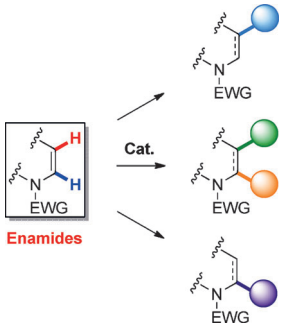
On these pages, we feature a selection of the excellent work that has recently been published in our sister journals. If you are reading these pages on a computer, click on any of the items to read the full article. Otherwise please see the DOIs for easy online access through Wiley Online Library.

C–H Functionalization

N. Gigant, L. Chausset-Boissarie, I. Gillaizeau*

Direct Metal-Catalyzed Regioselective Functionalization of Enamides

Useful nitrogen-containing heterocycles can be rapidly synthesized from metal-catalyzed regioselective functionalization of enamides. This review discloses the progress made in the development of the direct C–H functionalization of enamides involving efficient and atom-economical routes (see scheme; EWG = electron-withdrawing group).



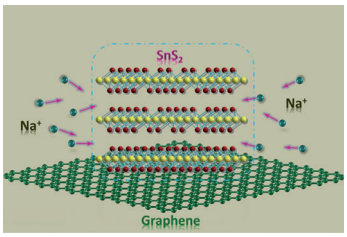
Chem. Eur. J.
DOI: **10.1002/chem.201402070**

Anode Materials

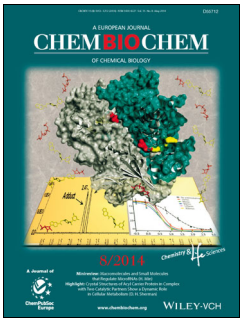
X. Xie, D. Su, S. Chen, J. Zhang, S. Dou, G. Wang*

SnS_2 Nanoplatelet@Graphene Nanocomposites as High-Capacity Anode Materials for Sodium-Ion Batteries

Just tin time! SnS_2 nanoplatelets were incorporated with graphene by using a facile hydrothermal method. Graphene nanosheets act as a heterogeneous dispersing agent to prevent the aggregation of SnS_2 nanoplatelets and provide electrically conductive networks, which lead to an improved electrochemical performance for sodium-ion storage (see figure).



Chem. Asian J.
DOI: **10.1002/asia.201400018**

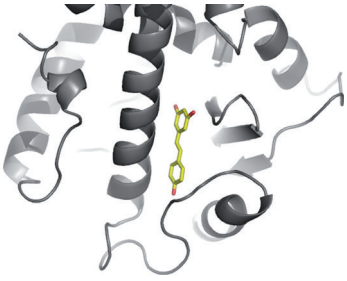


Resveratrol

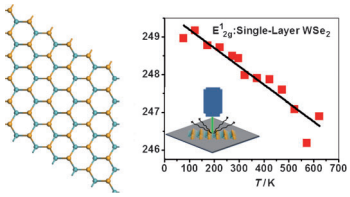
E. Calleri, G. Pochetti, K. S. S. Dossou, A. Laghezza, R. Montanari, D. Capelli, E. Prada, F. Loiodice, G. Massolini, M. Bernier, R. Moaddel*

Resveratrol and Its Metabolites Bind to PPARs

More red wine, please: Resveratrol, a signaling protein modulator, can exert off-target effects involving peroxisome proliferator-activated receptors (PPARs). Results from chromatographic and isothermal titration calorimetry experiments indicate that resveratrol and its metabolites bind PPARγ directly, but only resveratrol interacts with PPARα, thus suggesting a new pattern of receptor–ligand recognition.



ChemBioChem
DOI: **10.1002/cbic.201300754**



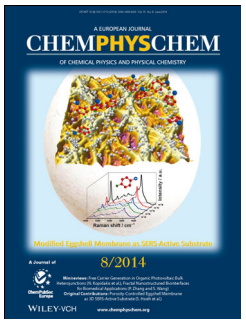
Raman Spectroscopy

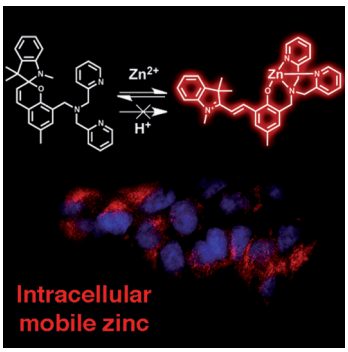
D. J. Late, S. N. Shirodkar, U. V. Waghmare, V. P. Dravid, C. N. R. Rao*

Thermal Expansion, Anharmonicity and Temperature-Dependent Raman Spectra of Single- and Few-Layer $MoSe_2$ and WSe_2

Special effects in 2D: The temperature-dependent Raman spectra of single- and few-layer $MoSe_2$ and WSe_2 in the 77–700 K range are reported. Linear variation is observed in the peak positions and widths of the bands arising from contributions of anharmonicity and thermal expansion.

