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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.

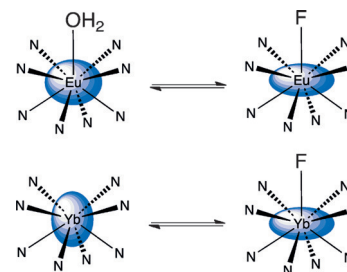


Lanthanides

O. A. Blackburn, A. M. Kenwright, A. R. Jupp, J. M. Goicoechea, P. D. Beer, S. Faulkner*

Fluoride Binding and Crystal-Field Analysis of Lanthanide Complexes of Tetrapicolyl-Appended Cyclen

Magnetic anisotropy: This study shows the importance of the local crystal field in defining the behaviour of lanthanide complexes in solution. The observation that a well-defined N8 donor set can be used to change the sense of the magnetic anisotropy at a lanthanide centre has significant implications for control of spectroscopic properties in such systems (see scheme).



Chem. Eur. J.
DOI: 10.1002/chem.201601170

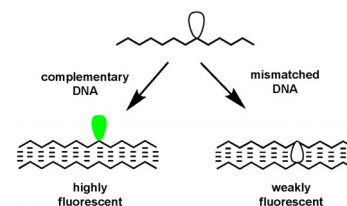


DNA Targeting

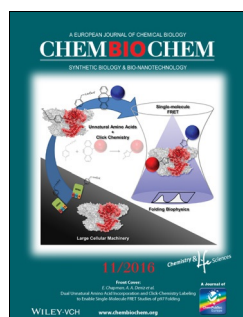
M. Kaura, P. J. Hrdlicka*

Efficient Discrimination of Single Nucleotide Polymorphisms (SNPs) Using Oligonucleotides Modified with C5-Pyrene-Functionalized DNA and Flanking Locked Nucleic Acid (LNA) Monomers

L.N.A. Confidential: Oligodeoxyribonucleotides modified with 5-[3-(1-pyrenecarboxamido)propynyl]-2'-deoxyuridine and proximal LNA monomers allow for more efficient fluorescent discrimination of SNPs than corresponding LNA-free probes.



Chem. Asian J.
DOI: 10.1002/asia.201600200

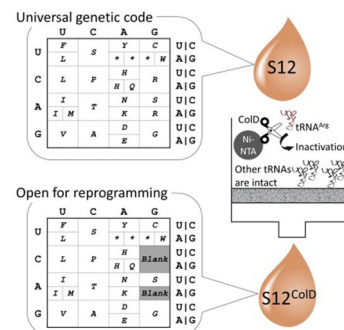


Protein Engineering

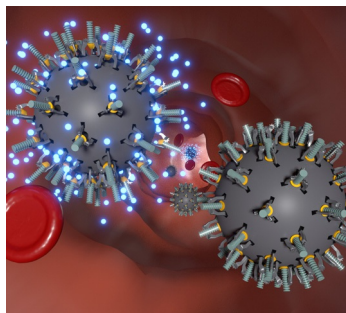
K. B. Lee, C. Y. Hou, C.-E. Kim, D.-M. Kim, H. Suga, T. J. Kang*

Genetic Code Expansion by Degeneracy Reprogramming of Arginyl Codons

tRNA^{Arg}-specific tRNase, colicin D, affects no other components of a cell-free protein synthesis system but leaves six blanks in the genetic code. These can be redirected for the incorporation of non-proteinogenic amino acids by genetic code reprogramming techniques.



ChemBioChem
DOI: 10.1002/cbic.201600111



ChemPhysChem

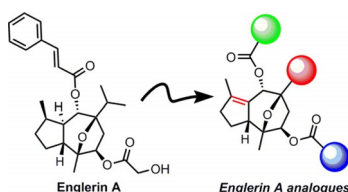
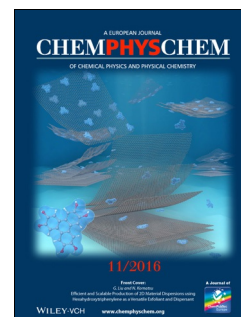
DOI: 10.1002/cphc.201501167

Nanodevices

B. Rühle, P. Saint-Cricq, J. I. Zink*

Externally Controlled Nanomachines on Mesoporous Silica Nanoparticles for Biomedical Applications

Taking control: The figure shows an artistic representation of nanomachines on mesoporous silica nanoparticles releasing cargo into the blood stream.



