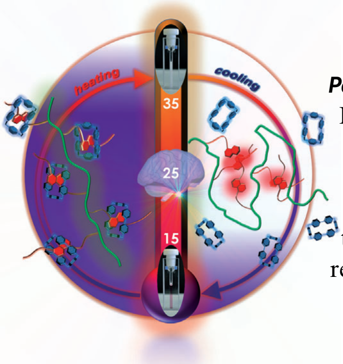
Neither leaving groups ...

... nor catalysts are required for the electrochemical phenol–phenol cross-coupling reaction that is described by S. Waldvogel et al. in their Communication on page 5210 ff. The key to this sustainable synthetic method is the combination of diamond electrodes and a solvent mixture that exhibits an unusual capability of hydrogen bonding. The desired nonsymmetric 2,2′-biphenols could be constructed from simple substrates without the generation of reagent waste.

Single-Molecule Biosensors

The real-time, label-free biodetection of H1N1 viruses with single-molecule sensitivity by using Si nanowires as local reporters in combination with microfluidics is presented by M. Yao, L. Li, X. Guo et al. in their Communication on pp. 5038 ff.

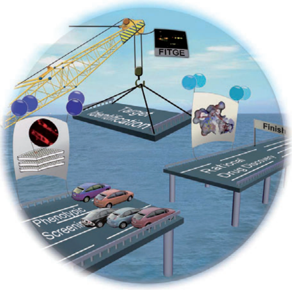


Polymeric Thermometers

P. Woisel, R. Hoogenboom, G. Cooke et al. describe in their Communication on page 5044 ff., the development of a (re)programmable thermometer that memorizes the thermal history of the solution and provides an associated visible readout.

Target Identification

In their Communication on page 5102 ff., S. B. Park et al. show that the convergent strategy of phenotype screening with early stage target identification can bridge the gap between phenotype-based hit discovery and rational drug discovery to generate a new class of therapeutic agents.



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Author Profile

"My favorite saying is 'Easy' doesn't enter into grown-up life".
I admire prudence …"
This and more about Jan J. Weigand can be found on page 5002.

News

R. M. Crooks

G. L. Richmond

M. E. Meyerhoff

J. T. Hupp

Books

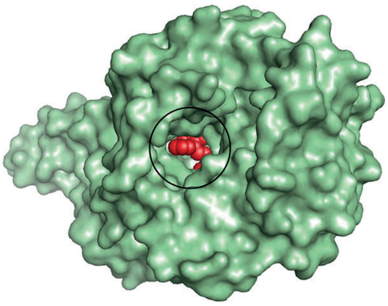
Highlights

Drug Design

S. Cuboni, F. Hausch* ______ **5008 – 5009**

Snapshot of Antidepressants at Work: The Structure of Neurotransmitter Transporter Proteins

In the sweet spot: Cocrystal structures of engineered neurotransmitter transporters reveal the binding mode of commonly prescribed antidepressants, providing a basis for a rational drug design for this class of proteins. The picture shows the structure of the dopamine transporter of *Drosophila melanogaster* in complex with the antidepressant nortriptyline.

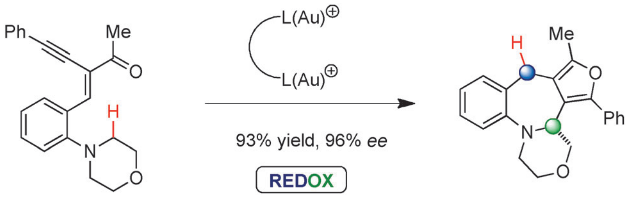


Reviews

C–H Functionalization

M. C. Haibach, D. Seidel* __ **5010 – 5036**

C–H Bond Functionalization through Intramolecular Hydride Transfer



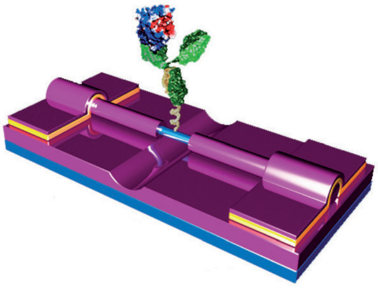
Known for over a century, reactions based on intramolecular hydride transfer have experienced a recent resurgence. Hydride shifts represent an attractive avenue for C–H bond functionalization and the redox-neutral nature of these transformations makes them ideal for the development of sustainable reactions. This Review summarizes recent progress in this field and highlights key historical contributions.

