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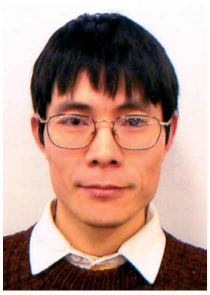


"My motto is 'simple is beautiful'.
My favorite drink is green tea ..."
This and more about Chengde Mao can be found on page 10220.

News

T. J. Marks

K. O. Christe

W. Tan

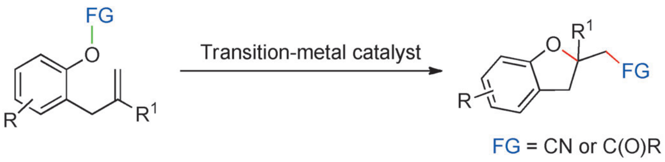
A. R. Wheeler

Books

Highlights

Alkene Difunctionalization

Intramolecular Alkoxycyanation and Alkoxyacylation Reactions: New Types of Alkene Difunctionalizations for the Construction of Oxygen Heterocycles

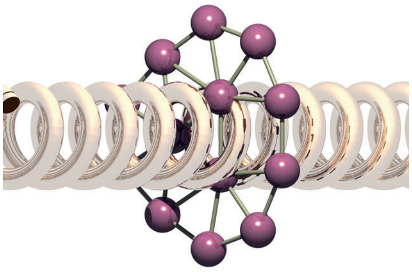


Functionalized dihydrobenzofuran derivatives can be obtained by intramolecular alkoxycyanation and alkoxyacylation of alkenes (see scheme). In both transformations, selective activation of an O–FG bond is accomplished by using a transition-metal catalyst. These transformations represent a conceptually new approach to metal-catalyzed alkene difunctionalization.

Molecular Motors

G. Merino,* T. Heine* ___ **10226 – 10227**

And Yet It Rotates: The Starter for a Molecular Wankel Motor



Gentlemen, start your engines! A starter system for the smallest molecular motor known so far, B_{13}^{+}, has been prepared. An external laser field of circular polarized light with a tuned frequency is used to trigger the rotation of the inner and outer rings of the planar π-aromatic double-ring system (see picture). Can this idea be transferred to other systems in nanotechnology?

Minireviews

Coordination Chemistry

V. K. K. Praneeth, M. R. Ringenberg, T. R. Ward* ___ **10228 – 10234**

Redox-Active Ligands in Catalysis

Juggling with both hands: For sustainable energy, mastering multi-electron catalytic processes is the key feature. To address this challenge, nature combines redox-active metals with redox-active mediators or ligands. The resulting catalytic transformations (e.g. water splitting, CO_2 reduction, C–H activation) proceed with low kinetic barriers. This Minireview highlights recent examples of homogeneous catalysis involving redox-active ligands.

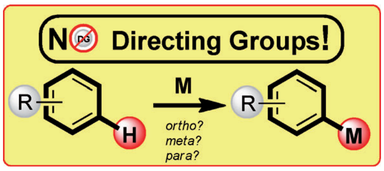
Reviews

C–H Activation

N. Kuhl, M. N. Hopkinson, J. Wencel-Delord, F. Glorius* ___ **10236 – 10254**

Beyond Directing Groups: Transition-Metal-Catalyzed C–H Activation of Simple Arenes

Directionless? Obtaining high levels of reactivity and selectivity is crucial for extending the scope of modern C–H activation chemistry. Whereas most of these transformations rely on the help of directing groups (DGs; leading to *ortho*-functionalized products and a remaining DG), the development of powerful alternative strategies is of utmost importance. Progress and trends of this evolving field are discussed.



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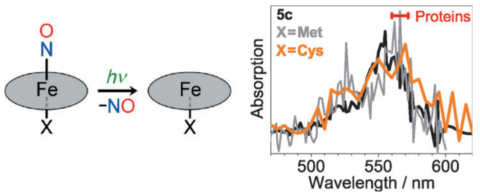
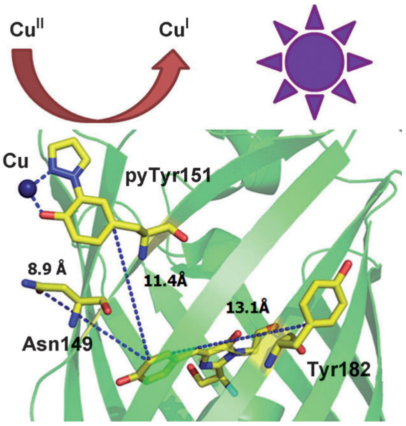
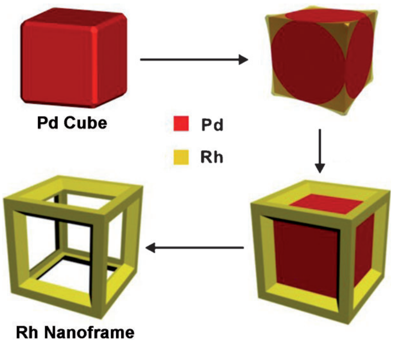
Communications



Almost innocent: In photobiophysical studies of ferric heme nitrosyl complexes, the absorption spectra of six-coordinate complexes with NO and Met or Cys are similar to that of the five-coordinate complex ion Fe(heme)(NO)$^+$. Since the absorption spectra of related proteins with histidine as the proximal ligand are similar to those of the gaseous complexes, the protein microenvironment has little effect on the lowest-energy transition of the porphyrin macrocycle.