ChemPhysChem
DOI: **10.1002/cphc.201400020**





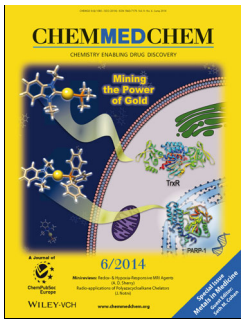
Metals in Medicine

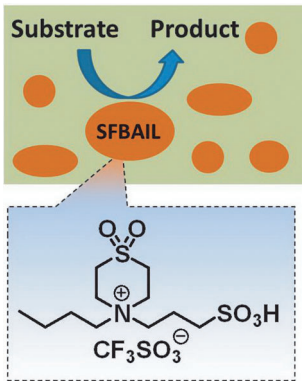
P. Rivera-Fuentes, S. J. Lippard*

SpiroZin1: A Reversible and pH-Insensitive, Reaction-Based, Red-Fluorescent Probe for Imaging Biological Mobile Zinc

Seeing red! A red-emitting and pH-insensitive probe for mobile zinc is reported. The sensing mechanism is based on a reversible ring-opening reaction that is selectively induced by Zn^{2+}. The biocompatibility of this probe was validated by fluorescence microscopy in live cells.

ChemMedChem
DOI: **10.1002/cmdc.201400014**





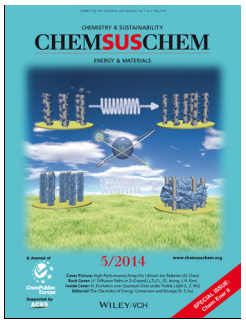
Solvents

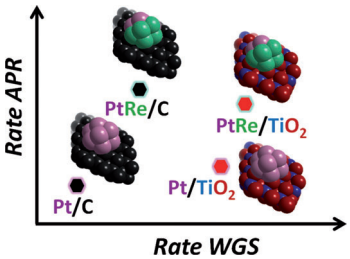
A. Taheri, X. Pan, C. Liu, Y. Gu*

Brønsted Acid Ionic Liquid as a Solvent-Conserving Catalyst for Organic Reactions

Brains not Brønsted: Sulfonyl-containing ammonium-based Brønsted acid ionic liquids (ILs) are prepared and used as liquid heterogeneous catalysts for organic reactions under solvent-free conditions. The sulfonyl group endowed these ILs with unique macroscopic phase heterogeneity in the reaction system, ensuring outstanding catalytic activities of the ILs. These catalytic systems are applicable in a wide range of acid-catalyzed reactions.

ChemSusChem
DOI: **10.1002/cssc.201402220**





Glycerol Reforming

A. Ciftci, S. Eren, D. A. J. M. Ligthart, E. J. M. Hensen*

Platinum–Rhenium Synergy on Reducible Oxide Supports in Aqueous-Phase Glycerol Reforming

Re as a promoter, TiO_2 too: Pt supported on TiO_2 exhibits the highest activity in aqueous-phase reforming (APR) of glycerol relative to Pt supported on CeO_2, $CeZrO_2$, ZrO_2, and activated carbon. Re promotion increases the rates of C–O bond cleavage and water gas shift (WGS) reaction and is least pronounced for Pt/TiO_2, as the titania support already promotes dehydration and WGS steps.

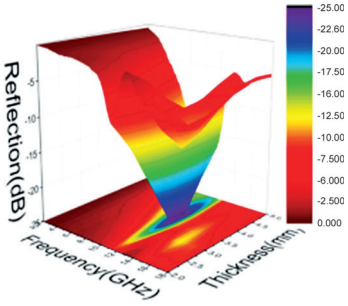
ChemCatChem
DOI: **10.1002/cctc.201301096**

Organic–Inorganic Composites

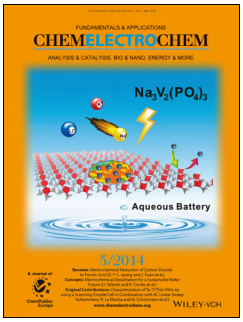
G.-S. Wang,* Y. Wu, Y.-Z. Wei, X.-J. Zhang, Y. Li, L.-D. Li, B. Wen, P.-G. Yin, L. Guo,* M.-S. Cao*

Fabrication of Reduced Graphene Oxide (RGO)/Co_3O_4 Nanohybrid Particles and a RGO/Co_3O_4/Poly(vinylidene fluoride) Composite with Enhanced Wave-Absorption Properties

Soaking it up: RGO/Co_3O_4 nanohybrid particles have been successfully fabricated by using an in situ growth approach under mild wet-chemical conditions (see scheme). From this, RGO/Co_3O_4/poly(vinylidene fluoride) composites with excellent absorption properties were obtained and characterized.



