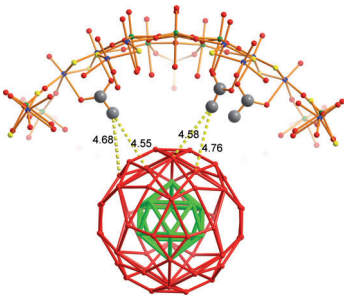
Auf diesen Seiten weisen wir auf wichtige aktuelle Beiträge in unseren Schwesterzeitschriften hin. Wenn Sie die Seiten online lesen, dann können Sie die Artikel mit einem Klick direkt aufrufen, ansonsten sind sie durch Eingabe der DOIs über Wiley Online Library leicht online zugänglich.

Nanocapsules

A. Müller,* S. Garai, C. Schäffer, A. Merca, H. Bögge, A. J. M. Al-Karawi, T. K. Prasad

Water Repellency in Hydrophobic Nanocapsules—Molecular View on Dewetting

Get away: Water molecules in spherical hydrophobic metal oxide capsules are repelled from the hydrophobic internal ligand walls ("water's response to the fear of water") and form hydrogen-bonded spherical shells.



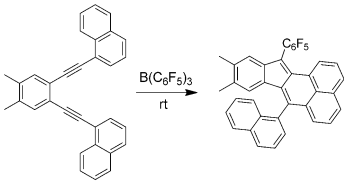
Chem. Eur. J.
DOI: **10.1002/chem.201402216**

Annulation

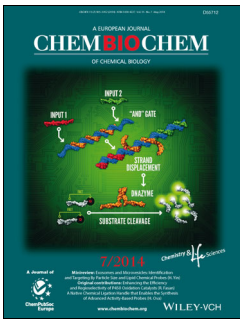
C. Chen, M. Harhausen, A. Fukazawa, S. Yamaguchi,* R. Fröhlich, C. G. Daniliuc, J. L. Petersen, G. Kehr, G. Erker*

The $B(C_6F_5)_3$ Boron Lewis Acid Route to Arene-Annulated Pentalenes

Give it some closure: Upon treatment with, for example, $B(C_6F_5)_3$ 1,2-bis(arylethynyl)benzenes undergo a series of ring-closure reactions to give extended π-systems at annulated planar σ-frameworks.



Chem. Asian J.
DOI: **10.1002/asia.201400096**

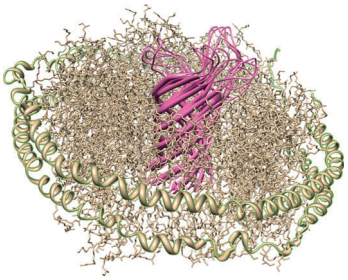


Structural Biology

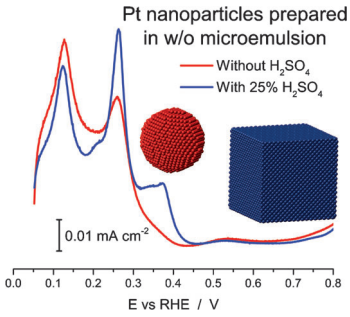
L. Sušac, R. Horst, K. Wüthrich*

Solution-NMR Characterization of Outer-Membrane Protein A from *E. coli* in Lipid Bilayer Nanodiscs and Detergent Micelles

NMR studies of OmpA in nanodiscs yielded structural data on this *E coli* outer membrane protein closely similar to those seen in three different detergent micelles. The result validates the use of detergent micelles for structural studies of β-barrel membrane proteins and supports the conjecture that the conformational dynamics of OmpA observed for the reconstituted protein are related to its physiological function.