ET encounters jellyfish: Through the incorporation of the metal-chelating amino acid pyTyr into green fluorescent protein (GFP) from jellyfish, photoinduced electron transfer (ET) from the GFP chromophore to a bound Cu^{II} ion was shown to occur within one nanosecond in a distance-dependent manner. The crystal structure of GFP with pyTyr at a specific position shows the structural basis for the nanomolar binding affinity of pyTyr to Cu^{II} ions.



The art of addition and subtraction: By confining the nucleation and growth of Rh atoms only to the corners and edges of Pd cubic seeds, Pd-Rh core–frame nanocrystals were obtained with concave side faces. The Pd cores were then selectively removed by oxidative etching to generate Rh cubic nanoframes with a highly open structure (see picture).

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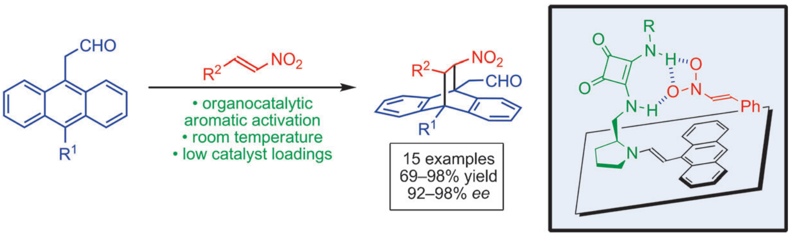
Asymmetric Catalysis

H. Jiang, C. Rodríguez-Escrich, T. K. Johansen, R. L. Davis, K. A. Jørgensen* ———— 10271 – 10274

Organocatalytic Activation of Polycyclic Aromatic Compounds for Asymmetric Diels–Alder Reactions

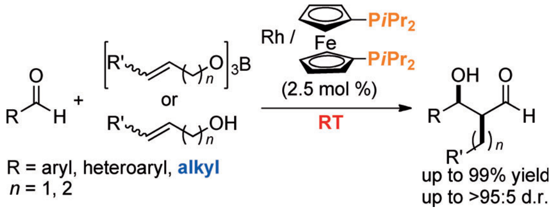


The anglerfish catalyst: The activation of anthracenes through aminocatalysis (see scheme) allows them to undergo [4+2] cycloadditions with concomitant breaking of the aromaticity at room temperature and low catalyst loadings. A highly enantioselective Diels–Alder reaction of anthracenes has been developed using nitroalkenes as dienophiles.

Synthetic Methods

L. Lin, K. Yamamoto, S. Matsunaga,* M. Kanai* ———— 10275 – 10279

Rhodium-Catalyzed Cross-Aldol Reaction: In Situ Aldehyde-Enolate Formation from Allyloxyboranes and Primary Allylic Alcohols

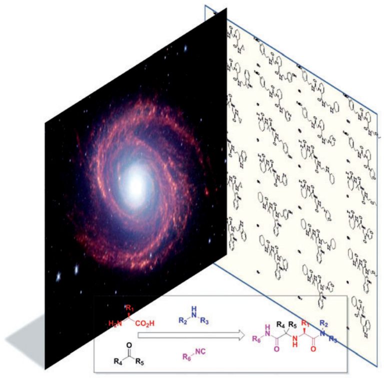


Dip in! A Rh/dippf catalyst generates aldehyde-derived enol boranes at ambient temperature by isomerization of allyloxy- and homoallyloxyboranes. A one-pot isomerization/cross-aldol sequence provides aldehyde–aldehyde adducts in good yield with *syn* selectivity. Direct use of primary allylic and homoallylic alcohols was also achieved.

Molecular Diversity

K. Khoury, M. K. Sinha, T. Nagashima, E. Herdtweck, A. Dömling* ———— 10280 – 10283

Efficient Assembly of Iminodicarboxamides by a “Truly” Four-Component Reaction

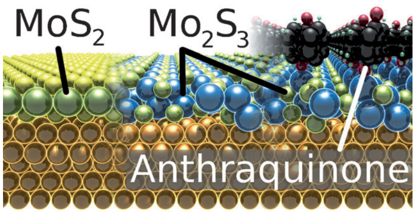


Mix and match: Similar to a galaxy consisting of millions of stars, a multicomponent reaction (MCR) system can result in millions of compounds. The MCR of α-amino acids, oxo components, isocyanides, and amines leads to numerous and diverse compounds, thus having enormous potential for drug discovery or catalyst screening.

Adsorption

D. Sun, W. Lu, D. Le, Q. Ma, M. Aminpour, M. Alcántara Ortigoza, S. Bobek, J. Mann, J. Wyrick, T. S. Rahman, L. Bartels* ———— 10284 – 10288

An MoS_x Structure with High Affinity for Adsorbate Interaction

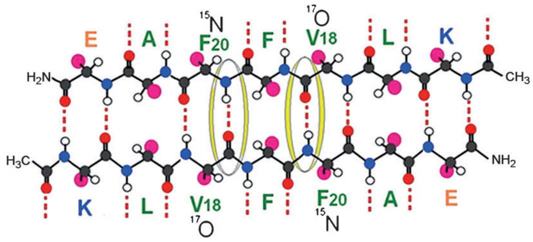


An Mo_2S_3 monolayer grown on copper coexists with well-known MoS_2 patches and triangular islands. Imaging by scanning tunneling microscopy after exposure to anthraquinone shows the new structure to be far more active in adsorption, permitting even the formation of a compressed adsorbate layer before other surface areas, including the supposedly reactive brim areas of MoS_2 islands, capture this adsorbate.

