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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.

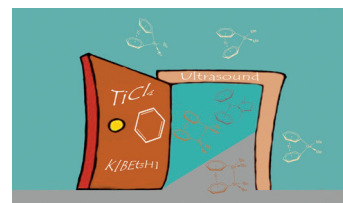


Titanium Complexes

H. Braunschweig,* C. Brückner, M. A. Celik, K. Dück, F. Hupp, T. Kramer, J. Krebs, I. Krummenacher

Ansa-Bridged Bis(benzene) Titanium Complexes

Bridge over bis(benzene) Ti: A route to unprecedented *ansa*-bridged bis(benzene) titanium complexes has been developed through dilithiation of a bis(arene) precursor and subsequent salt metathesis with Group 14 element halides (see figure). Furthermore, the linear complex bis(benzene) titanium was found to react with the N-heterocyclic carbene 1,3-dimethylimidazole-2-ylidene (IME) to give the bent sandwich complex $[\text{Ti}(\eta^6\text{-C}_6\text{H}_6)_2(\text{IME})]$.



Chem. Eur. J.
DOI: 10.1002/chem.201500737

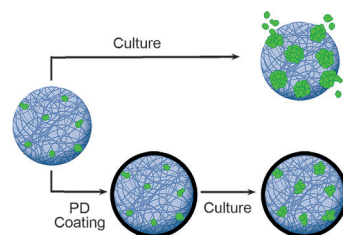


Encapsulation

B. J. Kim, T. Park, S.-Y. Park, S. W. Han, H.-S. Lee, Y.-G. Kim,* I. S. Choi*

Control of Microbial Growth in Alginate/Polydopamine Core/Shell Microbeads

Trapped alive: The growth of *Saccharomyces cerevisiae* yeast cells was tightly controlled by forming the polydopamine (PD) shell onto the alginate microbeads that encapsulated the yeast cells, and this controlled growth of microbes prevented unwanted cell release from the microbeads while maintaining cell viability.



Chem. Asian J.
DOI: 10.1002/asia.201500360

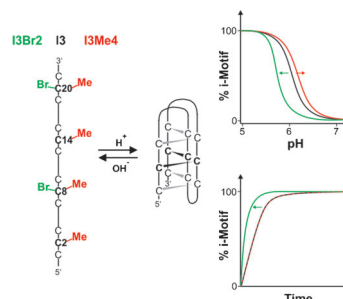


DNA Nanotechnology

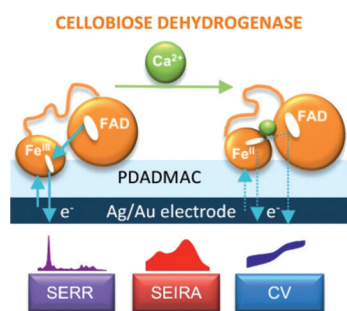
L. Lannes, S. Halder, Y. Krishnan, H. Schwalbe*

Tuning the pH Response of i-Motif DNA Oligonucleotides

pH response shifting: The human telomeric DNA molecule I3 is able to adopt an i-motif conformation in response to pH change. Herein, we show that the pH response range of I3 can be shifted towards more basic pH values by introducing 5-methylcytidines and towards more acidic pH values by introducing 5-bromocytidines, which accelerated folding of the i-motif.



ChemBioChem
DOI: 10.1002/cbic.201500182



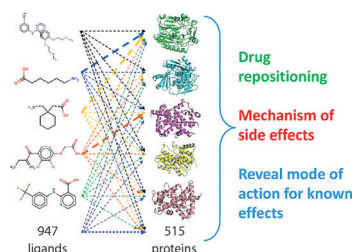
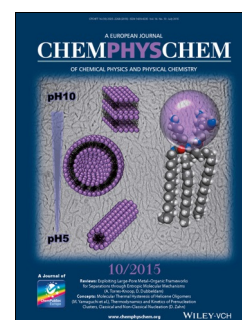
ChemPhysChem
DOI: 10.1002/cphc.201500112