Communications

Single-Molecule Biosensors

J. Wang, F. Shen, Z. Wang, G. He, J. Qin, N. Cheng, M. Yao,* L. Li,* X. Guo* ________________ **5038 – 5043**

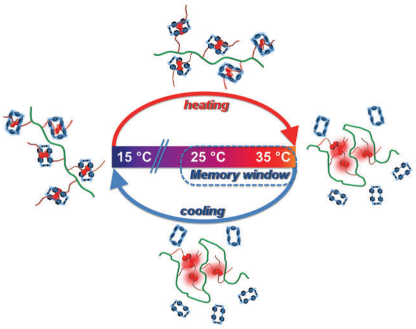
Point Decoration of Silicon Nanowires: An Approach Toward Single-Molecule Electrical Detection



A bioassay design involving lithographically integrating point scattering sites into electrical circuits is capable of realizing real-time, label-free biodetection of H1N1 viruses with single-molecule sensitivity and high selectivity by using Si nanowires as local reporters in combination with microfluidics. This architecture is complementary to conventional optical techniques but has the advantages of no bleaching or fluorescent labeling.

Frontispiece

For the USA and Canada:
ANGEWANDTE CHEMIE International Edition (ISSN 1433-7851) is published weekly by Wiley-VCH, PO Box 191161, 69451 Weinheim, Germany. US mailing agent: SPP, PO Box 437, Emigsville, PA 17318. Periodicals postage paid at Emigsville, PA. US POSTMASTER: send address changes to *Angewandte Chemie*, John Wiley & Sons Inc., C/O The Sheridan Press, PO Box 465, Hanover, PA 17331. Annual subscription price for institutions: US$ 11.738/10.206 (valid for print and electronic / print or electronic delivery); for individuals who are personal members of a national chemical society prices are available on request. Postage and handling charges included. All prices are subject to local VAT/sales tax.



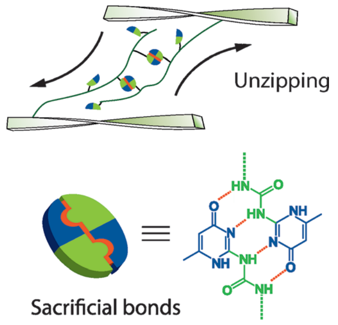
A polymeric thermometer with a visual read-out is based on the supramolecular interaction between a poly(*N*-isopropylacrylamide) copolymer with naphthalene side chains and the tetracationic macrocycle cyclobis(paraquat-*p*-phenylene) tetrachloride. This supramolecular thermometer is (re)programmable and exhibits a memory for the thermal history of the solution.

Polymeric Thermometers

L. Sambe, V. R. de La Rosa, K. Belal, F. Stoffelbach, J. Lyskawa, F. Delattre, M. Bria, G. Cooke,* R. Hoogenboom,* P. Woisel* ________ **5044 – 5048**

Programmable Polymer-Based Supramolecular Temperature Sensor with a Memory Function

Inside Back Cover



One-component nanocomposites involving colloidal nanorod cores bound together by polymeric grafts containing a set of supramolecular binding units were fabricated (see picture). This architecture demonstrates fracture energy dissipation for tough biomimetic materials.

Biomimetic Nanocomposites

J. R. McKee, J. Huokuna, L. Martikainen, M. Karesoja, A. Nykänen, E. Kontturi, H. Tenhu, J. Ruokolainen,* O. Ikkala* ________ **5049 – 5053**

Molecular Engineering of Fracture Energy Dissipating Sacrificial Bonds Into Cellulose Nanocrystal Nanocomposites

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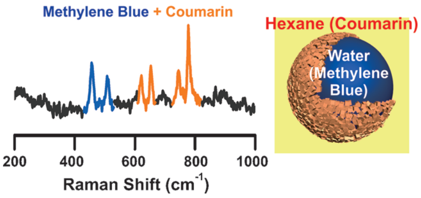

Taking all the marbles: Plasmonic liquid marbles are used in conjunction with surface-enhanced Raman spectroscopy for the simultaneous multiplex quantification and identification of ultratrace analytes across separate phases (see picture) with a detection limit as low as 0.3 fmol, which corresponds to an analytical enhancement factor of 5×10^8. The results quantitatively tally with those obtained for the individual detection of the analytes.

