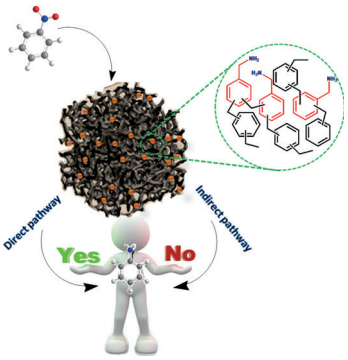
On these pages, we feature a selection of the excellent work that has recently been published in our sister journals. If you are reading these pages on a computer, click on any of the items to read the full article. Otherwise please see the DOIs for easy online access through Wiley Online Library.

Hydrogenation

J. Mondal,* S. K. Kundu, W. K. Hung Ng, R. Singuru, P. Borah, H. Hirao,* Y. Zhao,* A. Bhaumik*

Fabrication of Ruthenium Nanoparticles in Porous Organic Polymers: Towards Advanced Heterogeneous Catalytic Nanoreactors

This way or that? A strategy has been adopted to develop a benzene–benzylamine-1 (BBA-1) porous organic polymer (POP) by Friedel–Crafts alkylation. Ru@POP behaves as a heterogeneous catalytic nanoreactor for the catalytic transfer hydrogenation of nitroarenes at RT through a direct reaction pathway, as supported by DFT computational calculations (see figure).



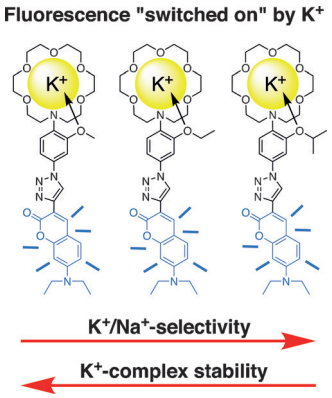
Chem. Eur. J.
DOI: **10.1002/chem.201504055**

Heterogeneous Catalysis

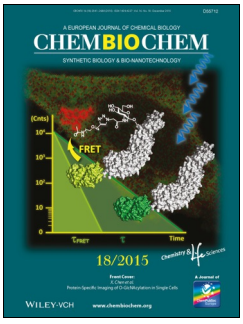
T. Schwarze, R. Schneider, J. Riemer, H.-J. Holdt*

A Highly K^+-Selective Fluorescent Probe – Tuning the K^+-Complex Stability and the K^+/Na^+ Selectivity by Varying the Lariat-Alkoxy Unit of a Phenylaza[18]crown-6 Ionophore

Ready, Set, Go! Herein, we found in a set of π-conjugated phenylaza[18]crown-6-1,2,3-triazol-fluoroionophores, which possess in *ortho* position of the aniline moiety an alkoxy group, an enhanced K^+/Na^+ selectivitiy with increasing steric hindrance of the alkoxy group (MeO < EtO < *i*PrO) and a decrease of the K^+-complex stability.



Chem. Asian J.
DOI: **10.1002/asia.201500956**

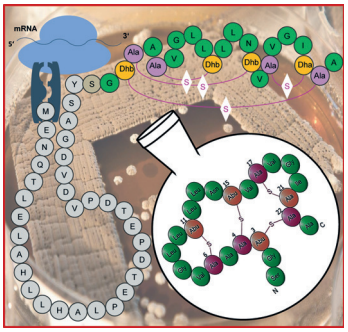


Natural Products

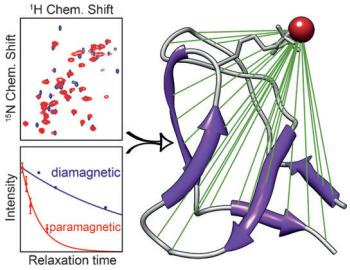
D. Iftime, M. Jasyk, A. Kulik, J. F. Imhoff, E. Stegmann, W. Wohlleben, R. D. Süssmuth, T. Weber*

Streptocollin, a Type IV Lanthipeptide Produced by *Streptomyces collinus* Tü 365

Getting hands on a class IV lanthipeptide: The type IV lanthipeptide streptocollin was identified by genome mining in *Streptomyces collinus* Tü 365. The pathway was engineered and heterologously expressed thereby allowing the preparative isolation of streptocollin in yields of up to 10 mg L^{-1}.



