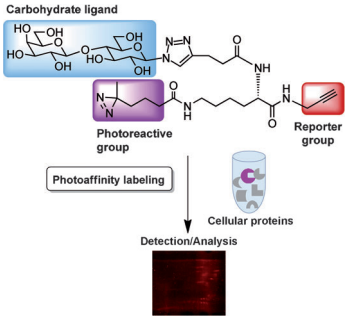
L. M. Pratt,* D. D. Dixon, M. A. Tius*

Mixed Aggregates of 1-Methoxyallenyllithium with Lithium Chloride

Dance of the dimers: A computational and ^{13}C NMR study was performed on 1-methoxyallenyllithium and lithium chloride. Free energies of mixed dimer, trimer, and tetramer formation were calculated by using the B3LYP and MP2 methods. The results are consistent with formation of a mixed dimer and possibly smaller amounts of higher mixed aggregates. Furthermore, for this system, calculated free energy values determined using the MP2 method were found to be in better agreement with experimental data than those calculated using the B3LYP method.



ChemistryOpen
DOI: **10.1002/open.201402025**



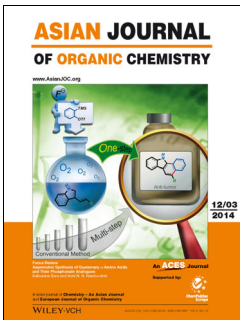
Asian J. Org. Chem.
DOI: **10.1002/ajoc.201402209**

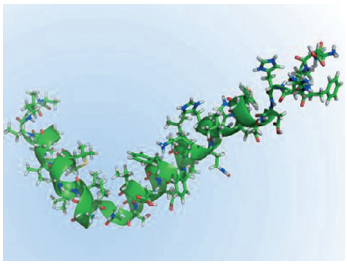
Photoaffinity Probes

K. Sakurai*

Photoaffinity Probes for Identification of Carbohydrate-Binding Proteins

Labeling in a flash: Photoaffinity labeling has been used as a promising chemical strategy for the detection and the identification of carbohydrate-protein interactions in their native environment. Recent examples for carbohydrate photoaffinity probes are highlighted, which have been designed to address challenges associated in capturing often elusive carbohydrate-binding proteins.





ChemViews magazine
DOI: **10.1002/chemv.201400128**

Medicinal Chemistry

D. Bradley

Shedding Light on Alzheimer's Treatment

As the average lifespan rises, so does the prevalence of neurodegenerative diseases such as Alzheimer's. In *ChemViews Magazine*, David Bradley looks at the research of Chan Beum Park, who has demonstrated that under light activation the dye Rose Bengal can block the aggregation of amyloid-β into plaques. This might slow or halt the development of Alzheimer's disease.