Multiplex Detection

H. K. Lee, Y. H. Lee, I. Y. Phang, J. Wei, Y. Miao, T. Liu, X. Y. Ling* __ **5054 – 5058**

Plasmonic Liquid Marbles: A Miniature Substrate-less SERS Platform for Quantitative and Multiplex Ultratrace Molecular Detection

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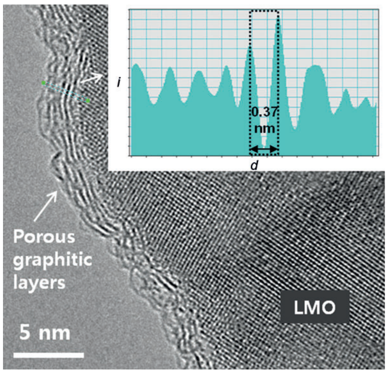


Electroactive materials: By coating nanoparticular lithium manganese oxide (LMO) with a few graphitic layers (see picture; d = distance, h = height), the capacity of the material reached up to 220 mA h g^{-1} at a cutoff voltage of 2.5 V. The graphitic layers provided an electron-transfer highway without hindering ion access and stabilized the structural distortion in the 3 V region.

Nanocomposites

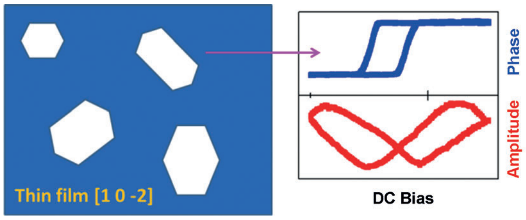
H. K. Noh,* H.-S. Park, H. Y. Jeong, S. U. Lee, H.-K. Song* ______ **5059 – 5063**

Doubling the Capacity of Lithium Manganese Oxide Spinel by a Flexible Skinny Graphitic Layer

Molecular Ferroelectrics

Y. Zhang, Y. M. Liu, H.-Y. Ye, D.-W. Fu, W. X. Gao, H. Ma, Z. G. Liu, Y. Y. Liu, W. Zhang, J. Y. Li, G. L. Yuan,* R.-G. Xiong* ______ **5064 – 5068**

A Molecular Ferroelectric Thin Film of Imidazolium Perchlorate That Shows Superior Electromechanical Coupling



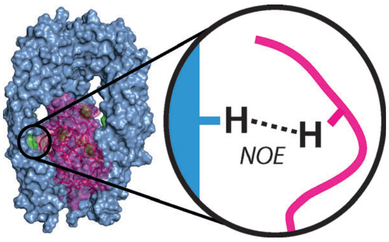
Molecular ferroelectric thin films and block crystals along crystal face (10$\bar{2}$) of imidazolium perchlorate display perfect hexagonal domains similar to that of the trigonal crystal system $LiNbO_3$. The high spontaneous polarization, high Curie temperature, low coercivity, and superior electromechanical coupling make it a molecular alternative to perovskite ferroelectric films.

Protein NMR Spectroscopy

M. Callon, B. M. Burmann, S. Hiller* ______ **5069 – 5072**

Structural Mapping of a Chaperone–Substrate Interaction Surface

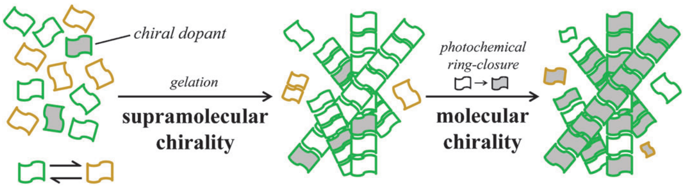
Measurements of intermolecular NOEs between a well-folded chaperone molecule and its unfolded substrate ensemble permit determination of the interaction surface at the atomic level. Resolution of the peaks is enabled by a specialized isotope-labeling scheme for the two proteins. The approach is demonstrated on the Skp–tOmpA complex.



Chiral Amplification

D. J. van Dijken, J. M. Beierle, M. C. A. Stuart, W. Szymański, W. R. Browne, B. L. Feringa* **5073 – 5077**

Autoamplification of Molecular Chirality through the Induction of Supramolecular Chirality

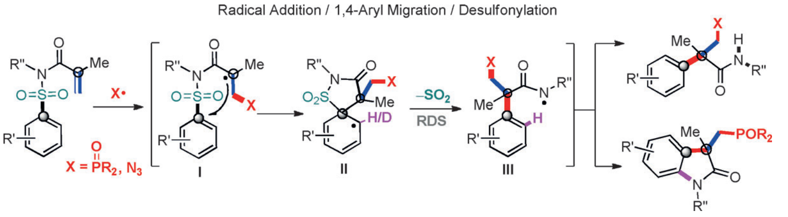


There and back again: Doping a mixture of rapidly interconverting prochiral, open diarylethenes (left) with their enantiopure, closed counterparts, led to formation of gel fibers of preferred helicity (center). This supramolecular chirality was transferred to the molecular level by photochemical ring closing, thus yielding a chiral product (right) which is enriched in the enantiomer originally used as a template.