Solid-State NMR

O. N. Antzutkin,* D. Iuga, A. V. Filippov,
R. T. Kelly, J. Becker-Baldus, S. P. Brown,
R. Dupree ______________ **10289 – 10292**

Hydrogen Bonding in Alzheimer's Amyloid-β Fibrils Probed by $^{15}N\{^{17}O\}$ REAPDOR Solid-State NMR Spectroscopy



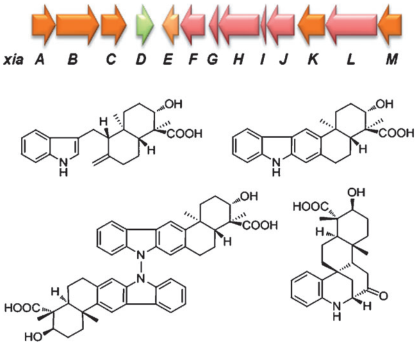
An exclusive label: $^{15}N\{^{17}O\}$ REAPDOR NMR was used to validate intermolecular $C{=}^{17}O\cdots H{-}^{15}N$ hydrogen bonding in Ac-$A\beta_{(16-22)}$-NH_2 (see scheme) and $A\beta_{(11-25)}$ amyloid fibrils, which are associated with Alzheimer's disease, by selectively labeling them with ^{17}O and ^{15}N. This method was effective for confirming the structure of these fibrils, and could be useful for a number of other biological samples.

Bacterial Alkaloids

Z. Xu, M. Baunach, L. Ding,
C. Hertweck* ______________ **10293 – 10297**

Bacterial Synthesis of Diverse Indole Terpene Alkaloids by an Unparalleled Cyclization Sequence

Getting indole terpenes into shape: Genetic analysis, pathway dissection, and heterologous reconstitution provide first insights into bacterial indolosesquiterpenoid biosynthesis and unveil the involvement of a new type of terpene cyclase and an indole oxygenase in the formation of indosespene, xiamycin, and sespenine ring systems. Furthermore, heterologous pathway expression led to the discovery of C–C- and C–N-linked xiamycin dimers.

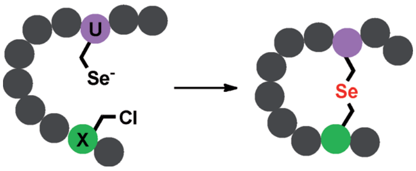


Peptide Cyclization

A. D. de Araujo,* M. Mobli, G. F. King,
P. F. Alewood ______________ **10298 – 10302**

Cyclization of Peptides by using Selenolanthionine Bridges

Selenocysteine does the job: Lanthionine bridges are important structural elements in naturally occurring lantibiotics. They can be engineered into peptides to increase biological activity and metabolic stability. Macrocyclization of peptides by intramolecular thiolation of cysteine is often difficult but can be achieved by replacing cysteine with the more reactive isosteric selenocysteine amino acid.

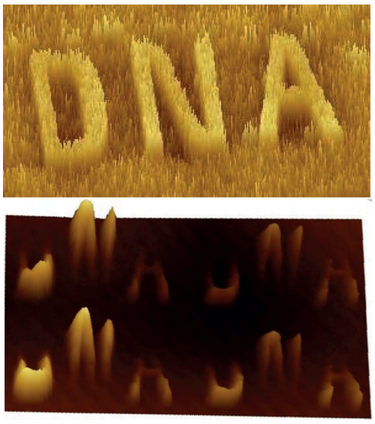


DNA Nanostructures

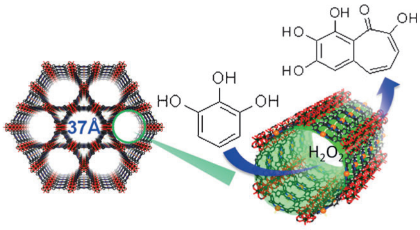
M. N. Khan, V. Tjong, A. Chilkoti,
M. Zharnikov* ______________ **10303 – 10306**

Fabrication of ssDNA/Oligo(ethylene glycol) Monolayers and Complex Nanostructures by an Irradiation-Promoted Exchange Reaction

Creative design: An approach to preparing mixed monolayers of thiolated single-stranded DNA (ssDNA) and oligo(ethylene glycol)s (OEG-AT) in a broad range of compositions as well as ssDNA/OEG-AT patterns of any required shape (see top figure) has been shown. A combination of this approach with surface-initiated enzymatic polymerization allows complex 3D DNA nanostructures to be sculpted with high spatial precision (bottom).



Biomimetic MOF: Extremely stable MOFs with different open metal sites and ultra-large 1D channels, PCN-222 (Fe, Mn, Co, Ni, Cu, and Zn), have been assembled with eight-connected Zr_6 clusters and redox-active metalloporphyrin motifs. PCN-222(Fe) shows peroxidase-like activity in aqueous solution, exhibiting highly effective biomimetic oxidation on a number of substrates.

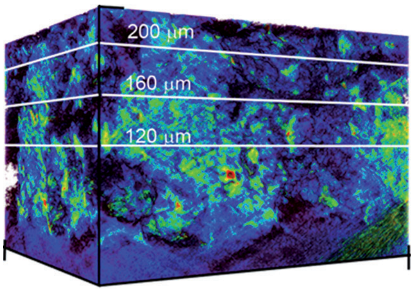


Porous Coordination Networks

D. Feng, Z.-Y. Gu, J.-R. Li, H.-L. Jiang, Z. Wei, H.-C. Zhou* ____ **10307 – 10310**

Zirconium-Metalloporphyrin PCN-222: Mesoporous Metal–Organic Frameworks with Ultrahigh Stability as Biomimetic Catalysts

Front Cover

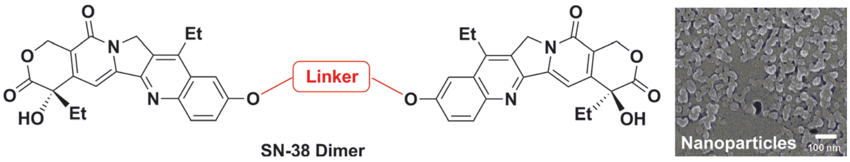


Four-dimensional visualization of Pt/C cathode catalyst layers in membrane electrode assemblies (MEAs) were successfully performed by a newly developed method, namely laminography–XAFS (X-ray absorption fine structure). The method not only enables imaging of the 3D distribution of Pt nanoparticle cathode catalysts, but also the chemical states of the Pt catalysts in fresh and degraded MEAs in a nondestructive manner.