ChemBioChem
DOI: **10.1002/cbic.201500377**

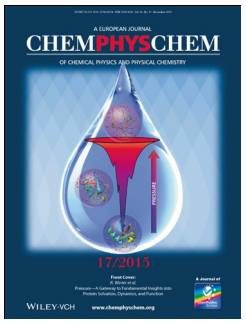


Structure Determination

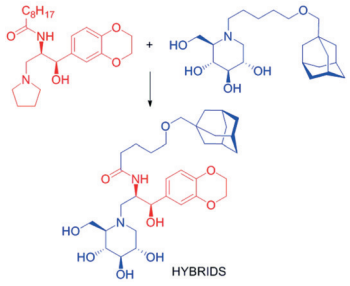
P. Rovó, K. Grohe, K. Giller, S. Becker, R. Linser*

Proton Transverse Relaxation as a Sensitive Probe for Structure Determination in Solid Proteins

Paramagnetic eye: A single covalently attached paramagnetic tag provides long distance information for high resolution solid-state NMR structure determination.



ChemPhysChem
DOI: **10.1002/cphc.201500799**

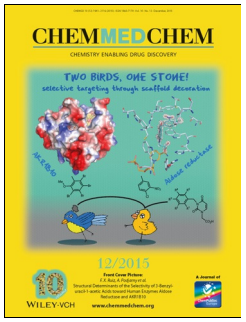


Medicinal Chemistry

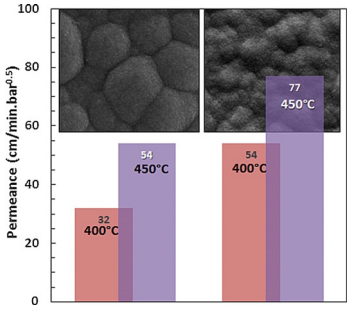
R. J. B. H. N. van den Berg, E. R. van Rijssel, M. J. Ferraz, J. Houben, A. Strijland, W. E. Donker-Koopman, T. Wennekes, K. M. Bonger, A. B. T. Ghisaidoobe, S. Hoogendoorn, G. A. van der Marel, J. D. C. Codée, H. S. Overkleeft,* J. M. F. G. Aerts*

Synthesis and Evaluation of Hybrid Structures Composed of Two Glucosylceramide Synthase Inhibitors

Taking the best of both: Two established glucosylceramide synthase (GCS) inhibitors were merged via convergent synthesis to obtain hybrid compounds. Members of this 39-compound library have characteristics of both parent GCS inhibitors. No new GCS inhibitors were established, but a potent (200 nM) acid glucosylceramidase (GBA1) inhibitor was identified. This adamantanemethyloxypenanoic acid pyrrolidene-substituted derivative of eliglustat can serve as a lead for further biomedical development of selective GBA1 modulators.



ChemMedChem
DOI: **10.1002/cmdc.201500407**

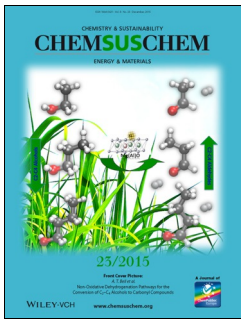


Hydrogen Transfer

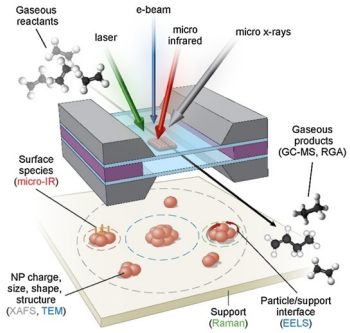
S. Abate, G. Giorgianni, S. Gentiluomo, G. Centi,* S. Perathoner

Enhanced Hydrogen Transport over Palladium Ultrathin Films through Surface Nanostructure Engineering

Nano change, big impact: Palladium ultrathin films having different surface nanostructures play a large role in changing the hydrogen-transfer mechanism. Understanding this process to make tailored surfaces is an important aspect leading to the development of improved membranes for new integrated process architectures with enhanced sustainability.