ChemPlusChem
DOI: **10.1002/cplu.201300345**

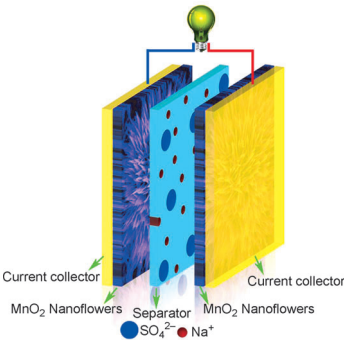


Supercapacitors

W. Li, K. Xu, B. Li, J. Sun, F. Jiang, Z. Yu, R. Zou,* Z. Chen, J. Hu*

MnO_2 Nanoflower Arrays with High Rate Capability for Flexible Supercapacitors

Great things in small packages: Large-area α-MnO_2 nanoflower arrays on flexible substrates are synthesized through a facial template-free electrochemical deposition process. These nanoflower arrays produce an enhanced electrochemical performance in the form of a high specific capacitance with remarkable rate capability and excellent cycling stability.



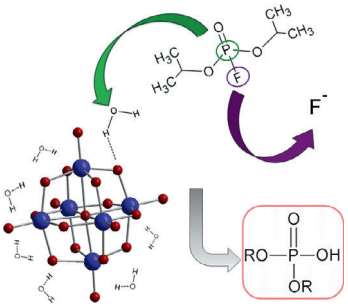
ChemElectroChem
DOI: **10.1002/celc.201400006**

Polyoxoniobates

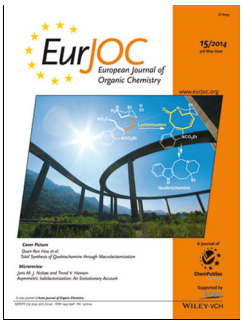
M. K. Kinnan, W. R. Creasy, L. B. Fullmer, H. L. Schreuder-Gibson, M. Nyman*

Nerve Agent Degradation with Polyoxoniobates

Polyoxometalates, like small pieces of metal oxide, can be dissolved or fixed on a surface to perform homogeneous or heterogeneous catalysis, respectively. Here we exploit the alkaline nature of polyoxoniobates to neutralize nerve agents in both solution and the solid state. Solution studies correlate reaction efficacy to the association of the dissolved polyoxoniobate with its counterions.



Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.201400016**

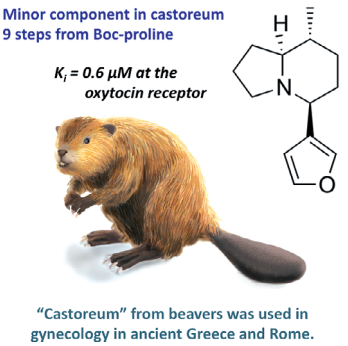


Beaver Alkaloid Synthesis

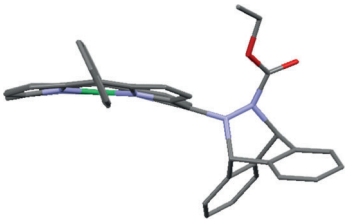
H. Seki, G. I. Georg*

Enantiospecific Synthesis and Biological Investigations of a Nuphar Alkaloid: Proposed Structure of a Castoreum Component

The enantiospecific synthesis and biological activities of a nuphar alkaloid have been described. Reliable and scalable chemistry was used to synthesize the alkaloid in nine steps, and an affinity to three central nervous system (CNS) receptors, including the oxytocin receptor, was found.



Eur. J. Org. Chem.
DOI: **10.1002/ejoc.201402232**



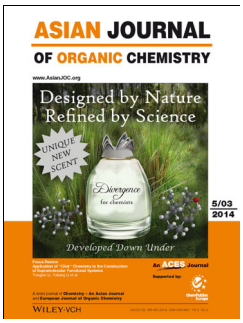
Asian J. Org. Chem.
DOI: **10.1002/ajoc.201402049**

Porphyrins

M. S. Goh, M. C. Pfrunder, J. C. McMurtrie, D. P. Arnold*

Combining the Diaza-Diels–Alder Reaction and Palladium-Catalyzed Aminations to Prepare Amino-Substituted Porphyrins

Who's the DADA? The diaza-Diels–Alder (DADA) reaction was combined with palladium-catalyzed amination of bromoporphyrins to generate aminated porphyrins. The X-ray crystal structure of an anthracene-derived aminoporphyrin nickel(II) complex confirms the sequence.



ChemViews magazine
DOI: **10.1002/chemv.201400035**

Peptidomimetics

M. Campbell

Small-Molecule Proteomimetic Inhibitors

Dr. Meghan Campbell, Associate Editor, *ChemBioChem*, spoke to Professor Andrew Wilson, University of Leeds, UK, about his recent article. Hypoxia-inducible factor 1 (HIF-1) plays a key role in the hypoxic response, thus making it a target for the development of new anticancer drugs. In *ChemBioChem*, Wilson reported the design of α-helix mimetics as inhibitors of the HIF-1α/p300 interaction.