ChemBioChem
DOI: **10.1002/cbic.201300729**



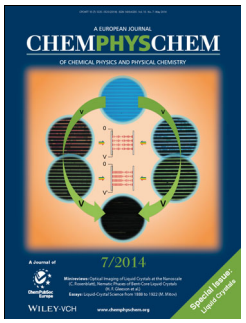
ChemPhysChem
DOI: **10.1002/cphc.201400056**

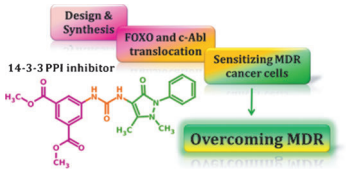
Electrocatalysis

R. A. Martínez-Rodríguez, F. J. Vidal-Iglesias, J. Solla-Gullón, C. R. Cabrera, J. M. Feliu*

Synthesis and Electrocatalytic Properties of H_2SO_4-Induced (100) Pt Nanoparticles Prepared in Water-in-Oil Microemulsion

Shapewear for nanoparticles: Sulfuric acid is used as a surface modifier to synthesize (100) Pt nanoparticles (NPs) by using a water-in-oil microemulsion method. The electrocatalytic properties of the resulting cubic-like Pt NPs are evaluated towards ammonia and CO electro-oxidations.





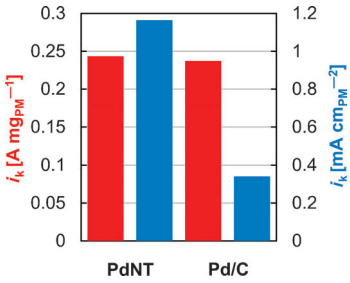
ChemMedChem
DOI: **10.1002/cmdc.201400044**

Overcoming Drug Resistance

M. Mori, G. Vignaroli, Y. Cau, J. Dinić, R. Hill, M. Rossi, D. Colecchia, M. Pešić, W. Link, M. Chiariello, C. Ottmann, M. Botta*

Discovery of 14-3-3 Protein–Protein Interaction Inhibitors that Sensitize Multidrug-Resistant Cancer Cells to Doxorubicin and the Akt Inhibitor GSK690693

Pièce de résistance! Multidrug resistance (MDR) is the main obstacle toward effective anticancer therapy. Herein we report the discovery of two small-molecule 14-3-3 protein–protein interaction inhibitors that promote the translocation of c-Abl and FOXO pro-apoptotic factors into the nucleus and sensitize MDR cancer cells to doxorubicin and the pan-Akt inhibitor GSK690693.



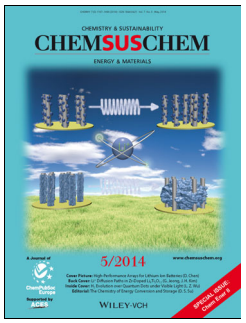
ChemSusChem
DOI: **10.1002/cssc.201400129**

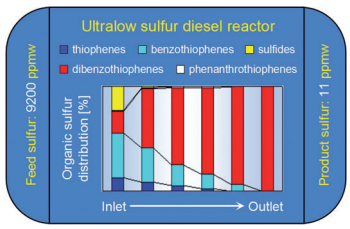
Oxygen Reduction

S. M. Alia, K. Duong, T. Liu, K. Jensen, Y. Yan*

Palladium and Gold Nanotubes as Oxygen Reduction Reaction and Alcohol Oxidation Reaction Catalysts in Base

Pd ORR Au: Palladium nanotubes (PdNTs) and gold nanotubes (AuNTs) are studied as oxygen reduction reaction (ORR) and alcohol oxidation reaction catalysts in base. PdNTs and AuNTs produce ORR area activities that are 2.9 and 2.3 times greater than those produced by Pd/C and Au/C, respectively. The PdNTs further show improved methanol, ethanol, and ethylene glycol oxidation activity in comparison to nanoparticle catalysts.