Alkene Difunctionalization

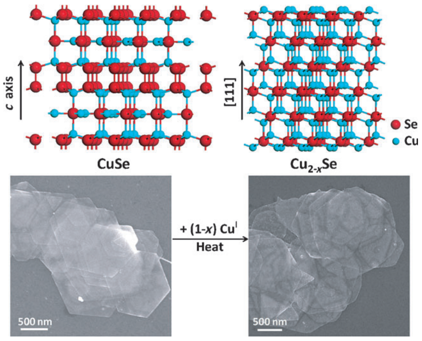
W. Kong, E. Merino, C. Nevado* ______ **5078 – 5082**

Arylphosphonylation and Arylazidation of Activated Alkenes



Radical difunctionalization: The addition of heteroatom-centered radicals to the double bond of arylsulfonyl acrylamides furnishes alkyl radical intermediates. A reaction cascade is then triggered so that α-aryl-β-heterofunctionalized amides with a quaternary stereocenter are obtained by the simultaneous formation of C–C and C–P/C–N bonds across the double bond. Heterofunctionalized oxindoles can also be synthesized.

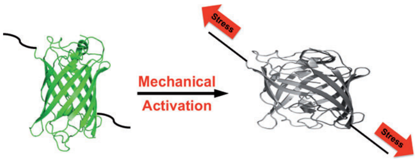
Not fazed by change: A facile solution-based strategy was used for the preparation of microsized CuSe nanosheets. As-prepared CuSe with a hexagonal phase was transformed into $Cu_{2-x}Se$ with a cubic phase through simple treatment with heat without damaging the shape of the original 2D nanosheets (see picture). The two kinds of nanosheets show different optical properties and are both promising building blocks for the construction of various devices.



Nanostructures

X.-J. Wu, X. Huang, J. Q. Liu, H. Li, J. Yang, B. Li, W. Huang, H. Zhang* **5083 – 5087**

Two-Dimensional CuSe Nanosheets with Microscale Lateral Size: Synthesis and Template-Assisted Phase Transformation

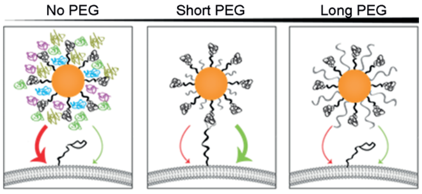


Under pressure: Poly(methyl methacrylate) composites containing either enhanced yellow fluorescent protein (eYFP) or genetically modified green fluorescent protein (GFP; see scheme) exhibited changes in photophysical properties under pressure. Whereas the eYFP composites functioned as ratiometric sensors through shifts in their fluorescence emission wavelengths, the GFP composites were intensiometric and underwent fluorescence quenching under mechanical force.

Mechanobiochemistry

J. N. Brantley, C. B. Bailey, J. R. Cannon, K. A. Clark, D. A. Vanden Bout, J. S. Brodbelt, A. T. Keatinge-Clay,* C. W. Bielawski* ——— **5088 – 5092**

Mechanically Modulating the Photophysical Properties of Fluorescent Protein Biocomposites for Ratio- and Intensiometric Sensors



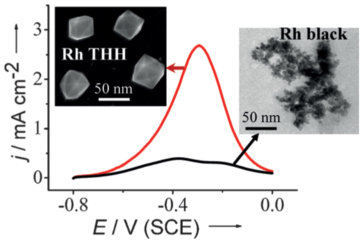
The long and short of it: The adsorption of serum proteins (colored knots) onto targeted nanoparticles (orange circles) can lead to nonspecific cell binding (solid red arrows). Polyethylene glycol (PEG; grey curves) can be used to prevent this; however, long PEG chains can disrupt specific target binding. Shorter PEG chains prevent nonspecific binding without interfering with target recognition (solid green arrow).