Visualization of Electrodes

T. Saida, O. Sekizawa, N. Ishiguro, M. Hoshino, K. Uesugi, T. Uruga, S. Ohkoshi, T. Yokoyama, M. Tada* ____ **10311 – 10314**

4D Visualization of a Cathode Catalyst Layer in a Polymer Electrolyte Fuel Cell by 3D Laminography–XAFS

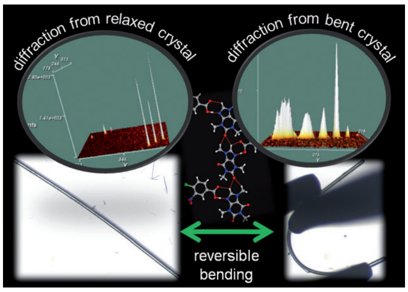


A method for preparing nanoparticles of a water-insoluble drug that are suitable for administration to the human body has been established. A reprecipitation method was used to fabricate 50 nm nanoparticles of dimerized SN-38, an anticancer camptothecin derivative, that form stable aqueous dispersions and can penetrate into cancer cells to inhibit cell proliferation more potently than irinotecan.

Nanotechnology

H. Kasai,* T. Murakami, Y. Ikuta, Y. Koseki, K. Baba, H. Oikawa, H. Nakanishi, M. Okada, M. Shoji, M. Ueda, H. Imahori, M. Hashida ____ **10315 – 10318**

Creation of Pure Nanodrugs and Their Anticancer Properties



Crystalline spring: Single crystals formed from caffeine, 4-chloro-3-nitrobenzoic acid, and methanol (1:1:$<$1) have an interlocked structure with weak interactions in the three perpendicular directions, as well as solvent channels, and display reversible elastic bending. Excellent conservation of long-range order even after many bending cycles is observed, thus demonstrating the opportunities for flexible organic materials.

Crystal Engineering

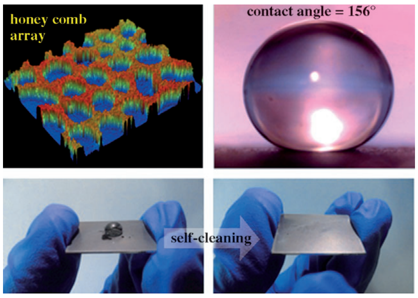
S. Ghosh, C. M. Reddy* _ **10319 – 10323**

Elastic and Bendable Caffeine Cocrystals: Implications for the Design of Flexible Organic Materials

Self-Cleaning Materials

M. B. Avinash, E. Verheggen,
C. Schmuck,*
T. Govindaraju* ________ **10324 – 10328**

Self-Cleaning Functional Molecular Materials



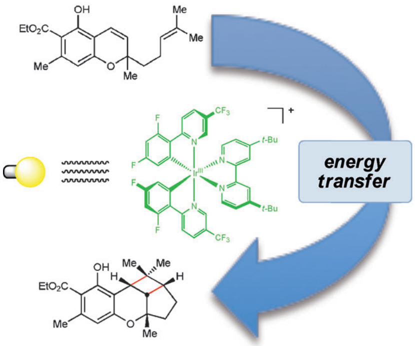
Clean and polish: The spontaneous hierarchical molecular assembly of a naphthalenediimide derivative is used to form microarrays by a simple solution-processing technique. This method is further employed to fabricate a self-cleaning surface with very low slide angle (3°) and contact angle hysteresis (1°).

Photocatalysis

Z. Lu, T. P. Yoon* ________ **10329 – 10332**

Visible Light Photocatalysis of [2+2] Styrene Cycloadditions by Energy Transfer

Hip to be square: Styrenes participate in [2+2] cycloadditions upon irradiation with visible light in the presence of an iridium(III) polypyridyl complex. In contrast to previous reports of visible light photoredox catalysis, the mechanism of this process involves photosensitization by energy transfer and not electron transfer.

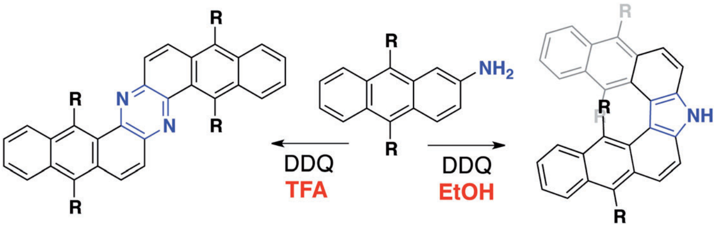


Oligoacenes

K. Goto, R. Yamaguchi, S. Hiroto,*
H. Ueno, T. Kawai,
H. Shinokubo* ________ **10333 – 10336**

Intermolecular Oxidative Annulation of 2-Aminoanthracenes to Diazaacenes and Aza[7]helicenes

Inside Back Cover

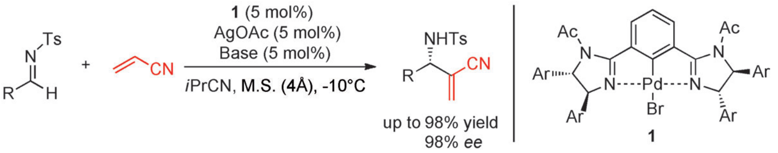


Which way to go: The product distribution in the efficient oxidation of 2-aminoanthracene derivatives to pyrazine- and pyrrole-fused bisanthracenes can be controlled by additives (see scheme; TFA = trifluoroacetic acid, DDQ = 2,3-dichloro-5,6-dicyano-1,4-benzoquinone). The pyrrole-fused dimer can be regarded as an aza[7]helicene with a stable helical conformation.