ChemSusChem
DOI: **10.1002/cssc.201501143**

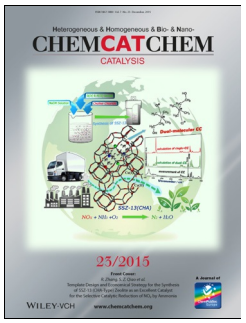


Operando Characterization

S. Zhao, Y. Li, E. Stavitski, R. Tappero, S. Crowley, M. J. Castaldi, D. N. Zakharov, R. G. Nuzzo, A. I. Frenkel,* E. A. Stach*

Operando Characterization of Catalysts through use of a Portable Microreactor

Know your catalyst: A portable microreactor is exploited to characterize working catalysts using a wide variety of relevant analytical probes. It is shown that this approach allows characterization of (1) the structure and electronic properties of the metal catalysts, (2) the nature of the support, and (3) the catalytic chemistry. The approach is shown to be general, and allows explicit links to be made between different characterization methods.



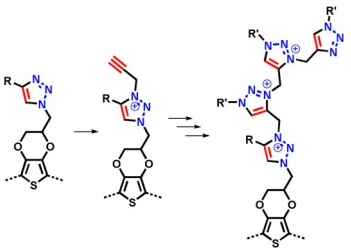
ChemCatChem
DOI: **10.1002/cctc.201500688**

Surface Chemistry

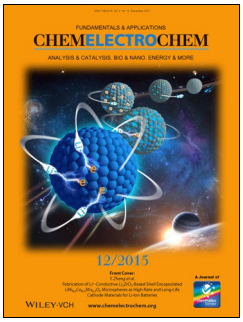
G. Godeau, T. Darmanin, F. Guittard*

Step-by-Step Layer-by-Layer Assembly Using 1,2,3-Triazole as a Platform for Controlled Multicharged and Multifunctional Coatings

One step at a time: Multicharged and multifunctional coatings can now be prepared by layer-by-layer assembly and by using click chemistry. The charged moieties are due to the presence of triazolium groups, and various functional groups can be introduced in each layer (see scheme).



ChemPlusChem
DOI: **10.1002/cplu.201500214**

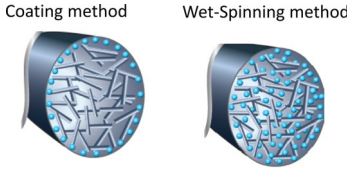


Microelectrodes

C. Mateo-Mateo, A.-S. Michardière, S. Gounel, I. Ly, J. Rouhana, P. Poulin,* N. Mano*

Wet-Spun Bioelectronic Fibers of Imbricated Enzymes and Carbon Nanotubes for Efficient Microelectrodes

A special arrangement: A scalable, single-step, wet-spinning approach that allows the fabrication of microfibers into which enzymes and carbon nanotubes are imbricated in the core of the fiber is reported. A sevenfold increase in current density and a significantly improved stability can be achieved by using the present protocol compared to a usual surface-coating method.



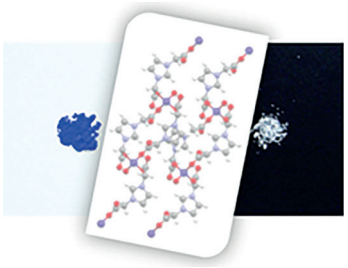
ChemElectroChem
DOI: **10.1002/celc.201500371**

Strategy for MOF Synthesis

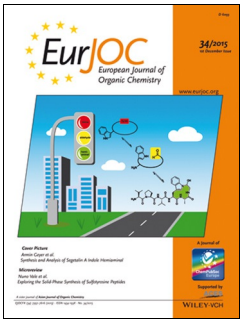
P. Farger, R. Guillot, F. Leroux, N. Parizel, M. Gallart, P. Gilliot, G. Rogez, E. Delahaye,* P. Rabu*

Imidazolium Dicarboxylate Based Metal–Organic Frameworks Obtained by Solvo-Ionothermal Reaction

The synthesis and characterization of a metal–organic framework (MOF) based on tetrahedral Co^{2+} ions and imidazolium dicarboxylate is reported. The Co^{2+} MOF is compared to the isostructural Zn^{2+} MOF.



Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.201500825**

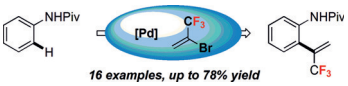


Fluorinated Molecules

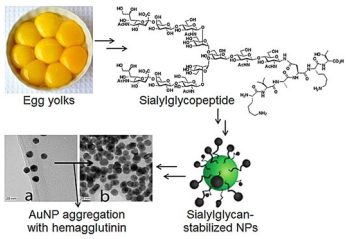
Q. Zhao, T. Besset, T. Poisson, J.-P. Bouillon,* X. Pannecoucke

Palladium-Catalysed Synthesis of α-(Trifluoromethyl)styrenes by Means of Directed C–H Bond Functionalization

The first introduction of 2-bromo-3,3,3-trifluoropropene (BTP) by directed C–H bond functionalization is described. The products were obtained in good yields, and the method represents a straightforward route to α-(trifluoromethyl)styrenes.



Eur. J. Org. Chem.
DOI: **10.1002/ejoc.201501217**



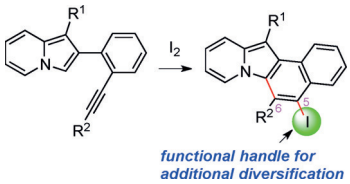
Nanoparticle Sensors

V. Poonthiyil, P. T. Nagesh, M. Husain, V. B. Golovko,* A. J. Fairbanks*

Gold Nanoparticles Decorated with Sialic Acid Terminated Bi-antennary N-Glycans for the Detection of Influenza Virus at Nanomolar Concentrations

A golden egg yolk sensor: Full-length sialic acid terminated complex bi-antennary N-glycans, isolated from egg yolks, were used to develop glycogold nanoparticles for the colorimetric and dynamic light scattering detection of influenza virus particles and hemagglutinin. Particle sensing was selective for a virus strain that binds α(2→6)-linked sialic acid terminated glycans.

ChemistryOpen
DOI: **10.1002/open.201500109**



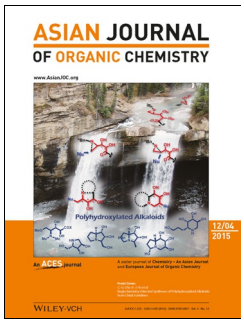
Cyclization Reactions

Y. Jung, I. Kim*

Synthesis of 6-Aryl-5-iodobenzo[*e*]pyrido[1,2-*a*]indoles by 6-*endo*-*dig* Iodocyclization

Give me a ring! A range of 6-aryl-5-iodobenzo[*e*]pyrido[1,2-*a*]indoles were regioselectively synthesized by mild iodine-mediated cyclization. Further molecular diversity was achieved by reaction of the 5-iodo group in a Pd-catalyzed reaction.

Asian J. Org. Chem.
DOI: **10.1002/ajoc.201500423**



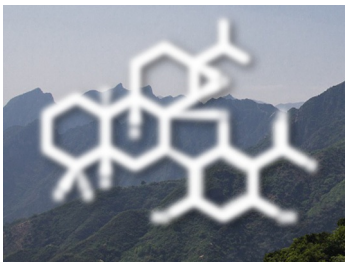
Unprotected Nanoparticles

L. Kacenauskaite, A. A. Swane, J. J. K. Kirkensgaard, M. Fleige, S. Kunz, T. Vosch,* M. Arenz*

Synthesis Mechanism and Influence of Light on Unprotected Platinum Nanoparticles Synthesis at Room Temperature

The influence of light: Exposing a reaction mixture of H_2PtCl_6-EG (hexachloroplatinic acid dissolved in ethylene glycol) and NaOH-EG (sodium hydroxide dissolved in ethylene glycol) to daylight leads to the formation of well-defined unprotected Pt nanoparticles, whereas no particles are formed in the dark.

ChemNanoMat
DOI: **10.1002/cnma.201500118**



Natural Products

D. Bradley

Chlorabietols – Novel Compounds From Rare Plants

Chinese researchers have reported an entirely novel group of compounds, chlorabietols, found in a rare plant in the remote mountain regions of China. These natural products have a unique and previously unseen chemical skeleton, and show activity as inhibitors of a negative regulator of the insulin signaling pathway.

ChemViews magazine
DOI: **10.1002/chemv.201500097**