Nanoparticle Targeting

Q. Dai, C. Walkey, W. C. W. Chan* ——— **5093 – 5096**

Polyethylene Glycol Backfilling Mitigates the Negative Impact of the Protein Corona on Nanoparticle Cell Targeting

Tetrahexahedral rhodium nanocrystals (THH Rh NCs) with {830} high-index facets and high surface energy were prepared for the first time by electrochemical square-wave-potential method. The THH Rh NCs exhibit greatly enhanced electrocatalytic activity over commercial Rh black catalyst for the electrooxidation of ethanol (see picture) and CO owing to the high density of step atoms.



Electrocatalysts

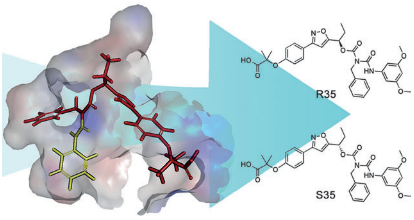
N. F. Yu, N. Tian,* Z. Y. Zhou, L. Huang, J. Xiao, Y.-H. Wen, S. G. Sun* ——— **5097 – 5101**

Electrochemical Synthesis of Tetrahexahedral Rhodium Nanocrystals with Extraordinarily High Surface Energy and High Electrocatalytic Activity

Target Identification

M. Koh, J. Park, J. Y. Koo, D. Lim,
M. Y. Cha, A. Jo, J. H. Choi,
S. B. Park* ______ **5102 – 5106**

Phenotypic Screening to Identify Small-Molecule Enhancers for Glucose Uptake: Target Identification and Rational Optimization of Their Efficacy



A phenotype-based discovery of initial hits enhances the cellular glucose uptake in myotubes and adipocytes. The target identification and rational optimization of initial hits can generate lead compounds with high potency for PPARγ transactivation and cellular glucose uptake. The chirality of optimized ligands differentiated their biophysical and biochemical activities toward PPARγ.

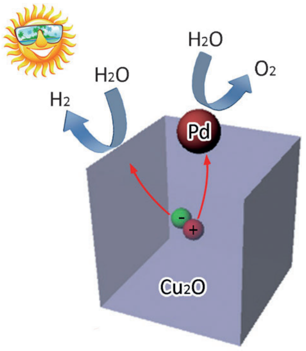
Back Cover

Photocatalysis

L. Wang, J. Ge, A. Wang, M. Deng,
X. Wang, S. Bai, R. Li, J. Jiang,* Q. Zhang,*
Y. Luo, Y. Xiong* ______ **5107 – 5111**

Designing p-Type Semiconductor–Metal Hybrid Structures for Improved Photocatalysis

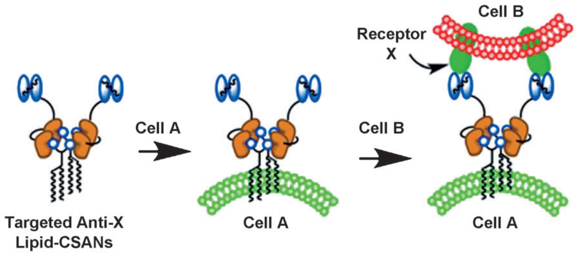
Surface facets matter: Palladium-decorated Cu_2O microcrystals exhibit a capability of producing hydrogen from pure water under visible irradiation with well-designed surface facets. This feat is otherwise hard to attain by other Cu_2O-based counterparts.



Synthetic Biology

K. Gabrielse, A. Gangar, N. Kumar,
J. C. Lee, A. Fegan, J. J. Shen, Q. Li,
D. Vallera, C. R. Wagner* ___ **5112 – 5116**

Reversible Re-programing of Cell–Cell Interactions

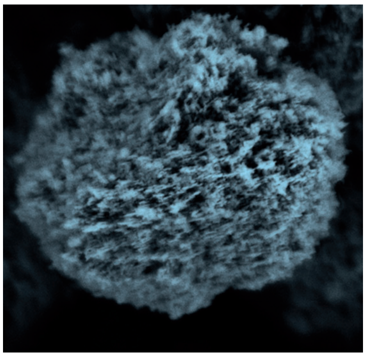


Lipid chemically self-assembled nanorings (lipid-CSANs) can be used for the stable and reversible modification of any cell surface with a molecular reporter or targeting ligand. In the presence of the antibacterial drug trimethoprim the nanorings were quickly disassembled and the cell–cell interactions reversed.