Asymmetric Synthesis

K. Hyodo, S. Nakamura,*
N. Shibata* ________ **10337 – 10341**

Enantioselective Aza-Morita–Baylis–Hillman Reactions of Acrylonitrile Catalyzed by Palladium(II) Pincer Complexes having C_2-Symmetric Chiral Bis(imidazoline) Ligands

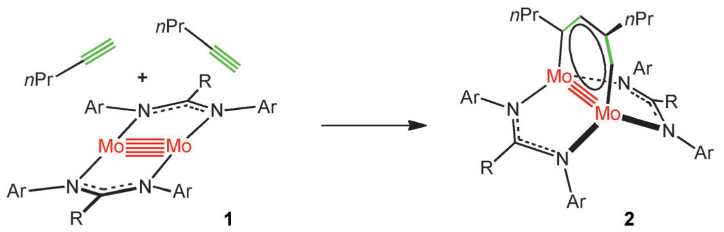


Simple and efficient: The first highly enantioselective aza-Morita–Baylis–Hillman reaction between acrylonitrile and imines has been developed. Excellent yields and enantioselectivities were observed for the reaction of various imines using chiral phebim/Pd^{II} complexes (**1**; see scheme). This process offers a simple and efficient route for the synthesis of functionalized α-methylene-β-aminonitriles and their derivatives.

Aromaticity

H.-Z. Chen, S.-C. Liu, C.-H. Yen,
J.-S. K. Yu,* Y.-J. Shieh, T.-S. Kuo,
Y.-C. Tsai* ______ **10342 – 10346**

Reactions of Metal–Metal Quintuple Bonds with Alkynes: [2+2+2] and [2+2] Cycloadditions

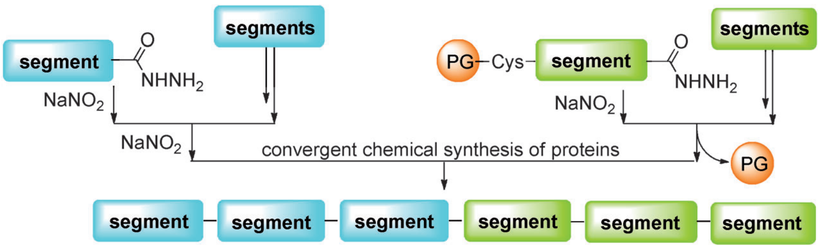


High five! The quintuply bonded molybdenum amidinate **1** reacts with two equivalents of 1-pentyne through a [2+2+2] cycloaddition reaction to give the first examples of the benzannulated product **2**. The C_4Mo_2 rings exhibit aromatic character. Treatment of **1** with internal alkynes afforded the 2:1 and 1:1 [2+2] cycloadducts, which are mechanistically associated with the formation of **2**.

Total Synthesis

G.-M. Fang, J.-X. Wang,
L. Liu* ______ **10347 – 10350**

Convergent Chemical Synthesis of Proteins by Ligation of Peptide Hydrazides

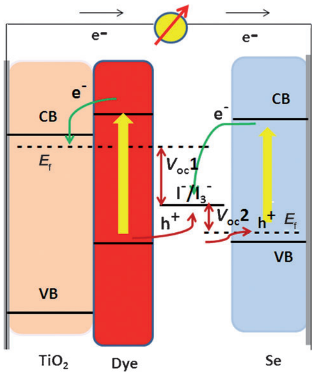


Coming together: A generally applicable strategy for convergent chemical synthesis of proteins from multiple peptide segments is developed on the basis of the ligation of peptide hydrazides. The peptide hydrazide intermediates can be made at low cost and the new strategy is used in the synthesis of the 142 residue model protein RpS25 from six peptide segments. PG = protecting group.

Solar Cells

J. Qian, K.-J. Jiang,* J.-H. Huang, Q.-S. Liu,
L.-M. Yang,* Y. Song* ______ **10351 – 10354**

A Selenium-Based Cathode for a High-Voltage Tandem Photoelectrochemical Solar Cell

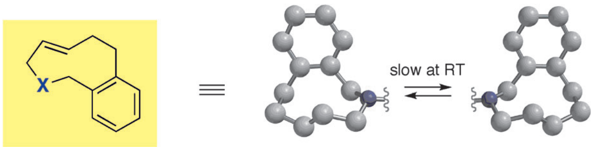


High voltage: A selenium-based photocathode has been developed for a photoelectrochemical solar cell with a high open-circuit voltage V_{oc} of 318 mV and an efficiency of 0.34 %. A higher V_{oc} of 940 mV was realized in a tandem solar cell with a conventional N719 dye-sensitized photoanode, giving an efficiency of 0.98 %.

