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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.

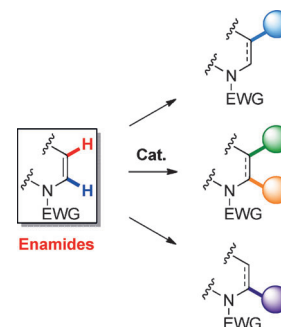


C–H Functionalization

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

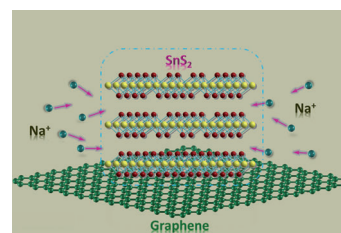


Anode Materials

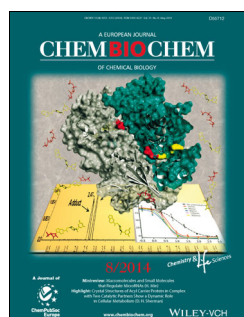
X. Xie, D. Su, S. Chen, J. Zhang, S. Dou, G. Wang*

SnS₂ Nanoplatelet@Graphene Nanocomposites as High-Capacity Anode Materials for Sodium-Ion Batteries

Just tin time! SnS₂ nanoplatelets were incorporated with graphene by using a facile hydrothermal method. Graphene nanosheets act as a heterogeneous dispersing agent to prevent the aggregation of SnS₂ 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

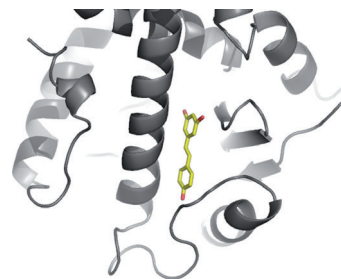


Resveratrol

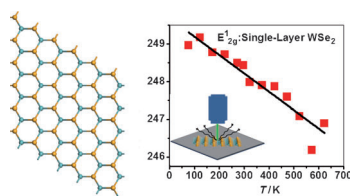
E. Calleri, G. Pochetti, K. S. S. Dossou, A. Laghezza, R. Montanari, D. Capelli, E. Prada, F. Liodice, G. Massolini, M. Bernier, R. Moaddel*

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 PPAR γ directly, but only resveratrol interacts with PPAR α , thus suggesting a new pattern of receptor–ligand recognition.



ChemBioChem
DOI: 10.1002/cbic.201300754



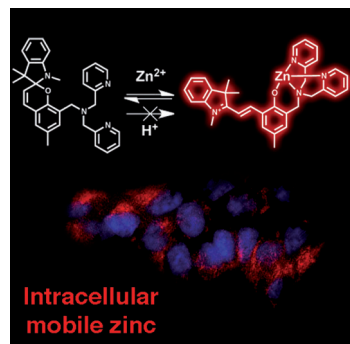
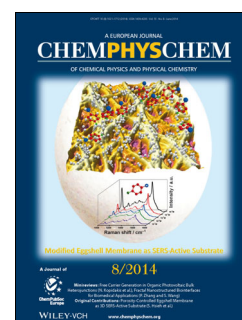
ChemPhysChem
DOI: 10.1002/cphc.201400020

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 MoSe₂ and WSe₂

Special effects in 2D: The temperature-dependent Raman spectra of single- and few-layer MoSe₂ and WSe₂ 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.



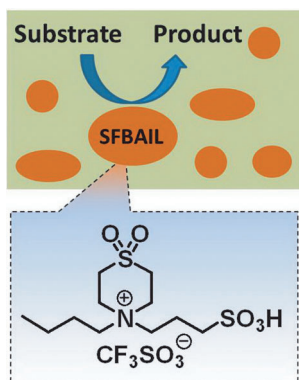
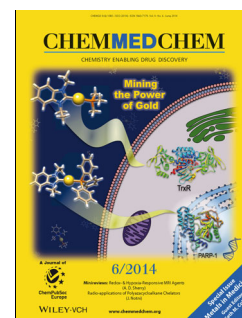
ChemMedChem
DOI: 10.1002/cmdc.201400014

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 Zn²⁺. The biocompatibility of this probe was validated by fluorescence microscopy in live cells.



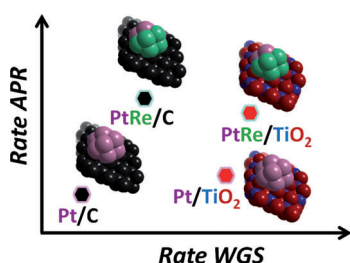
ChemSusChem
DOI: 10.1002/cssc.201402220

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.