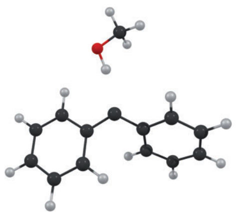
Mesostructures

C. Jo, Y. Seo, K. Cho, J. Kim, H. S. Shin,
M. Lee, J.-C. Kim, S. O. Kim, J. Y. Lee,
H. Ihee, R. Ryoo* ______ **5117 – 5121**

Random-Graft Polymer-Directed Synthesis of Inorganic Mesostructures with Ultrathin Frameworks



In the right direction: Mesostructured inorganic materials, such as zeolite nanosponge, TiO_2 nanosheets, and nanosponges of TiO_2, SnO_2, and ZrO_2 were synthesized using amorphous polymers as the structure-directing agent. Many of these materials possessed quite uniform mesopores. Some of them even exhibited small-angle X-ray diffraction. The structure-directing mechanism is also presented.



Carbene solvation: Unlike the triplet, the singlet state of diphenylcarbene forms an exceptionally strong hydrogen bond with methanol (see picture). This leads to an unprecedented triplet-to-singlet ground-state spin switching.

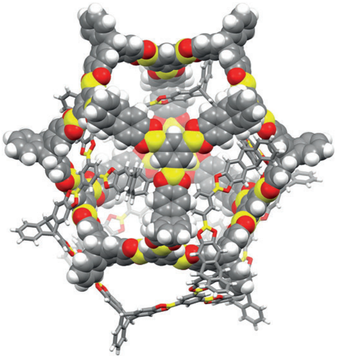
Hydrogen Bonds

P. Costa, W. Sander* ______ **5122–5125**

Hydrogen Bonding Switches the Spin State of Diphenylcarbene from Triplet to Singlet

---

Two is better than one: During the crystallization of a giant shape-persistent organic cage compound, a dimeric catenated structure is formed by a 96-fold condensation reaction of 40 molecular subunits. The crystals of the molecular catenane contain one intrinsic mesopore (2.0 nm) and one extrinsic micropore (1.3 nm).



Porous Cage Catenanes

G. Zhang, O. Presly, F. White, I. M. Oppel, M. Mastalerz* ______ **5126–5130**

A Shape-Persistent Quadruply Interlocked Giant Cage Catenane with Two Distinct Pores in the Solid State

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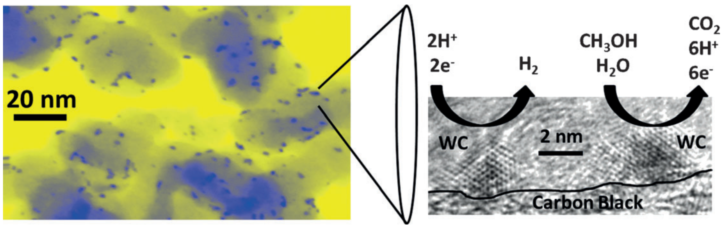


A removable ceramic coating method is used to generate metal-terminated transition-metal carbide nanoparticles with strict control over size, composition, and crystal phase. Tungsten carbide and molybdenum tungsten carbide nanoparticles in the 1–4 nm range achieve activities 100-fold higher than commercial carbides and within an order of magnitude of platinum-based catalysts for the hydrogen evolution and methanol electrooxidation reactions.

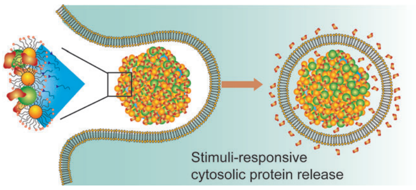
Electrocatalysis

S. T. Hunt, T. Nimmanwudipong, Y. Román-Leshkov* ______ **5131–5136**

Engineering Non-sintered, Metal-Terminated Tungsten Carbide Nanoparticles for Catalysis

---

Multifunctional nanocapsules: Multifunctional nanoparticle-stabilized capsules (NPSCs) have been fabricated by using a set of orthogonal supramolecular interactions. The resultant supramolecular nanocapsules feature dual-delivery capability of proteins and hydrophobic endosome-disrupting agents to allow stimuli-responsive protein release into the cytosol with fluorescence monitoring.