Bioelectrochemistry

P. Kielb, M. Sezer, S. Katz, F. Lopez, C. Schulz, L. Gorton, R. Ludwig, U. Wollenberger, I. Zebger, I. M. Weidinger*

Spectroscopic Observation of Calcium-Induced Reorientation of Cellobiose Dehydrogenase Immobilized on Electrodes and its Effect on Electrocatalytic Activity

A new road: Electrochemistry combined with surface enhanced vibrational (SERR and SEIRA) spectroscopy are employed to obtain mechanistic insight into the catalytic performance of cellobiose dehydrogenase (MtCDH) immobilized on noble metal electrodes in the presence of Ca²⁺ ions. The results show induced reorientation of the enzyme on the electrode, which leads to a new electron transfer pathway between the protein and the electrode.



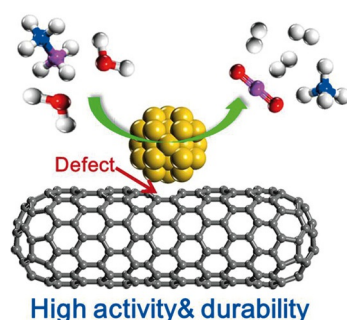
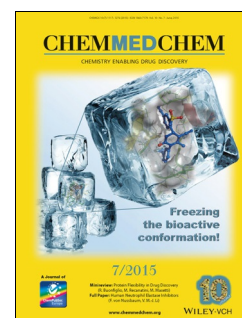
ChemMedChem
DOI: 10.1002/cmdc.201500123

Computational Medicinal Chemistry

H. Patel, X. Lucas, I. Bendik, S. Günther,* I. Merfort*

Target Fishing by Cross-Docking to Explain Polypharmacological Effects

Taking the bait: Target fishing was performed by high-throughput cross-docking of 947 well-known drugs with 515 proteins to find new target interactions. The cross-docking approach suggests drug repositioning opportunities, molecular mechanisms of side effects, and undiscovered modes of action.



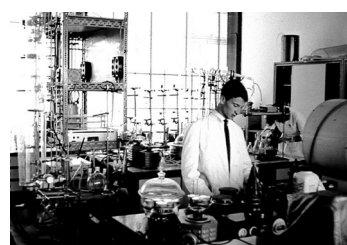
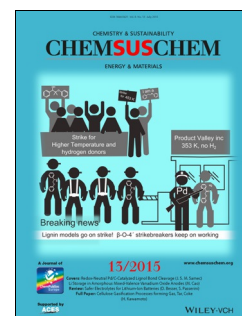
ChemSusChem
DOI: 10.1002/cssc.201500228

Hydrogen Storage

W. Chen, X. Duan,* G. Qian, D. Chen,* X. Zhou

Carbon Nanotubes as Support in the Platinum-Catalyzed Hydrolytic Dehydrogenation of Ammonia Borane

Just gimme defects please: The hydrolytic dehydrogenation of ammonia borane by platinum nanoparticles (NPs) is used to investigate the chemistry of carbon nanotube (CNT) supports. The use of defect-rich CNTs, as compared to pristine CNTs and CNTs rich in oxygen groups, not only enhances the binding energy of platinum, leading to the highest hydrogen generation rate, but also inhibits the adsorption of boron-containing species and stabilizes the platinum NPs to resist the agglomeration, leading to the highest durability.



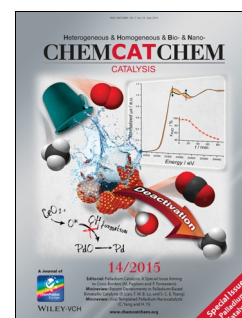
ChemCatChem
DOI: 10.1002/cctc.201505050

Happy Birthday

F. J. Lahoz,* J. J. Pérez-Torrente*

In Honour of the 70th Birthday of Professor Luis A. Oro

The bold and the beautiful: Prof. Luis Oro has a long career performed with tons of enthusiasm, excellent companions and plenty of generosity. It is our pleasure and privilege to walk around the main steps of Professor Oro's life; a life dedicated to investigation and to situating chemical research, and science in general, in the proper place in our modern society.



