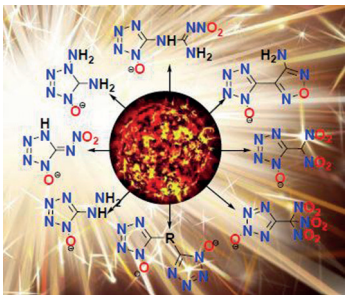
On these pages, we feature a selection of the excellent work that has recently been published in our sister journals. If you are reading these pages on a computer, click on any of the items to read the full article. Otherwise please see the DOIs for easy online access through Wiley Online Library.



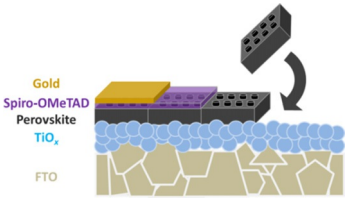
Chem. Eur. J.
DOI: **10.1002/chem.201600257**

Energetic Materials

P. He, J.-G. Zhang,* X. Yin, J.-T. Wu, L. Wu, Z.-N. Zhou, T.-L. Zhang

Energetic Salts Based on Tetrazole *N*-Oxide

Energetic engineering: This Review concerns recent advances in the syntheses, properties, and potential applications of ionic salts based on tetrazole *N*-oxide, which can be classified as a new family of highly energetic materials with improved performance. Novel tetrazole *N*-oxide salts are proposed that may be promising candidates for new energetic materials.



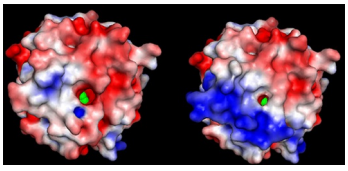
Chem. Asian J.
DOI: **10.1002/asia.201501379**

Hybrid Perovskites

A. Binek, I. Grill, N. Huber, K. Peters, A. G. Hufnagel, M. Handloser, P. Docampo, A. Hartschuh, T. Bein*

Control of Perovskite Crystal Growth by Methylammonium Lead Chloride Templating

Act now! The influence of chloride during the perovskite crystallization in planar heterojunction solar cells was investigated. It is shown that $MAPbCl_3$ crystallizes directly after the deposition of the starting solution and acts as a template for the formation of $MAPbI_3$. The figure shows the schematic architecture of a perovskite solar cell prepared via the slow solvent evaporation technique based on $PbCl_2$.



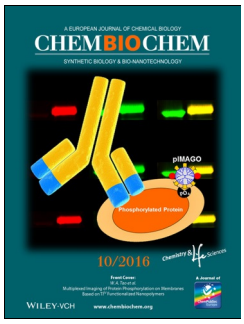
ChemBioChem
DOI: **10.1002/cbic.201600039**

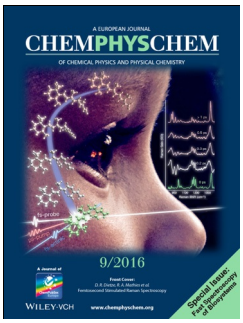
Bio-nanotechnology

K. J. Koßmann, C. Ziegler, A. Angelin, R. Meyer, M. Skoupi, K. S. Rabe, C. M. Niemeyer*

A Rationally Designed Connector for Assembly of Protein-Functionalized DNA Nanostructures

HOBbing proteins with DNA: Halo-based oligonucleotide binder (HOB, right) is an oligonucleotide-binder protein in which positively charged amino acids (blue) were incorporated around the active-site entry channel for the chlorohexyl ligand (green) of the self-ligating HaloTag protein (left). HOB fusion proteins bind to oligonucleotides and DNA origami with significantly improved reaction rates.



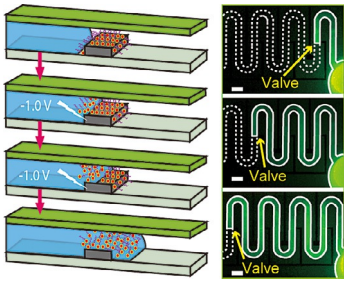


Microfluidic Devices

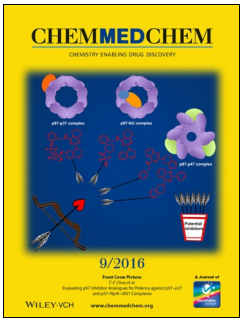
G. C. Biswas, T. Watanabe, E. T. Carlen, M. Yokokawa, H. Suzuki*

Switchable Hydrophobic Valve for Controlled Microfluidic Processing

A simple switchable hydrophobic valve consisting of a self-assembled monolayer on a platinum electrode is reported. The valve can be a necessary component in various microfluidic devices for controlling the routing of solutions, that is, timely injection, separation and merging of solutions in microchannels.