Multifunctional Nanocapsules

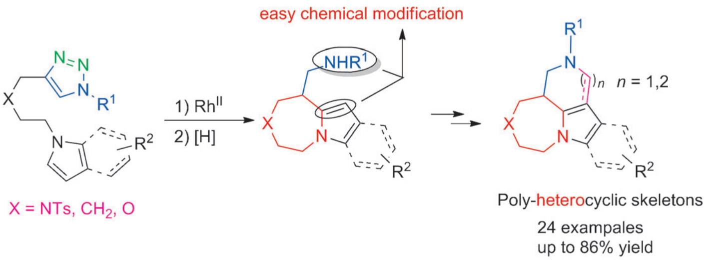
Y.-C. Yeh, R. Tang, R. Mout, Y. Jeong, V. M. Rotello* ______ **5137–5141**

Fabrication of Multiresponsive Bioactive Nanocapsules through Orthogonal Self-Assembly

Heterocycle Synthesis

J.-M. Yang, C.-Z. Zhu, X.-Y. Tang,*
M. Shi* ________________ 5142–5146

Rhodium(II)-Catalyzed Intramolecular Annulation of 1-Sulfonyl-1,2,3-Triazoles with Pyrrole and Indole Rings: Facile Synthesis of N-Bridgehead Azepine Skeletons

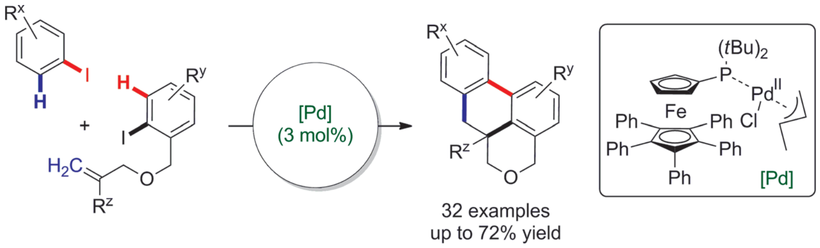


Heads up: A convenient and efficient synthetic method of highly functionalized N-bridgehead azepine skeletons was developed using a rhodium(II)-catalyzed intramolecular annulation of pyrrolyl and indolyl triazoles. Several interesting transformations of the products into poly-heterocyclic products and the reaction mechanism are disclosed. Ts = 4-toluenesulfonyl.

C–H Activation

M. Sickert, H. Weinstabl, B. Peters,
X. Hou, M. Lautens* ________ 5147–5151

Intermolecular Domino Reaction of Two Aryl Iodides Involving Two C–H Functionalizations



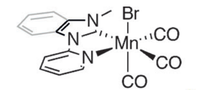
Pendulum Reaction: *1* Pd complex catalyzes the intermolecular reaction of *2* aryl iodides to form *3* new C–C bonds through *2* C–H activations and *1* carbopalladation. The intermolecular domino reaction of two aryl iodides gives fused biaryls with a high level of convergence and efficiency. The key to success lies in the choice of an appropriate bulky Pd catalyst, which allows the aryl iodides to be distinguished in the key step.

Electrocatalysis

J. Agarwal,* T. W. Shaw, C. J. Stanton III,
G. F. Majetich, A. B. Bocarsly,
H. F. Schaefer III ____________ 5152–5155

NHC-Containing Manganese(I) Electrocatalysts for the Two-Electron Reduction of CO$_2$

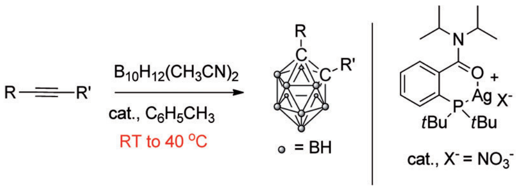
Catalytic manganese N-heterocyclic carbene complexes have been synthesized and characterized: [MnBrL(CO)$_3$] (see scheme; L = *N*-methyl-*N*′-2-pyridylbenzimidazol-2-ylidine or *N*-methyl-*N*′-2-pyridylimidazol-2-ylidine). Both species mediate the reduction of CO$_2$ to CO following two-electron reduction of the Mn^I center at a single potential, as observed with preparative scale electrolysis and verified with ^{13}CO$_2$.