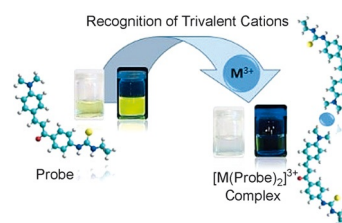


Sensors

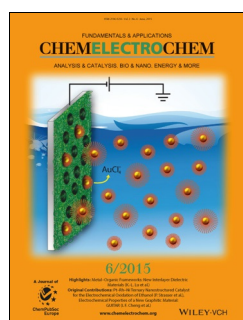
L. E. Santos-Figueroa, A. Llopis-Lorente, S. Royo, F. Sancenón, R. Martínez-Máñez,* A. M. Costero,* S. Gil, M. Parra

A Chalcone-Based Highly Selective and Sensitive Chromofluorogenic Probe for Trivalent Metal Cations

Recognizing trivalent cations: A new chalcone-containing probe has been devised for the chromo-fluorogenic sensing of Al^{3+} , Fe^{3+} , Cr^{3+} , Ga^{3+} , In^{3+} , and As^{3+} cations over mono- and divalent cations and several anions (see figure). The limit of detection of this probe is in the nM range.



ChemPlusChem
DOI: 10.1002/cplu.201500042

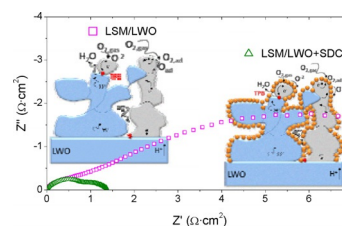


Fuel Cells

C. Solís, L. Navarrete, F. Bozza, N. Bonanos, J. M. Serra*

Catalytic Surface Promotion of Composite Cathodes in Protonic Ceramic Fuel Cells

Through the net: The incorporation of ceria-based catalytic nanoparticles in proton-conducting solid oxide fuel cell (SOFC) cathodes allows a substantial increase in the electrochemical activity related to oxygen reduction reactions, appearing exclusively at low frequencies in the impedance spectrum. These surface-related processes are further promoted by imposing a net current through the infiltrated electrode.



ChemElectroChem
DOI: 10.1002/celc.201500068

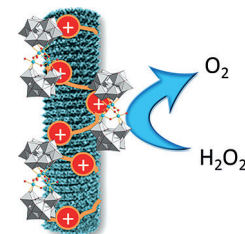


Polyoxometalate Catalysts

D. Vilona, A. Sorarù, C. Maccato, R. Bortolaso, L. Trainotti, F. Valentini, A. Boaretto, C. Cepek, M. Bonchio,* M. Carraro*

Viral Nanotemplates Armed with Oxygenic Polyoxometalates for Hydrogen Peroxide Detoxification

A polyoxometalate with oxygenic activity was anchored on the TMV (tobacco mosaic virus). The rod-like biogenic template enables the formation of catalytic nanoarrays for H_2O_2 dismutation.



Eur. J. Inorg. Chem.
DOI: 10.1002/ejic.201500155

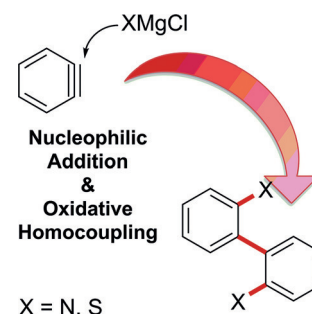


Synthetic Methods

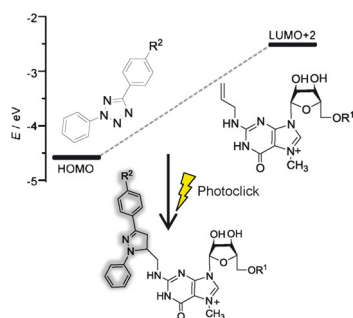
F. Sibbel, C. G. Daniliuc, A. Studer*

2,2'-Bis-substituted Biphenyls by the Addition of Nucleophiles to Benzyne Followed by In Situ Oxidative Homocoupling