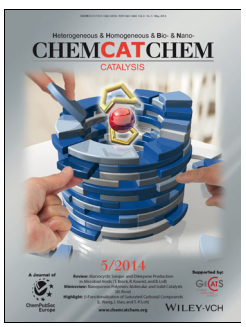
ChemCatChem
DOI: **10.1002/cctc.201402028**

Diesel Reactor

T. V. Choudhary,* K. Gong, P. Ellison, A. Subbiah

A Glimpse into the Molecular Journey inside an Ultralow Sulfur Diesel Reactor

Keeping on the ultralow: Quantitative information about the journey of sulfur molecules inside an operating ultralow sulfur diesel reactor is provided. This information coupled with other new insights obtained under realistic industrial conditions is expected to significantly increase the effectiveness of future studies aimed at increasing the efficiency of the ultralow sulfur diesel process. ppmw = parts per million by weight

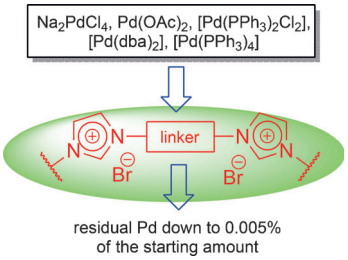


Supported Catalysts

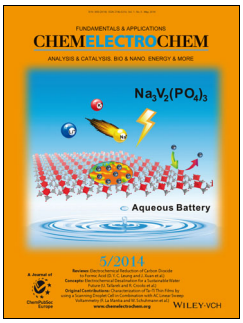
R. Buscemi, F. Giacalone, S. Orecchio, M. Gruttadauria*

Cross-Linked Imidazolium Salts as Scavengers for Palladium

Going on a scavenger hunt: Efficient removal of residual palladium from active pharmaceutical ingredients (APIs) and API intermediates is becoming an increasing problem and new efficient scavengers are being sought. Cross-linked imidazolium bromide salt based materials are easily obtained and show good performances as palladium scavengers (see picture).



ChemPlusChem
DOI: **10.1002/cplu.201300361**

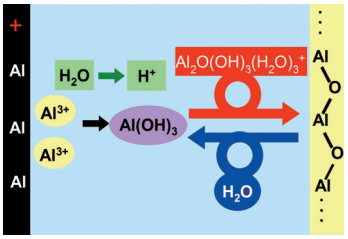


Ordered Nanoarrays

X. Fan, L. Liao, Y. Chang, Z. Liu, J. Du, C. Tao*

Nonlinear Self-Organizing Kinetics in the Electrochemical Growth of Alumina Nanotube Arrays

Organizational hazard: Self-organizing kinetics during the electrosynthesis of porous anodic alumina is investigated. The ordered nanoarray forms through the self-organizing condensed cations in the hydroxide colloid, rather than the traditional pitting-corrosion mechanism. The periodicity of both the nanoarray and the current oscillation are dominated by a nonlinear reaction path, and the dynamic Equations of which are established and analyzed.



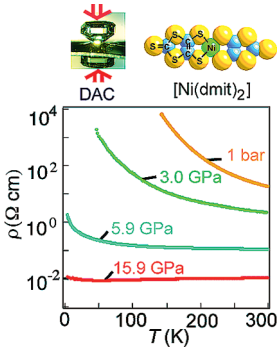
ChemElectroChem
DOI: **10.1002/celc.201400010**

Molecular Metals

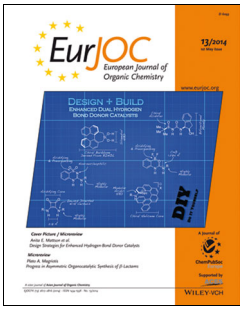
H. Cui,* T. Tsumuraya, T. Miyazaki, Y. Okano, R. Kato*

Pressure-Induced Metallic Conductivity in the Single-Component Molecular Crystal [Ni(dmit)$_2$]

Four-probe electrical resistivity measurements on the single-component molecular crystal [Ni(dmit)$_2$] (dmit = 1,3-dithiole-2-thione-4,5-dithiolate) up to 25.5 GPa by using a diamond anvil cell (DAC) technique with high-quality hydrostatic conditions reveal a metallic state above 15.9 GPa. Ab initio DFT calculations and tight-binding band calculations indicate a 3D Fermi surface under high pressure, which explains the metallic state.



Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.201400130**

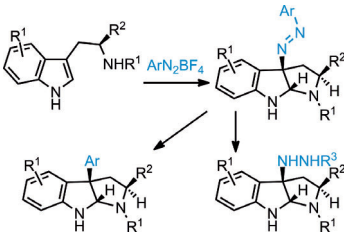


Heterocyclic Synthesis

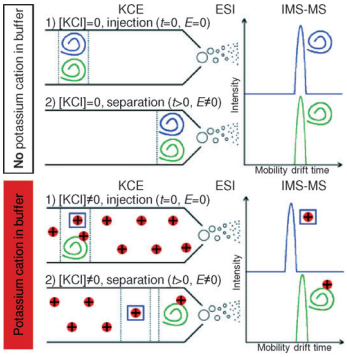
D. E. Stephens, O. V. Larionov*

Straightforward Access to Hexahydropyrrolo[2,3-*b*]indole Core by a Regioselective C3-Azo Coupling Reaction of Arenediazonium Compounds with Tryptamines

A new method for construction of the pyrroloindoline framework by way of arenediazonium-triggered cyclization of tryptamines allows for direct and efficient access to a synthetically important structural motif. The reaction is the first example of diazonium-induced 1,2-diamination.



Eur. J. Org. Chem.
DOI: **10.1002/ejoc.201402088**



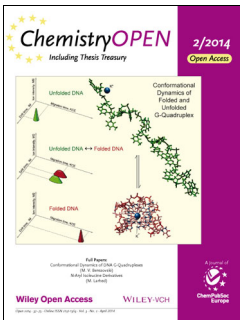
ChemistryOpen
DOI: **10.1002/open.201400002**

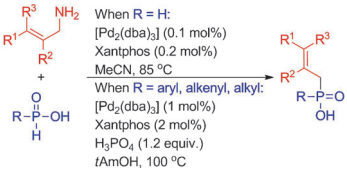
DNA Folding

G. G. Mironov, V. Okhonin, N. Khan, C. M. Clouthier, M. V. Berezovski*

Conformational Dynamics of DNA G-Quadruplex in Solution Studied by Kinetic Capillary Electrophoresis Coupled On-line with Mass Spectrometry

Combining forces! Kinetic capillary electrophoresis is coupled on-line with mass spectrometry (KCE-MS) to study conformational dynamics of DNA G-quadruplexes in solution. Peak's shift and its widening in KCE help measure rate and equilibrium constants; and ion mobility spectrometry (IMS) provides relative sizes, absolute molecular masses and stoichiometry.





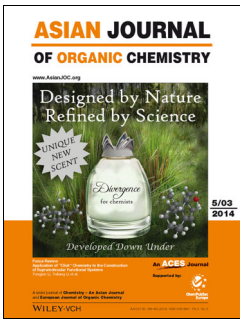
Asian J. Org. Chem.
DOI: **10.1002/ajoc.201402050**

Allylation

X.-S. Wu, M.-G. Zhou, Y. Chen, S.-K. Tian*

Catalytic Allylation of Hypophosphorous Acid and *H*-Phosphinic Acids with Primary Allylic Amines

Call in the ally-ls: Allylation reactions of hypophosphorous acid and *H*-phosphinic acids with primary allylic amines in the presence of a palladium catalyst have been developed (see scheme). Importantly, the reactions are highly atom-economic and yield ammonia as the sole byproduct. dba = dibenzylideneacetone.



ChemViews magazine
DOI: **10.1002/chemv.201400029**

Chemistry Communication

V. Köster

Make Chemistry More Attractive

Dr. Thomas Geelhaar, Merck, became President of the Gesellschaft Deutscher Chemiker (GDCh; German Chemical Society) in January 2014. He spoke with ChemViews Magazine about his aims for his presidency. One major focus is on improving the perception of chemistry in society by enhanced communication and by promoting a better understanding of chemistry.