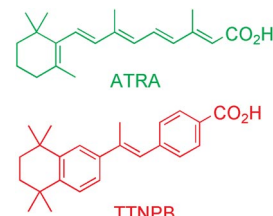


computer, click on any of the items to read the full article. Otherwise please see the DOIs for easy online access through Wiley InterScience.

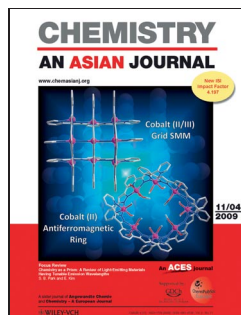


J. H. Barnard, J. C. Collings, A. Whiting,* S. A. Przyborski,*
T. B. Marder*

Cell differentiation: Synthetic retinoids, such as TTNPB, have several advantages over their endogenous counterparts, such as ATRA, particularly in terms of their increased stabilities. Many also have a large degree of receptor selectivity, which is largely attributed to their particular chemical structures. For these reasons, they are likely to have a significant role both in research and clinical practice.

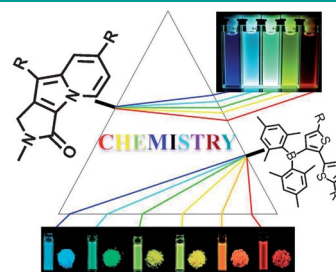


Chem. Eur. J.
DOI: 10.1002/chem.200901952

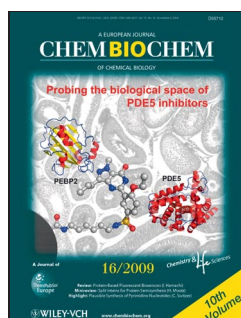


E. Kim, S. B. Park*

Lighten up! Photoluminescent materials have been extensively applied in various fields of science because of their attractive characteristics, such as excellent sensitivity, good specificity, a large linear range of analysis, ease of handling, and so on. In this article, we review recent progress in the tuning of the photophysical properties of fluorescent and phosphorescent materials, focusing especially on the tunability of their emission properties.

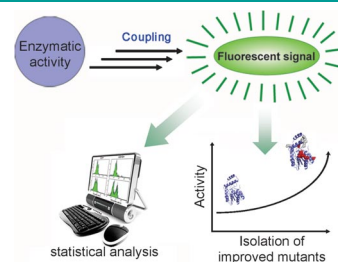


Chem. Asian J.
DOI: 10.1002/asia.200900102

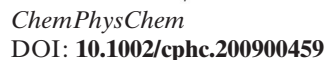


G. Yang, S. G. Withers*

The FACS of life: Fluorescence-activated cell sorting (FACS) has recently emerged as a powerful tool for screening enzyme libraries. The key step in developing a FACS screening method is to establish a linkage between genotype and phenotype. In this minireview, we discuss recent advances in FACS-based screening for enzymatic activity and especially focus on the novel approaches that couple the target enzymatic activity with a detectable fluorescent signal.



ChemBioChem
DOI: 10.1002/cbic.200900384

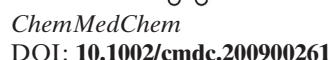


Metal-Organic Frameworks

M. Fischer, F. Hoffmann, M. Fröba*

Preferred Hydrogen Adsorption Sites in Various MOFs—A Comparative Computational Study

Force-field based grand-canonical Monte Carlo simulations are used to predict the preferential adsorption sites of hydrogen in metal-organic frameworks. Capabilities and limitations of the methodology are critically discussed. A particular focus is put on the structure-property relationships, identifying structural features that are most favourable for hydrogen adsorption.



Drug Design

S. Lachenicht, A. Fischer, C. Schmidt, M. Winkler, A. Rood,
H. Lemoine, M. Braun*

Synthesis of Modified 4*H*-1,2,4-Benzothiadiazine-1,1-dioxides and Determination of their Affinity and Selectivity for Different Types of K_{ATP} Channels

Open sesame: Enhanced activity as K_{ATP} channel openers was found in benzothiadiazine-1,1-dioxides with cycloaliphatic side chains in the position 3, relative to the parent compound, diazoxide (R=H). High selectivity was reached with nonpolar globular substituents (R=1-adamantyl): the affinity for the SUR2B/Kir6.1 ion channel surpasses that for SUR/Kir6.2 receptor by more than two orders of magnitude.



