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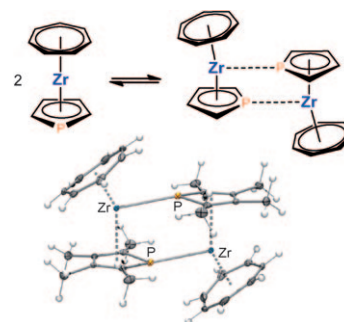


Phosphatrozircenes

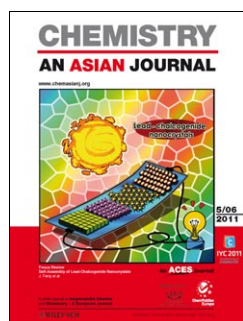
A. Glöckner, T. Bannenberg, S. Büschel, C. G. Daniliuc, P. G. Jones, M. Tamm*

Cycloheptatrienyl Zirconium Sandwich Complexes with Lewis Basic Phospholyl Ligands (Phosphatrozircenes): Synthesis, Structure, Bonding and Coordination Chemistry

Molecular zwitter: Phospholylcycloheptatrienyl zirconium complexes exhibit ambiphilic reactivity and are able to develop unusual secondary interactions as a result of the isolobal replacement of a CH group in Lewis acidic $[(\eta^7\text{-C}_7\text{H}_7)\text{Zr}(\eta^5\text{-C}_5\text{H}_5)]$ (trozircene) by a Lewis basic phosphorus atom, and the bifunctional character of these molecules is illustrated by dimerisation in the solid state (see figure).



Chem. Eur. J.
DOI: 10.1002/chem.201100104

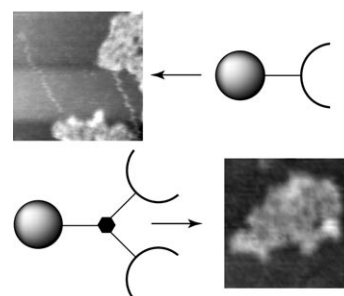


Supramolecular Oligomers

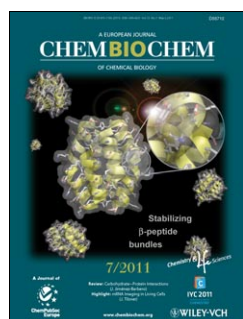
J. Santos, E. M. Pérez, B. M. Illescas, N. Martín*

Linear and Hyperbranched Electron-Acceptor Supramolecular Oligomers

Strip-tweezer: Monomers comprising one or two units of a TCAQ tweezer covalently connected to a fullerene derivative self-assemble in solution and on surfaces to form linear and hyperbranched supramolecular polymers respectively. These polymers constitute two of the first examples of purely electron-acceptor supramolecular polymers.



Chem. Asian J.
DOI: 10.1002/asia.201000832

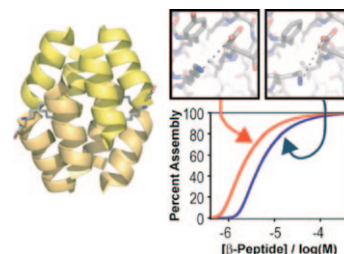


Protein Engineering

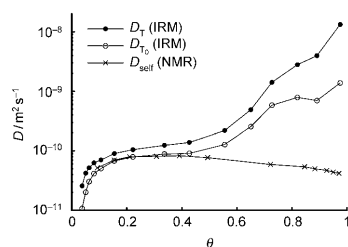
C. J. Craig, J. L. Goodman, A. Schepartz*

Enhancing β^3 -Peptide Bundle Stability by Design

Building β^3 -peptide bundles from the "bottom-up": The high-resolution structure of the octameric β -peptide helical bundle Zwit-1F revealed the unique core packing and surface interactions that drive β -bundle assembly. Mutating residues at the surface and optimizing salt bridges can lead to dramatic increases in assembly and thermodynamic stability.

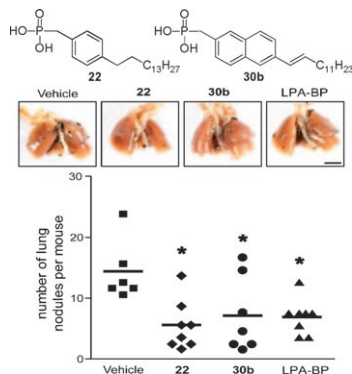


ChemBioChem
DOI: 10.1002/cbic.201000753



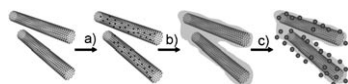
ChemPhysChem

DOI: 10.1002/cphc.201100072



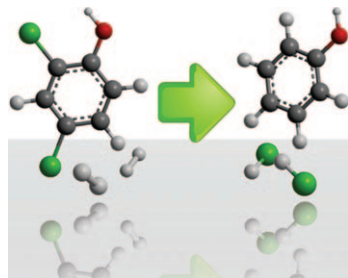
ChemMedChem

DOI: 10.1002/cmdc.201000425



ChemSusChem

DOI: 10.1002/cssc.201000315



ChemCatChem

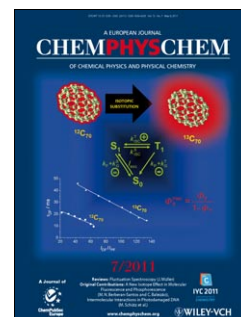
DOI: 10.1002/cctc.201000432

Diffusion

C. Chmelik, D. Enke, P. Galvosas, O. Gobin, A. Jentys, H. Jobic, J. Kärger,* C. B. Krause, J. Kullmann, J. Lercher, S. Naumov, D. M. Ruthven, T. Titz

Nanoporous Glass as a Model System for a Consistency Check of the Different Techniques of Diffusion Measurement

The remarkable differences in the guest diffusivities in nanoporous materials found with the application of different measuring techniques are usually ascribed to the existence of a hierarchy of transport resistances. Diffusion measurements with nanoporous glasses where the existence of such resistances could be avoided are reported (see picture).



