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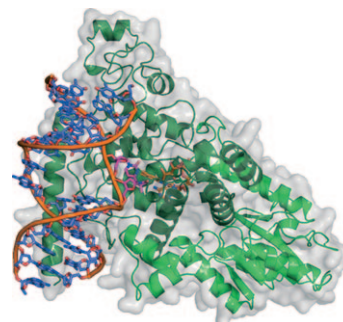


DNA Lesions

A. F. Glas, S. Schneider, M. J. Maul, U. Hennecke, T. Carell*

Crystal Structure of the T(6-4)C Lesion in Complex with a (6-4) DNA Photolyase and Repair of UV-Induced (6-4) and Dewar Photolesions

Lesions of light: The first crystal structure of a (6-4) DNA photolyase in complex with T(6-4)C lesion containing DNA is reported. Enzymatic data show that the enzyme repairs a large set of UV-induced genome lesions.



Chem. Eur. J.
DOI: [10.1002/chem.200901004](https://doi.org/10.1002/chem.200901004)

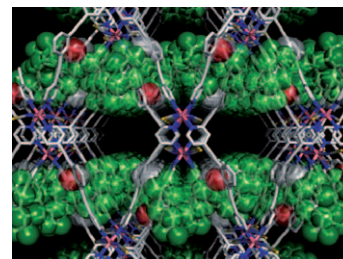


Fluorous Pores

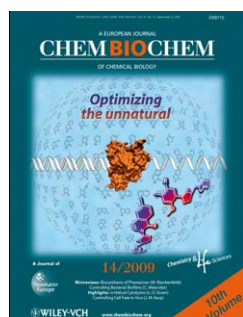
M. Jang, T. Yamaguchi, K. Ohara, M. Kawano, M. Fujita*

Fluorous Pores in Coordination Networks

Fluorous nanophase in the pore: Perfluoroalkyl chain-anchored bridging ligands are assembled, upon complexation with $\text{Co}(\text{NCS})_2$, into coordination networks with fluorous pores that show fluorophilic/organophobic properties. The perfluoroalkyl chains are considerably disordered and seem to tumble in the pores, forming a nanoscopic pseudo liquid phase in the solid.



Chem. Asian J.
DOI: [10.1002/asia.200900293](https://doi.org/10.1002/asia.200900293)

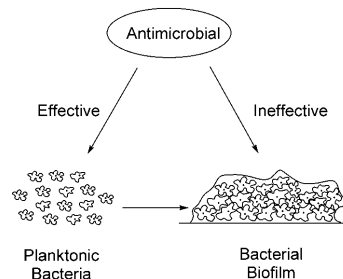


Bacterial Biofilms

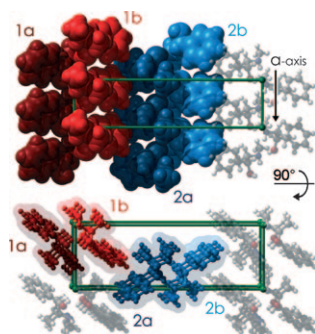
J. J. Richards, C. Melander*

Controlling Bacterial Biofilms

Films you don't want to see: The medical community faces a tremendous challenge in overcoming diseases stemming from the formation and persistence of bacterial biofilms. A concise review of current approaches employed to control bacterial biofilms is discussed.



ChemBioChem
DOI: [10.1002/cbic.200900317](https://doi.org/10.1002/cbic.200900317)



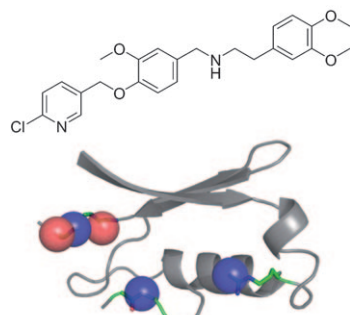
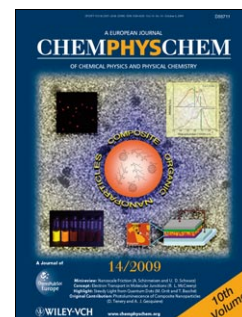
ChemPhysChem
DOI: 10.1002/cphc.200900293

Terahertz Spectroscopy

P. M. Hakey, D. G. Allis, M. R. Hudson, W. Ouellette, T. M. Korter*

Investigation of (1R,2S)-(-)-Ephedrine by Cryogenic Terahertz Spectroscopy and Solid-State Density Functional Theory

Solid performance: The terahertz vibrational spectrum of ephedrine recorded at liquid-nitrogen temperature is assigned by solid-state DFT calculations. By accounting for the influence of crystal packing and strong intermolecular forces on changes to molecular geometry (see figure), solid-state calculations perform better than isolated-molecule calculations in predicting the geometries of molecules.