Three σ -bonds in one pot! Mg-anilides and -thiolates readily add to the reactive triple bond of benzyne to form an aryl-Grignard intermediate. In situ oxidative homocoupling of this species using Cu^{II} and dioxygen leads to 2,2'-bis-substituted biphenyls with interesting crystal structures



X = N, S
Eur. J. Org. Chem.
DOI: 10.1002/ejoc.201500456



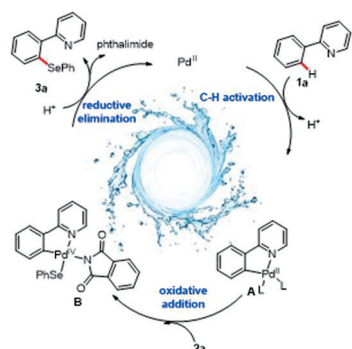
ChemistryOpen
DOI: 10.1002/open.201402104

RNA Labeling

D. Stummer, C. Herrmann,* A. Rentmeister*

Quantum Chemical Calculations and Experimental Validation of the Photoclick Reaction for Fluorescent Labeling of the 5' cap of Eukaryotic mRNAs

Clicking with mRNA! Bioorthogonal click reactions are powerful tools to specifically label biomolecules in living cells. This joint theoretical and experimental study shows that an *N*-allyl-modified 5' cap found in mRNA can be reacted with tetrazoles in a photoclick reaction. The combination of enzymatic allylation and photoclick chemistry generates a turn-on fluorophore specifically at the 5' cap found in eukaryotic mRNAs.



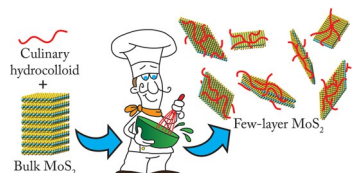
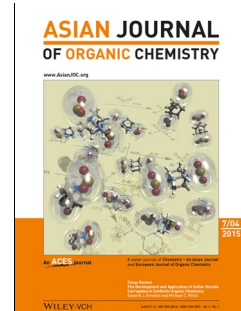
Asian J. Org. Chem.
DOI: 10.1002/ajoc.201500192

C–H activation

W. Jin, P. Zheng, W.-T. Wong,* G.-L. Law*

Efficient Palladium-Catalyzed Direct C–H Phenylselenylation of (Hetero)Arenes in Water

Soft sel: An efficient palladium-catalyzed direct phenylselenation of (hetero)arenes in water has been realized. This method affords a more direct route for synthesizing organic selenides. The present catalytic system is quite simple without any need for an external oxidant, surfactant, or other additive. A variety of diaryl selenides with high functional group tolerance have been obtained in good to excellent yields and regioselectivity.



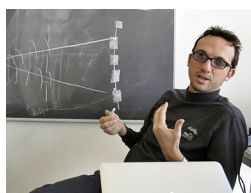
ChemNanoMat
DOI: 10.1002/cnma.201500022

2D Materials

S. Ravula, J. B. Essner, G. A. Baker*

Kitchen-Inspired Nanochemistry: Dispersion, Exfoliation, and Hybridization of Functional MoS₂ Nanosheets Using Culinary Hydrocolloids

Green a-peel: Edible culinary hydrocolloids proved to be highly effective agents for exfoliating from bulk, crystalline material few-layered MoS₂ nanosheets, which served as scaffolds for in situ gold nanoparticle generation, creating hybrid nanocatalysts.



ChemViews magazine
DOI: 10.1002/chemv.201500036

Light

V. Köster

Snapshot of Light as Both a Particle and Wave

It is well known that light can behave as a particle and as a wave, but it took until 2015 to capture this dual behavior of light in an image that simultaneously shows quantization and interference. Fabrizio Carbone, École polytechnique fédérale de Lausanne (EPFL), Switzerland, talked to Vera Köster about the research behind the picture.