Fuel Desulfurization

E. Kuhlmann, M. Haumann, A. Jess, A. Seeberger,
P. Wasserscheid*

Ionic Liquids in Refinery Desulfurization: Comparison between Biphasic and Supported Ionic Liquid Phase Suspension Processes

The desulfurization of fuel compounds in the presence of ionic liquids is reported. When dispersing the ionic liquid as a thin film on highly porous silica, these supported ionic liquid phase (SILP) materials exhibit a significantly higher extraction performance due to the larger surface area. Extraction with SILP materials (see image) offers very efficient utilization of ionic liquids, circumvents mass transport limitations, and allows the application of simple packed-bed column extraction.

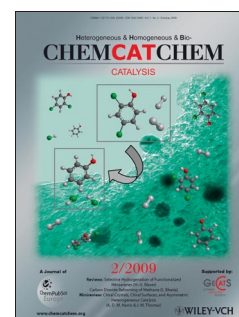
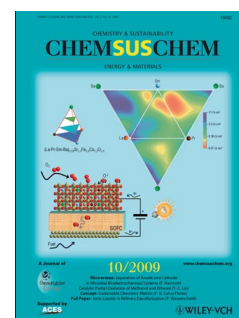
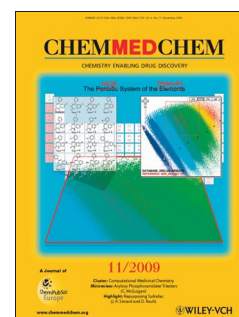


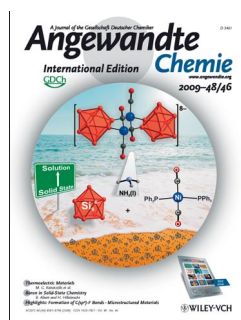
Zeolite Catalysis

L. Lang, X. Liu,* M. Hu, B. Zhang*

Highly Enhanced Phenol Hydroxylation in $[h0h]$ -Oriented Fe-ZSM-5 Membranes

Phenol Fantasy: The use of the $[h0h]$ -oriented Fe-ZSM-5 membrane in the interphase membrane reactor significantly promotes the hydroxylation of phenol due to molecular path control in the zeolite membranes and exhibits superior catalytic activity compared to various different-sized Fe-ZSM-5 grains loaded in a traditional slurry reactor.



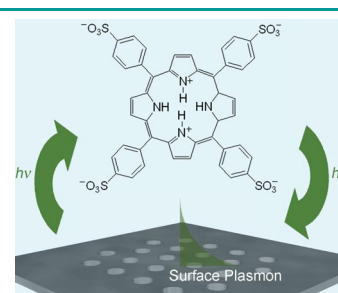


Photophysics

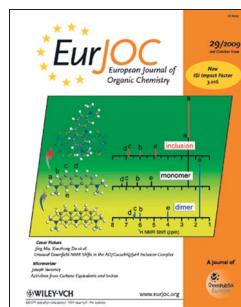
A. Salomon, C. Genet, T. W. Ebbesen*

Molecule–Light Complex: Dynamics of Hybrid Molecule–Surface Plasmon States

An exciting exchange: Molecules and surface plasmons may interact through the exchange of photons (see picture) to form new hybrid states in which the photophysical properties of the molecule are altered. This process could form the basis of a new pathway for the modification of the photochemistry and even the chemistry of molecules.



Angew. Chem. Int. Ed.
DOI: 10.1002/anie.200903191

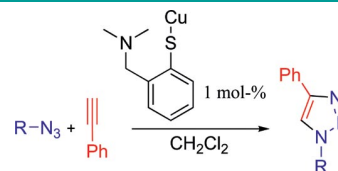


Copper-Catalysed Huisgen Reaction

P. Fabbrizzi,* S. Cicchi,* A. Brandi, E. Sperotto, G. van Koten

An Efficient (2-Aminoarenethiolato)copper(I) Complex for the Copper-Catalysed Huisgen Reaction (CuAAC)

A new copper(I) complex is shown to be an efficient catalyst for the copper-catalysed Huisgen reaction between azides and alkynes. The complex catalysed the decoration of dendrimers in organic solvents.



Eur. J. Org. Chem.
DOI: 10.1002/ejoc.200900779