Antitumor Agents

R. Gupte, R. Patil, J. Liu, Y. Wang, S. C. Lee, Y. Fujiwara, J. Fells, A. L. Bolen, K. Emmons-Thompson, C. R. Yates, A. Siddam, N. Panupinthu, T.-C. T. Pham, D. L. Baker, A. L. Parrill, G. B. Mills, G. Tigyi,* D. D. Miller*

Benzyl and Naphthalene Methylphosphonic Acid Inhibitors of Autotaxin with Anti-invasive and Anti-metastatic Activity

Inhibiting the ATX–LPA–LPA-R axis: New 4-substituted benzylphosphonic acid and 6-substituted naphthalen-2-ylmethylphosphonic acid analogues were synthesized, and the most potent ATX inhibitors, **22** and **30b**, show outstanding in vivo profiles by diminishing lung metastases of B16-F10 syngeneic mouse melanoma in a post-inoculation treatment model. These two lead compounds effectively inhibit the ATX–LPA–LPA-R axis both in vitro and in vivo.

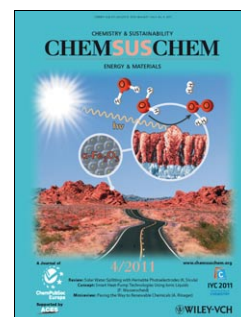


Carbon Nanotubes

C. Jin, T. C. Nagaiah, W. Xia, M. Bron, W. Schuhmann, M. Muhler*

Polythiophene-Assisted Vapor Phase Synthesis of Carbon Nanotube-Supported Rhodium Sulfide as Oxygen Reduction Catalyst for HCl Electrolysis

Rhodium Drive: Carbon nanotube-supported rhodium sulfide electrocatalysts are prepared by sequential chemical vapor deposition of iron, controlled vapor phase polymerization of thiophene, and finally impregnation of the rhodium precursor and pyrolysis. The electrocatalysts are applied in the oxygen reduction reaction under HCl electrolysis conditions.



Hydrodechlorination

M. A. Keane*

Supported Transition Metal Catalysts for Hydrodechlorination Reactions

Critical discharge concerns: The presence of chloro-organics in effluent discharges is of increasing concern, owing to the mounting evidence of adverse stratospheric ozone, ecological effects, and the impact on public health. Catalytic hydrodechlorination represents a progressive means of detoxification and recycling. This Review sets out the benefits over separation/oxidation methodologies and, focuses on the transformation of chloro-aromatics



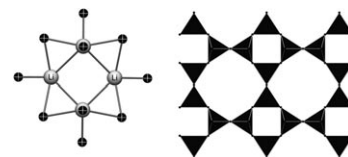


Lithium Nitridosilicate Nitride

S. Lupart, S. Pagano, O. Oeckler, W. Schnick*

$\text{Li}_2\text{Sr}_4[\text{Si}_2\text{N}_5]\text{N}$ – A Layered Lithium Nitridosilicate Nitride

The new quaternary nitridosilicate nitride $\text{Li}_2\text{Sr}_4[\text{Si}_2\text{N}_5]\text{N}$ with loop-branched $[\text{Si}_2\text{N}_5]^{7-}$ dreier single layers derived from the apophyllite structure type has been synthesized in lithium melts in weld-shut tantalum ampoules. The single-crystal structure has been analyzed by Madelung (MAPLE) and DFT (VASP) calculations.



Eur. J. Inorg. Chem.
DOI: 10.1002/ejic.201100115

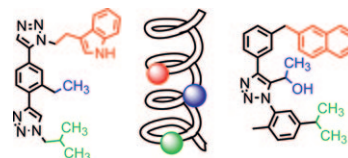


Triazole Helix Mimetics

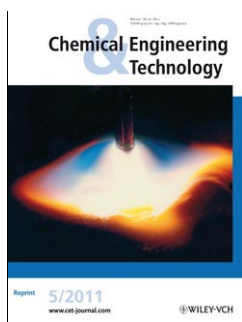
I. Ehlers, P. Maity, J. Aubé, B. König*

Modular Synthesis of Triazole-Containing Triaryl α -Helix Mimetics

Teraryl scaffolds that contain triazoles and reproduce amino acid side chains in positions i , $i+3$, and $i+7$ have been prepared as α -helix mimetics. Regioisomeric click reactions were used as key transformations.



Eur. J. Org. Chem.
DOI: 10.1002/ejoc.201001531

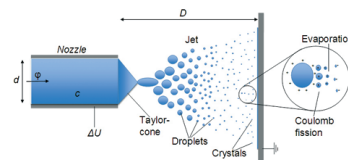


Electrospray Crystallization

N. Radacsi*, A. I. Stankiewicz, Y. L. M. Creighton, A. E. D. M. van der Heijden, J. H. ter Horst

Electrospray Crystallization for High-Quality Submicron-Sized Crystals

Electrospray crystallization is proposed as a method for creating high-quality submicron-sized crystals of the energetic material cyclotrimethylene trinitramine (RDX). The friction sensitivity of the obtained unagglomerated submicron-sized crystals was lower than that of conventional RDX, indicating that they have a better internal quality.



Chem. Eng. Technol.
DOI: 10.1002/ceat.201000538