Chirality

K. Tomooka,* C. Iso, K. Uehara,
M. Suzuki, R. Nishikawa-Shimono,
K. Igawa ______ **10355 – 10358**

Planar-Chiral [7]Orthocyclophanes



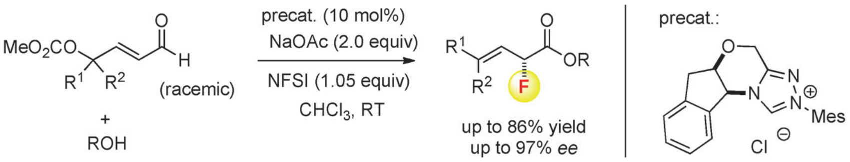
1: **X** = CH_2, O, NTs

Just plain chiral: The [7]orthocyclophanes **1**, having an *E*-olefinic ansa chain, exhibit planar chirality at ambient temperature and their stereochemical stabilities are highly dependent upon the embedded X group in the ansa chain. Inter- and intramolecular transformations of **1** (where X = NTs) provide a variety of nitrogen-containing chiral molecules in a stereospecific manner. Ts = 4-toluenesulfonyl.

Asymmetric Fluorination

Y.-M. Zhao, M. S. Cheung, Z. Lin,* J. Sun* ——— **10359 – 10363**

Enantioselective Synthesis of β,γ-Unsaturated α-Fluoroesters Catalyzed by N-Heterocyclic Carbenes

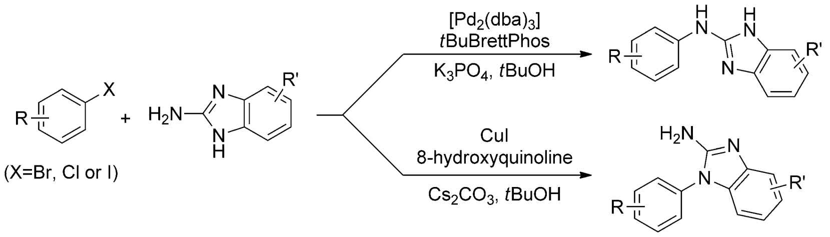


NHC meets F: NHC-bound enolates undergo a catalytic asymmetric fluorination reaction to β,γ-unsaturated α-fluoroesters, which are obtained with good efficiency and stereoselectivity (see scheme, NFSI = *N*-fluorobenzenesulfonimide). The strategy overcomes possible challenges, such as fluorination in the γ position and difluorination. Experimental evidence combined with DFT calculations provides insight into the reaction mechanism.

Synthetic Method

S. Ueda, S. L. Buchwald* **10364 – 10367**

Catalyst-Controlled Chemoselective Arylation of 2-Aminobenzimidazoles



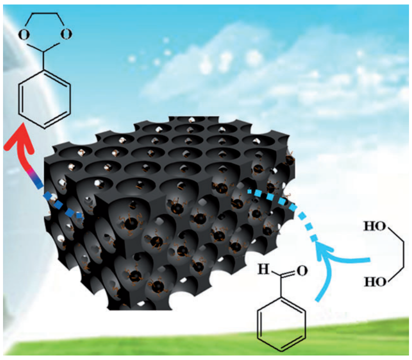
What N would you like? The chemoselective and complementary Pd- and Cu-catalyzed N-arylation of 2-aminobenzimidazoles is described. Selective N-arylation of the amino group was achieved with a Pd-catalyzed method, while selective N-arylation of azole nitrogen was achieved with a Cu-catalyzed procedure (see scheme).

Confined Nanocatalysts

Q. Yue, M. H. Wang, J. Wei, Y. H. Deng,* T. Y. Liu, R. C. Che, B. Tu, D. Y. Zhao* ——— **10368 – 10372**

A Template Carbonization Strategy to Synthesize Ordered Mesoporous Silica Microspheres with Trapped Sulfonated Carbon Nanoparticles for Efficient Catalysis

A facile template carbonization strategy has been used for the synthesis of ordered mesoporous silica microspheres with sulfonated carbon nanoparticles trapped inside by combining solvent-evaporation-induced aggregating assembly, in situ carbonization, and sulfonation treatments. The obtained SO_3H-bearing microspheres show an excellent catalytic performance in the condensation reaction of benzaldehyde with ethylene glycol.

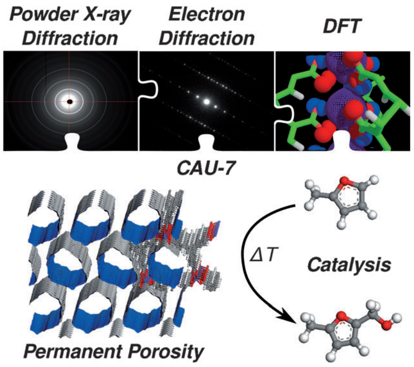


Metal–Organic Frameworks

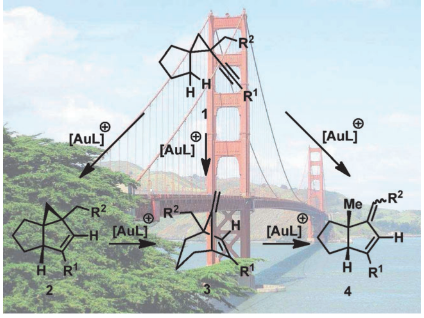
M. Feyand, E. Mugnaioli, F. Vermoortele, B. Bueken, J. M. Dieterich, T. Reimer, U. Kolb,* D. de Vos, N. Stock* ——— **10373 – 10376**

Automated Diffraction Tomography for the Structure Elucidation of Twinned, Submicrometer Crystals of a Highly Porous, Catalytically Active Bismuth Metal–Organic Framework

A combined approach: A permanent highly porous bismuth-containing metal–organic framework (CAU-7) has been synthesized and its structure determined by a combination of electron diffraction, Rietveld refinement, and DFT calculations. The compound is catalytically active in the hydroxymethylation of furan (see picture).