ChemPhysChem
DOI: **10.1002/cphc.201501015**

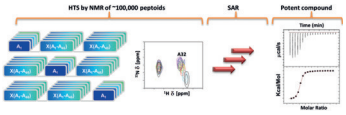


Antibacterial Agents

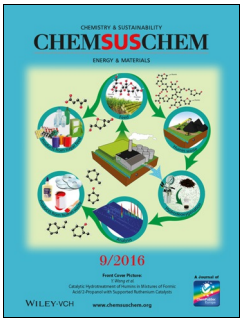
A. Bottini, B. Wu, E. Barile, S. K. De, M. Leone, M. Pellecchia*

High-Throughput Screening (HTS) by NMR Guided Identification of Novel Agents Targeting the Protein Docking Domain of YopH

HTS by NMR: High-throughput screening (HTS) by NMR is used to identify novel agents that can disrupt the protein–protein interactions between the *Yersinia* toxin YopH-NT and its cellular substrates. A novel agent was identified of the sequence Ac-F-pY-cPG-D-P-NH_2 (pY = phosphotyrosine; cPG = cyclopentyl glycine) with a K_d value against YopH-NT of 310 nM. The data reported further demonstrate the utility of the "HTS by NMR" approach in deriving novel peptide mimetics targeting protein–protein interactions.



ChemMedChem
DOI: **10.1002/cmdc.201500441**

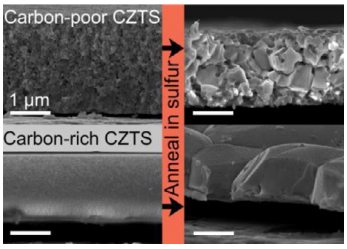


Solar Cells

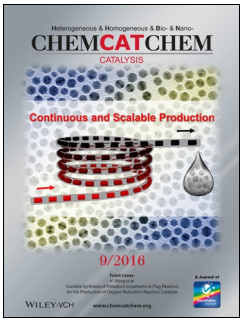
T. J. Huang, X. Yin, C. Tang, G. Qi, H. Gong*

Influence of Ligands on the Formation of Kesterite Thin Films for Solar Cells: A Comparative Study

Grains on film: Carbon-rich ligands are responsible for phase segregation, composition non-uniformity, and carbon-layer formation in carbon-rich Cu_2ZnSnS_4 films. Particularly, the carbon layer is a consequence of the reaction between oleylamine and sulfur, and mechanisms are proposed. The carbon layer has very poor electrical conductivity. The problems above are greatly reduced in carbon-poor Cu_2ZnSnS_4 films.



ChemSusChem
DOI: **10.1002/cssc.201600063**

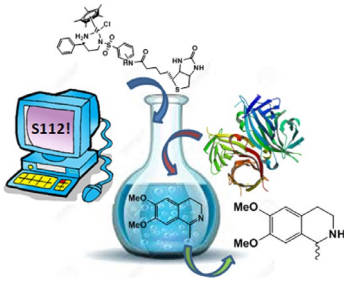


Biocatalysis

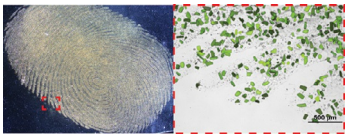
M. Pellizzoni, G. Facchetti, R. Gandolfi, M. Fusè, A. Contini, I. Rimoldi*

Evaluation of Chemical Diversity of Biotinylated Chiral 1,3-Diamines as a Catalytic Moiety in Artificial Imine Reductase

Biotinylated chiral 1,3-diamines: An efficient artificial imine reductase based on iridium was investigated by introducing a chiral cofactor into artificial metalloenzymes based on biotin–streptavidin technology. Various factors such as pH, temperature, number of binding sites, and steric hindrance of the catalytic moiety are shown to affect both efficiency and enantioselectivity, underlining the great flexibility of this system in comparison with the achiral system.