ChemMedChem

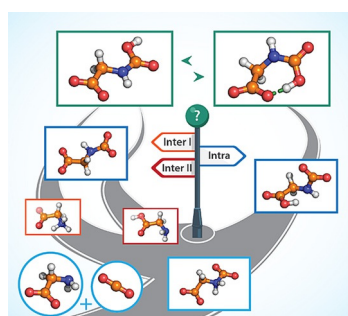
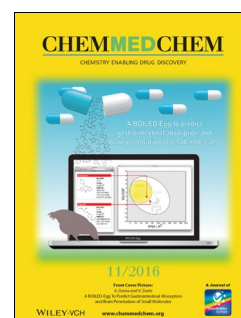
DOI: 10.1002/cmdc.201600040

Anticancer Agents

L. López-Suárez, L. Riesgo, F. Bravo, T. T. Ransom, J. A. Beutler,* A. M. Echavarren*

Synthesis and Biological Evaluation of New (–)-Englerin Analogues

Kick cancer in the kidneys: Englerin A analogues with an unsaturation in the cyclopentyl ring (between C4 and C5) show significant biological activity against renal cancer cell lines. In addition, we have developed new routes to the preparation of novel analogues in which the original isopropyl group is substituted with cyclohexyl, phenyl, and cyclopropyl moieties.



ChemSusChem

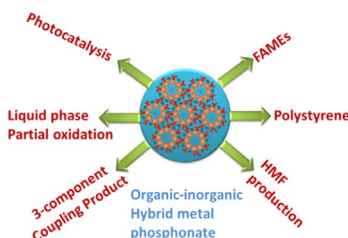
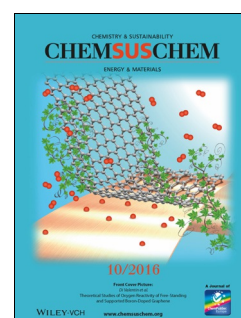
DOI: 10.1002/cssc.201600126

Carbon Dioxide Chemistry

D. S. Firaha, B. Kirchner*

Tuning the Carbon Dioxide Absorption in Amino Acid Ionic Liquids

On the right path: Theoretical methods make it possible to establish the most probable reaction pathways for CO₂ absorption in amino acid ionic liquids. This allows us to understand the specific CO₂ absorption capacities observed experimentally. The subsequent theoretical design of amino acid ionic liquids provides valuable insights for the tuning of the CO₂ absorption parameters.



ChemCatChem

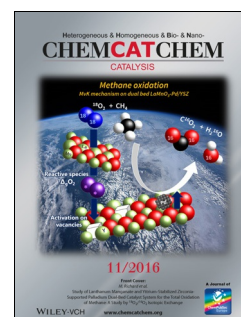
DOI: 10.1002/cctc.201501303

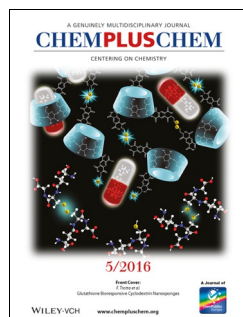
Hybrid Materials

P. Bhanja, A. Bhaumik*

Organic–Inorganic Hybrid Metal Phosphonates as Recyclable Heterogeneous Catalysts

Hybrid metal phosphonates: A wide spectrum of organic–inorganic hybrid metal phosphonates has been reported in recent times and they show versatile applications in energy and environmental research, and particularly in catalysis. All the recent developments in designing these metal phosphates are summarized here with a special emphasis on their catalytic potential in liquid-phase organic transformations.