A Golden Gate: Alkynylspirocyclopropanes served as a template for the development of gold-catalyzed hydride transfer from unactivated C(sp^3)—H bonds to electronically neutral alkynes. A variety of interesting carbocyclic structures can be accessed selectively with the appropriate choice of the reaction conditions. Mechanistic studies support a sequential gold-catalyzed cleavage of C—H and C—C bonds.



Gold Catalysis

J. Barluenga,* R. Sigüeiro, R. Vicente,
A. Ballesteros,* M. Tomás,
M. A. Rodríguez ———— **10377 – 10381**

Gold-Catalyzed Functionalization of Unactivated C(sp^3)—H Bonds by Hydride Transfer Facilitated by Alkynylspirocyclopropanes

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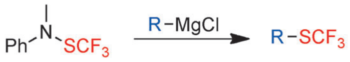

It's so easy! Direct trifluoromethanesulfanylation reactions remain difficult to perform because of the lack of reagents that are stable and easy to handle. Trifluoromethanesulfanamides are reagents which, in combination with readily available Grignard reagents, can be used by those without experience in fluorine chemistry to easily synthesize trifluoromethylthioethers.

Organometallic Chemistry

F. Baert, J. Colomb,
T. Billard* ———— **10382 – 10385**

Electrophilic Trifluoromethanesulfanylation of Organometallic Species with Trifluoromethanesulfanamides

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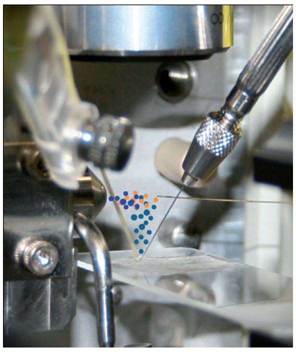


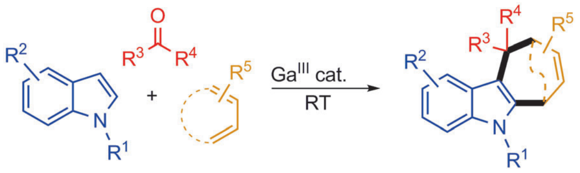
Getting to the point: Cell microdissection and analysis by the title technique was used to study the compartmentalization of metabolites within subcellular domains. Experiments performed on plant epidermal cells imply that there are significant differences between the metabolite composition in the nucleus and the cytoplasm. This technique is applicable to other cell types and may give insight into the mechanisms of disease and drug delivery.

Analytical Methods

J. A. Stolee, B. Shrestha, G. Mengistu,
A. Vertes* ———— **10386 – 10389**

Observation of Subcellular Metabolite Gradients in Single Cells by Laser Ablation Electrospray Ionization Mass Spectrometry

Back Cover



Direct approach to indoles: The title reaction generates cyclohepta[*b*]indole derivatives in a single step at room temperature (see scheme). Exclusion of air or moisture is not required. DFT calculations support a stepwise cyclization event, and the versatility of the method is demonstrated by providing quick access to a library of cyclohepta[*b*]indole analogues.

Heterocycles

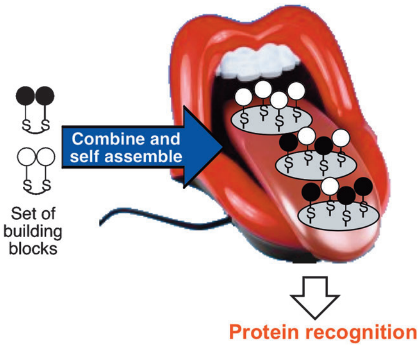
X. Han, H. Li, R. P. Hughes,
J. Wu* ———— **10390 – 10393**

Gallium(III)-Catalyzed Three-Component (4+3) Cycloaddition Reactions

Biosensors

Y. Hou,* M. Genua, D. Tada Batista, R. Calemczuk, A. Buhot, P. Fornarelli, J. Koubachi, D. Bonnaffé,* E. Saesen, C. Laguri, H. Lortat-Jacob, T. Livache* **10394 – 10398**

Continuous Evolution Profiles for Electronic-Tongue-Based Analysis

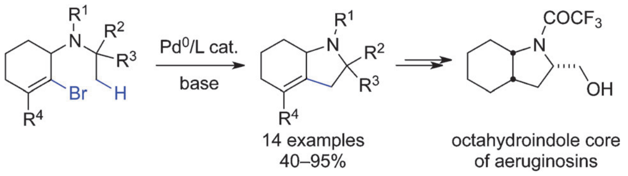


Licking the problem: A new type of electronic tongue was constructed by self-assembly on the surface of a surface plasmon resonance (SPR) imaging prism with combinations of simple building blocks. The resulting combinatorial array was used to detect proteins in solution (see scheme) by using SPR imaging to monitor the interactions. The signal from each spot was dependent on its composition and the protein infused, and correlated with the response of its neighbors.