ChemCatChem
DOI: **10.1002/cctc.201600116**



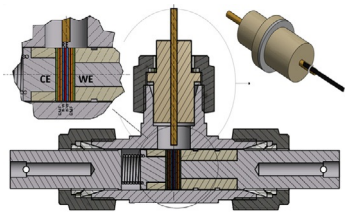
Fingerprint Dusting

T. M. Guinan, H. Kobus, Y. Lu, M. Sweetman, S. J. P. McInnes, K. P. Kirkbride, N. H. Voelcker*

Nanostructured Silicon-Based Fingerprint Dusting Powders for Enhanced Visualization and Detection by Mass Spectrometry

To catch a thief: In research on forensic methods novel nanostructured silicon microparticles with long luminescence decay times and near-IR emission were used as fingerprint dusting powders (see figure).

ChemPlusChem
DOI: **10.1002/cplu.201500546**



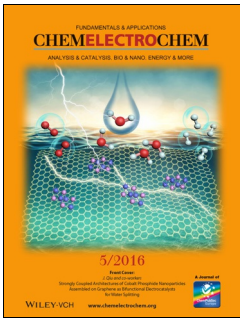
Batteries

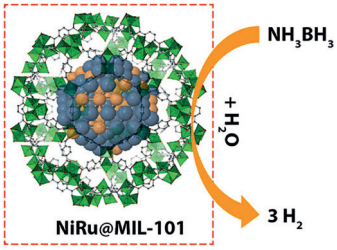
G. Garcia, W. Schuhmann,* E. Ventosa*

A Three-Electrode, Battery-Type Swagelok Cell for the Evaluation of Secondary Alkaline Batteries: The Case of the Ni–Zn Battery

Three-electrode cells are essential in understanding battery materials under operando conditions. A battery-type Swagelok cell for alkaline batteries is presented as well as several examples of its importance for investigating Zn–Ni secondary batteries.

ChemElectroChem
DOI: **10.1002/celc.201500474**





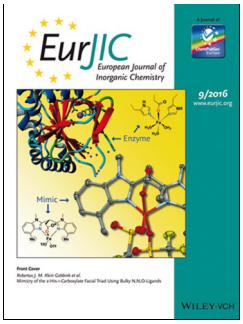
Supported Nanocatalysts

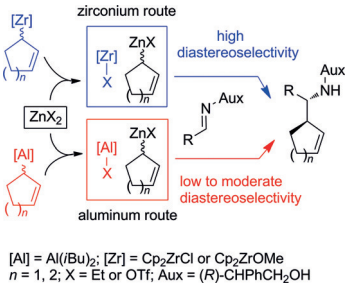
S. Roy, P. Pachfule, Q. Xu*

High Catalytic Performance of MIL-101-Immobilized NiRu Alloy Nanoparticles towards the Hydrolytic Dehydrogenation of Ammonia Borane

Ultrafine NiRu alloy nanoparticles are successfully immobilized in the pores of MIL-101 by the double-solvent method combined with the overwhelming reduction approach. The immobilized nanoparticles show high catalytic performance towards the hydrolytic dehydrogenation of ammonia borane.

Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.201600180**





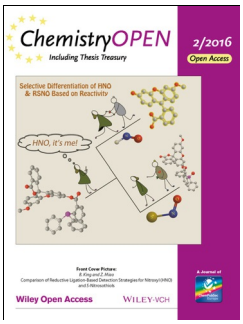
Homoallylamines

M. Coffinet, F. Jaroschik, J.-L. Vasse*

Zirconocenes vs. Alanes: a Crucial Choice of the Allyl Source for Highly Diastereoselective Allylzincation of Nonracemic Chiral Imines

The influence of the allylmetal source (allylalanes vs. allylzirconocenes) on the allylzinc formation was investigated during allylzincation of phenylglycinol-derived imines. Concomitant formation of zirconocene along with the allylzinc species enables the allylzirconocenes to induce higher diastereoselectivities, thus providing a general method for the synthesis of homoallylic amines.