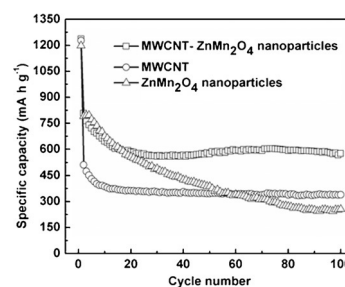
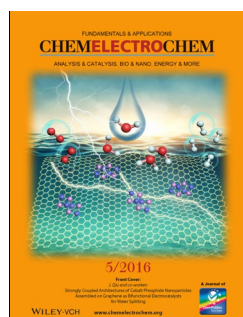


Batteries

A. K. Mondal,* H. Liu, X. Xie, K. Kretschmer, G. Wang*

Hydrothermal Synthesis of Multiwalled Carbon Nanotube–Zinc Manganate Nanoparticles as Anode Materials for Lithium Ion Batteries

Working better together: Multiwalled carbon nanotube (MWCNT)–ZnMn₂O₄ nanoparticles were fabricated by a hydrothermal method without further thermal treatment. Owing to the synergistic effect and strong interactions between the MWCNTs and ZnMn₂O₄ nanoparticles, the MWCNT–ZnMn₂O₄ composite exhibited a higher specific capacity (809 mA h g^{−1}; see figure), good rate capability and stable cycling performance compared to pristine ZnMn₂O₄ nanoparticles and MWCNTs.

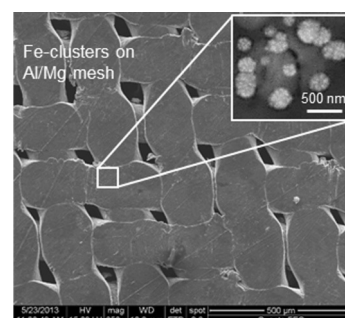
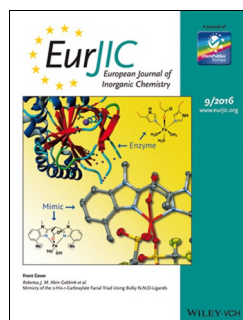
ChemPlusChem
DOI: 10.1002/cplu.201500528

Nanoparticles

M. Baloch, C. M. López*

Effect of Additives on the Pulsed-Galvanostatic Electrodeposition of Iron Nanoparticles from Formamide Media

Getting in shape: Iron-based nanoparticles are deposited onto Al/Mg grids by using pulsed-galvanostatic electrodeposition from formamide media with and without additives. The morphology of the particles, the electrochemical properties of the solutions, and changes in the electronic environment of the active iron cations are studied as a function of the type of additive used.

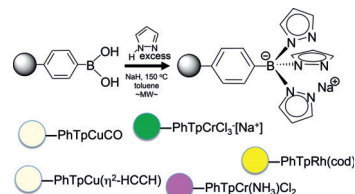
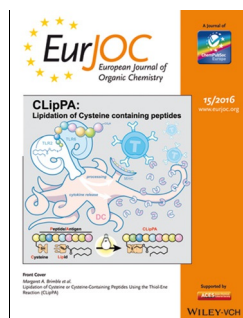
ChemElectroChem
DOI: 10.1002/celec.201600039

Supported Scorpionate Complexes

P. J. Desrochers,* A. J. Pearce, T. R. Rogers, J. S. Rodman

Rapid Synthesis of a Functional Resin-Supported Scorpionate and Its Copper(I, II), Rhodium(I), and Chromium(III) Complexes

A microwave-assisted method is described for the rapid preparation of a heterogeneous resin-supported scorpionate as its sodium salt. Formation of functional heterogeneous metal scorpionates was confirmed from subsequent reactions of its varied metal (Cr, Cu, Rh) complexes.