C–H Activation

J. Sofack-Kreutzer, N. Martin, A. Renaudat, R. Jazzar, O. Baudoin* **10399 – 10402**

Synthesis of Hexahydroindoles by Intramolecular C_{sp^3}–H Alkenylation: Application to the Synthesis of the Core of Aeruginosins

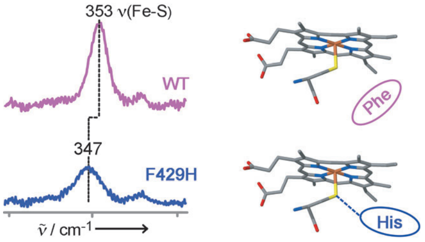


Give me five: Pd-catalyzed intramolecular C_{sp^3}–H arylations have been successfully extended to alkenylations. This method shows remarkable selectivity and gives synthetically useful hexahydroindoles, as illustrated with the synthesis of the octahydroindole core of the aeruginosin family of natural products (see picture).

Proximal Side Control

P. J. Mak, Y. Yang, S.-C. Im, L. A. Waskell,* J. R. Kincaid* **10403 – 10407**

Experimental Documentation of the Structural Consequences of Hydrogen-Bonding Interactions to the Proximal Cysteine of a Cytochrome P450

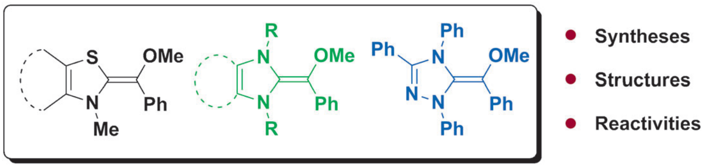


Reactivity control: Resonance Raman spectroscopy is used to document, for the first time, a 6 cm^{-1} decrease of the Fe–S stretch by introducing an H-bond donor into the proximal pocket of a cytochrome P450, which interacts with the cysteine thiolate axial ligand (see picture). The anticipated *trans*-effect on bound exogenous ligands is also confirmed.

Organocatalysis

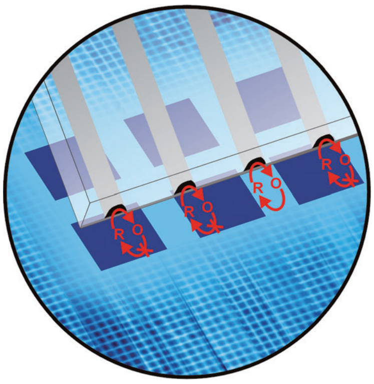
B. Maji, H. Mayr* **10408 – 10412**

Structures and Reactivities of O-Methylated Breslow Intermediates



As close as you can get: Since Breslow intermediates usually exist in their keto form, their O-protected tautomers may be considered as their closest isolable relatives. A series of these compounds have been synthesized, their structures determined, and the kinetics of their reactions with electrophiles investigated.

Reagents were generated locally on an array of eight individually addressable electrodes in order to modify self-assembled monolayers. Since the array was manufactured in a soft polymer material, it can have mechanical contact with a delicate sample without inducing defects. Lengthy leveling procedures are not necessary and the scan times can be shortened.



Self-Assembled Monolayers

Supporting information is available on www.angewandte.org (see article for access details).

A video clip is available as Supporting Information on www.angewandte.org (see article for access details).

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Angewandte Addition

The authors of this Communication wish to add the following acknowledgement:

"[**] Financial support from the Deutsche Forschungsgemeinschaft is gratefully acknowledged."

Reaction of Frustrated Lewis Pairs with Conjugated Ynones—Selective Hydrogenation of the Carbon–Carbon Triple Bond

B.-H. Xu, G. Kehr, R. Fröhlich,
B. Wibbeling, B. Schirmer, S. Grimme,
G. Erker* __________ **7183–7186**

Angew. Chem. Int. Ed. **2011**, *50*

DOI: 10.1002/anie.201101051

Angewandte Corrigendum

The Benzyne Aza-Claisen Reaction

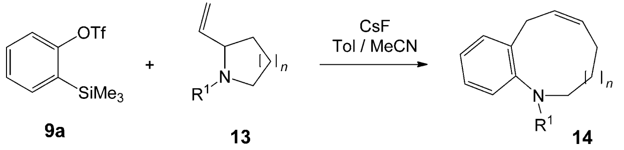
A. A. Cant, G. H. V. Bertrand,
J. L. Henderson, L. Roberts,
M. F. Greaney* **5199–5202**

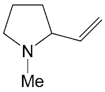
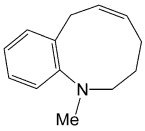
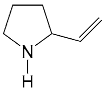
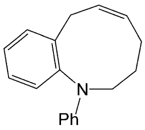
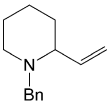
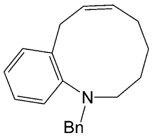
Angew. Chem. Int. Ed. **2009**, *48*

DOI: 10.1002/anie.200901410

Compounds **14a**, **14b**, and **14c** in Table 3 of this communication were incorrectly reported as having the alkene *E* configuration. The correct configuration is *Z*. The correct table is shown below and a revised Supporting Information accompanies this corrigendum. The authors apologize for this mistake.

Table 3: Synthesis of medium-ring amines using the benzyne aza-Claisen rearrangment.[a]



Entry	Amine		Product		Yield [%][b]
1		**13a**		**14a**	41
2[c]		**13b**		**14b**	40
3		**13c**		**14c**	28

[a] Reaction conditions: *o*-trimethylsilylphenyl triflate (1 equiv), amine (1.5 equiv), and CsF (3 equiv) in toluene (0.75 mL) and MeCN (0.25 mL). Reactions were carried out on a 0.2 mmol scale and were stirred for 24 hours at room temperature and then heated at reflux for 48 hours in a sealed tube. [b] Yield of isolated product. [c] 2 equivalents of *o*-trimethylsilylphenyl triflate to 1 equivalent of amine was used. Bn = benzyl.