Eur. J. Org. Chem.
DOI: **10.1002/ejoc.201600214**

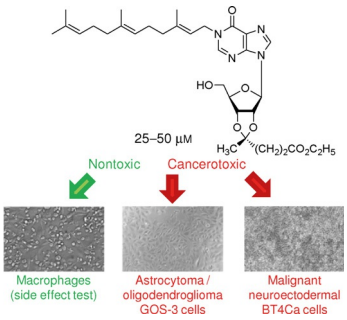


Anticancer Compounds

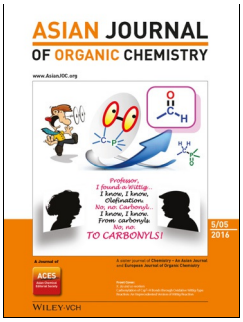
C. Knies, K. Hammerbacher, G. A. Bonaterra,* R. Kinscherf, H. Rosemeyer*

Nucleolipids of Canonical Purine ß-D-Ribo-Nucleosides: Synthesis and Cytostatic/Cytotoxic Activities Toward Human and Rat Glioblastoma Cells

Nucleolipids combat cancer: We report the synthesis of two nucleolipid derivatives from inosine and adenosine with different lipophilic moieties. These have no cytotoxic effect on human macrophages based on in vitro side-effect tests but have antiproliferative properties against malignant glioblastoma cell lines.



ChemistryOpen
DOI: **10.1002/open.201500197**

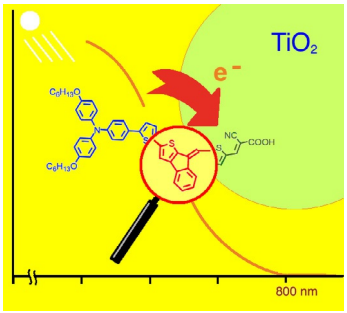


Solar Cell Sensitizers

C.-J. Liang, Y.-J. Lin, Y.-S. Yen, J. T. Lin,* M.-C. P. Yeh*

Metal-Free Indeno[2,1-*b*]thiophene-Based Sensitizers for Dye-Sensitized Solar Cells

Anchoring thiophenes: A series of indeno[2,1-*b*]thiophene-containing organic dyes (**IDT1**–**IDT5**) has been employed as sensitizers for dye-sensitized solar cells, and the UV/Vis spectra are measured beyond 700 nm. Among them, dyes **IDT3**–**IDT5** with the thiophene unit conjugated with an anchor have better light harvesting and higher J_{SC} values. Furthermore, **IDT5** with chenodeoxycholic acid (CDCA) as the co-adsorbent has the highest power conversion efficiency (5.06%), which is 68% of the standard device based on N719 dye.



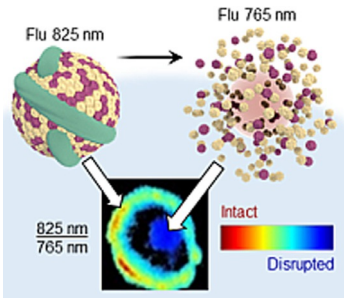
Asian J. Org. Chem.
DOI: **10.1002/ajoc.201600100**

Imaging Agents

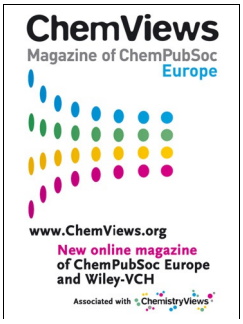
D. M. Charron, J. Chen, G. Zheng*

Nanostructure-Dependent Ratiometric NIR Fluorescence Enabled by Ordered Dye Aggregation

Less is more in theranostics: J-aggregating dyes provide more information for monitoring nanocarrier fate and drug release than conventional fluorophores through control of their supramolecular nanoassembly.



ChemNanoMat
DOI: **10.1002/cnma.201600038**

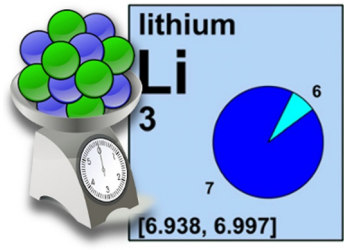


Atomic Weights

T. B. Coplen, F. Meyers, N. E. Holden

Updated Atomic Weights: Time to Review Our Table

Despite common belief, atomic weights are not necessarily constants of nature. For many elements, they depend on the relative abundance of stable isotopes. IUPAC regularly updates these values, recently for the elements selenium, molybdenum, and ytterbium.



ChemViews magazine
DOI: **10.1002/chemv.201600015**