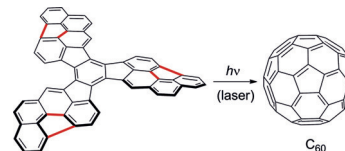
Eur. J. Inorg. Chem.
DOI: 10.1002/ejic.201501254

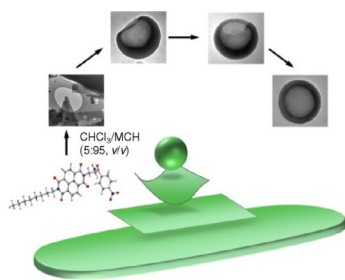
Fullerenes

R. Dorel, P. de Mendoza, P. Calleja, S. Pascual, E. González-Cantalapiedra, N. Cabello, A. M. Echavarren*

Synthesis of a Crushed Fullerene C₆₀H₂₄ through Sixfold Palladium-Catalyzed Arylation

Advanced crushed fullerene C₆₀H₂₄, synthesized by a sixfold palladium-catalyzed intramolecular arylation, forms C₆₀ fullerene by high-power laser irradiation in LDI-MS

Eur. J. Org. Chem.
DOI: 10.1002/ejoc.201600311



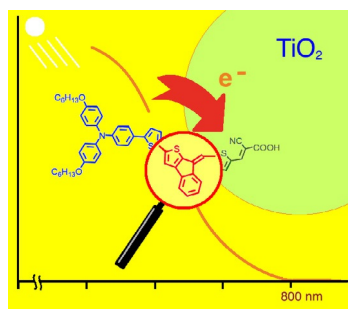
ChemistryOpen
DOI: 10.1002/open.201500201

Aggregation-Induced Emission

N. V. Ghule, D. D. La, R. S. Bhosale, M. Al Kobaisi, A. M. Raynor, S. V. Bhosale,* S. V. Bhosale*

Effect of Amide Hydrogen Bonding Interaction on Supramolecular Self-Assembly of Naphthalene Diimide Amphiphiles with Aggregation Induced Emission

Delightful diimides! The mechanism of self-assembly of a new naphthalene diimide (NDI) amphiphile in a mixture of chloroform/methylcyclohexane relies on solvophobic interactions, that result in the formation of microcups and nanobelts through π - π stacking of the core along with the hydrophobic chain packing and H-bonding. The closure of microcups leads to the formation of vesicles and microcapsules, as confirmed by infrared spectroscopy, X-ray diffraction, and scanning and transmission electron microscopy.



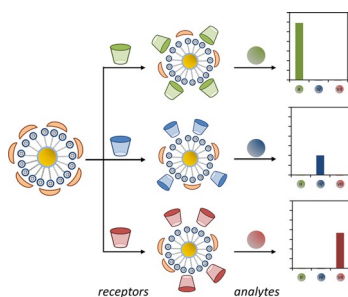
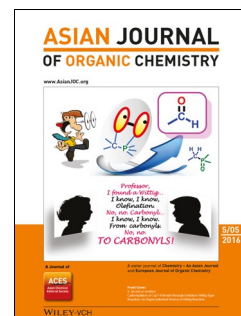
Asian J. Org. Chem.
DOI: 10.1002/ajoc.201600100

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.



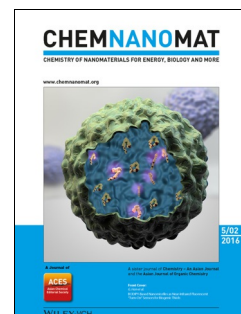
ChemNanoMat
DOI: 10.1002/cnma.201600075

Chemosensing

S. Neri, R. Pinalli, E. Dalcanele, L. J. Prins*

Orthogonal Sensing of Small Molecules Using a Modular Nanoparticle-Based Assay

Feel free to choose: A modular sensing assay is described that is able to detect small molecules under competitive conditions. The selectivity of the assay can be simply tuned by changing the macrocyclic receptors bound to the surface of a monolayer-protected gold nanoparticle.



ChemViews magazine
DOI: 10.1002/chemv.201600037

Nicotine

Nicotine-Chemistry of Smoking

Why do we smoke nicotine and do not inject it or take it in pill form? ChemViews Magazine gives a graphical overview of nicotine uptake from different sources and explains how e-cigarettes work.