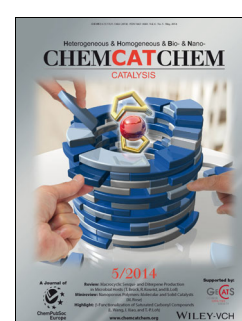
ChemCatChem
DOI: 10.1002/cctc.201301096

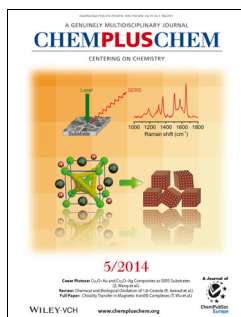
Glycerol Reforming

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, TiO₂ too: Pt supported on TiO₂ exhibits the highest activity in aqueous-phase reforming (APR) of glycerol relative to Pt supported on CeO₂, CeZrO₂, ZrO₂, 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/TiO₂, as the titania support already promotes dehydration and WGS steps.



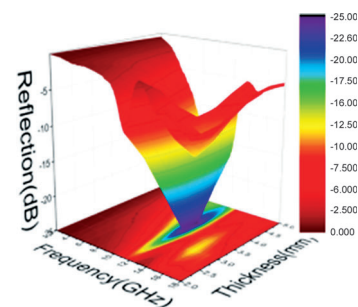


Organic-Inorganic Composites

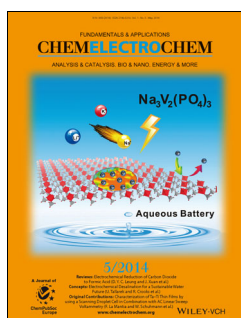
G.-S. Wang,* Y. Wu, Y.-Z. Wei, X.-J. Zhang, Y. Li, L.-D. Li, B. Wen, P.-G. Yin, L. Guo,* M.-S. Cao*

Fabrication of Reduced Graphene Oxide (RGO)/Co₃O₄ Nanohybrid Particles and a RGO/Co₃O₄/Poly(vinylidene fluoride) Composite with Enhanced Wave-Absorption Properties

Soaking it up: RGO/Co₃O₄ nanohybrid particles have been successfully fabricated by using an in situ growth approach under mild wet-chemical conditions (see scheme). From this, RGO/Co₃O₄/poly(vinylidene fluoride) composites with excellent absorption properties were obtained and characterized.



ChemPlusChem
DOI: 10.1002/cplu.201300345

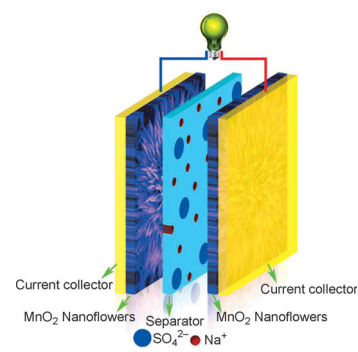


Supercapacitors

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

MnO₂ Nanoflower Arrays with High Rate Capability for Flexible Supercapacitors

Great things in small packages: Large-area α -MnO₂ 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/celec.201400006

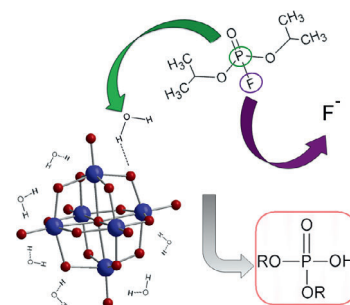


Polyoxoniobates

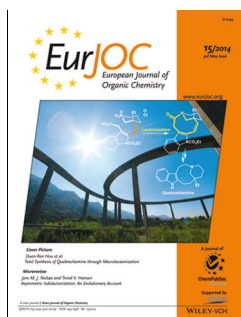
M. K. Kinnan, W. R. Creasy, L. B. Fullmer, H. L. Schreuder-Gibson, M. Nyman*

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.

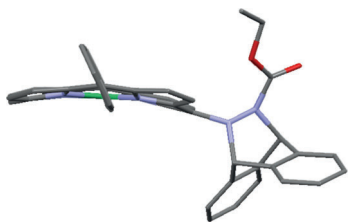
Minor component in castoreum
9 steps from Boc-proline

$K_i = 0.6 \mu\text{M}$ at the
oxytocin receptor



"Castoreum" from beavers was used in
gynecology in ancient Greece and Rome.

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



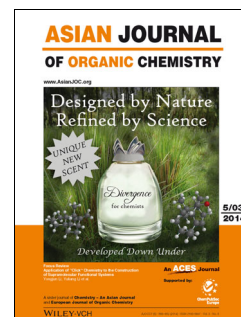
Asian J. Org. Chem.
DOI: 10.1002/ajoc.201402049

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 anti-cancer drugs. In *ChemBioChem*, Wilson reported the design of α -helix mimetics as inhibitors of the HIF-1 α /p300 interaction.