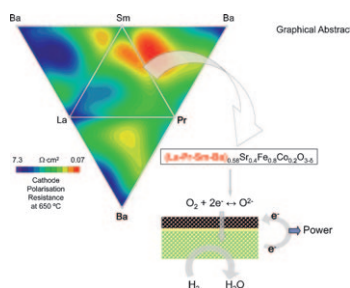
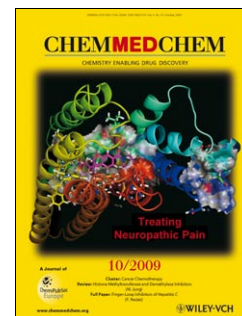
ChemMedChem
DOI: 10.1002/cmdc.200900338

Drug Discovery

S. Keppner, E. Proschak, G. Schneider, B. Spänkuch*

Identification and Validation of a Potent Type II Inhibitor of Inactive Polo-like Kinase 1

Virtual screening using a homology model of human polo-like kinase 1 (Plk1) in an inactive conformation led to the identification of a selective Plk1 inhibitor that decreases proliferation and induces apoptosis. This suggests that type II Plk1 inhibitors may be considered for the development of cancer therapeutics.



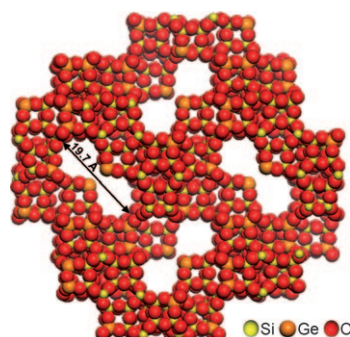
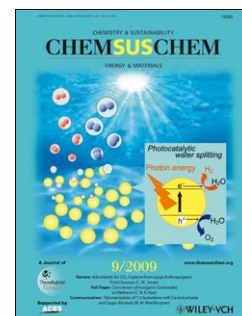
ChemSusChem
DOI: 10.1002/cssc.200900149

Fuel Cells

J. M. Serra,* V. B. Vert

Optimization of Oxygen Activation Fuel-Cell Electrocatalysts by Combinatorial Designs

Triple-A rating: The screening of electrode materials by a quaternary mixture experimental design based on the crystalline system (La, Pr, Sm, Ba)_{0.58}Sr_{0.4}Fe_{0.8}Co_{0.2}O_{3-δ} allows the identification of highly active oxygen activation fuel-cell electrocatalysts. The combination of three different A-elements in the crystalline perovskite structure results in the occurrence of synergetic effects. The best element combinations show a low electrode polarization resistance and a low activation energy.



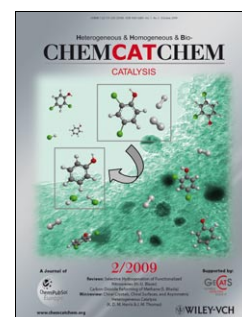
ChemCatChem
DOI: 10.1002/cctc.200900181

Asymmetric Catalysis

K. D. M. Harris,* Sir J. M. Thomas*

Selected Thoughts on Chiral Crystals, Chiral Surfaces, and Asymmetric Heterogeneous Catalysis

The chiral mesoporous zeolite ITQ-37 is known to catalyze the acetalization of aldehydes but, to date, no asymmetric heterogeneously catalyzed reactions have been developed that exploit the zeolite's chirality. This Minireview explores reasons for the lack of enantioselective applications for chiral zeolites and, with reference to ITQ-37, discusses the design of chiral solids to catalyze enantioselective transformations.



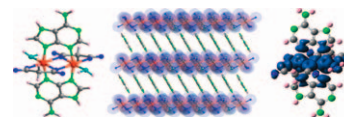


Metal–Nucleobase Complexes

S. Pérez-Yáñez, O. Castillo,* J. Cepeda, J. P. García-Terán, A. Luque,* P. Román

Analysis of the Interaction between Adenine Nucleobase and Metal-Malonato Complexes

Metal-malonato frameworks act as receptors of the adenine nucleobase to give the five compounds whose crystal structures and magnetic properties are reported herein. DFT calculations have been performed to analyze unusual supramolecular interactions and to evaluate the magnetic behaviour of these compounds.



Eur. J. Inorg. Chem.
DOI: 10.1002/ejic.200900124

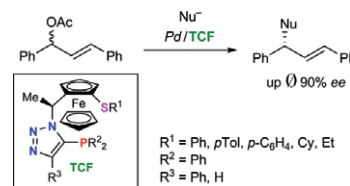


ThioClickFerrophos P,S Ligands

M. Kato, T. Nakamura, K. Ogata, S.-i. Fukuzawa*

Synthesis of Novel Ferrocenyl-Based P,S Ligands (ThioClickFerrophos) and Their Use in Pd-Catalyzed Asymmetric Allylic Substitutions

Pd complexes of novel ferrocenyl P,S ligands with triazole backbones (ThioClickFerrophos) were effectively employed with good enantioselectivities in asymmetric allylic alkylation, etherification, and amination of (±)-1,3-diphenylprop-2-enyl acetate.



Eur. J. Org. Chem.
DOI: 10.1002/ejoc.200900766

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