Cluster Compounds

M. E. El-Zaria, K. Keskar, A. R. Genady,
J. A. Ioppolo, J. McNulty,
J. F. Valliant* ______________ 5156–5160

High Yielding Synthesis of Carboranes Under Mild Reaction Conditions Using a Homogeneous Silver(I) Catalyst: Direct Evidence of a Bimetallic Intermediate

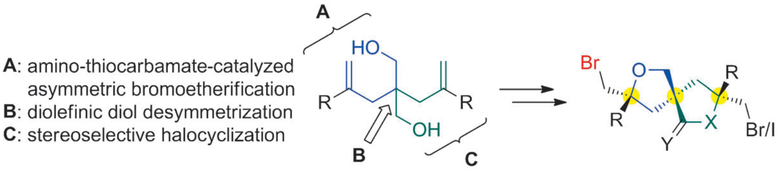


Cluster around: Current methods to prepare carboranes require heating to high temperatures, thereby limiting the range of derivatives which can be prepared from functionalized alkynes. By using a Ag^I catalyst it is possible to prepare carboranes from substituted alkynes in good to excellent yields at temperatures below 40 °C, including room temperature. The approach provides an important new synthetic strategy for the preparation of functionalized boron clusters.

Asymmetric Catalysis

D. W. Tay, G. Y. C. Leung,
Y.-Y. Yeung* ________ 5161 – 5164

Desymmetrization of Diolefinic Diols by Enantioselective Amino-thiocarbamate-Catalyzed Bromoetherification: Synthesis of Chiral Spirocycles

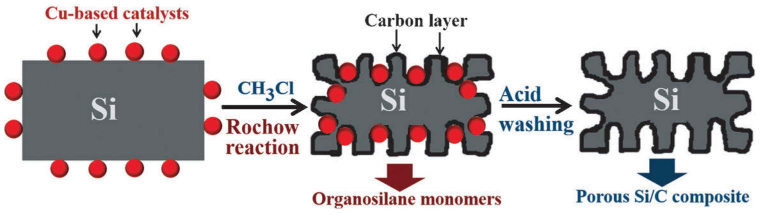


Seeing double: A facile, efficient, and highly diastereo- and enantioselective bromoetherification of diolefinic diols has been developed using an amino-thiocarbamate catalyst. Further manipulations of the bromoether products enabled entry into a new class of spirocycles, having three stereogenic quaternary carbon centers, which are distinctively lacking in the literature.

Anode Materials

Z. Zhang, Y. Wang, W. Ren, Q. Tan,
Y. Chen, H. Li, Z. Zhong,
F. Su* ________ 5165 – 5169

Scalable Synthesis of Interconnected Porous Silicon/Carbon Composites by the Rochow Reaction as High-Performance Anodes of Lithium Ion Batteries

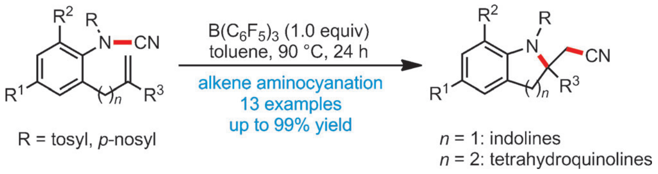


Digging pores: A scalable synthesis route was developed to prepare interconnected porous Si/C composites by the commercialized Rochow reaction using Si microparticles and CH_3Cl gas over the various Cu-based catalysts under the mild reaction conditions. The obtained porous Si/C materials as anodes of Li ion batteries exhibit high electrochemical performance.

Synthetic Methods

Z. Pan, S. M. Pound, N. R. Rondla,
C. J. Douglas* ________ 5170 – 5174

Intramolecular Aminocyanation of Alkenes by N–CN Bond Cleavage



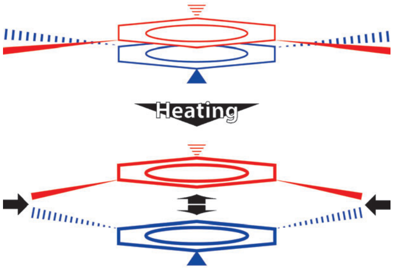
Break free: A Lewis acid promoted intramolecular aminocyanation of alkenes is described. Activation of N-sulfonyl cyanamides by $B(C_6F_5)_3$ leads to cleavage of the N–CN bond in conjunction with vicinal addition of sulfonamide and nitrile groups across an alkene. This method enables rapid and atom-economical access to heterocycles in excellent yields. Mechanistic studies indicate that this transformation proceeds without dissociation of the nitrile.

Negative Thermal Expansion

Y. Wu, V. K. Peterson, E. Luks,
T. A. Darwish, C. J. Kepert* _ 5175 – 5178

Interpenetration as a Mechanism for Negative Thermal Expansion in the Metal–Organic Framework $Cu_3(btb)_2$ (MOF-14)

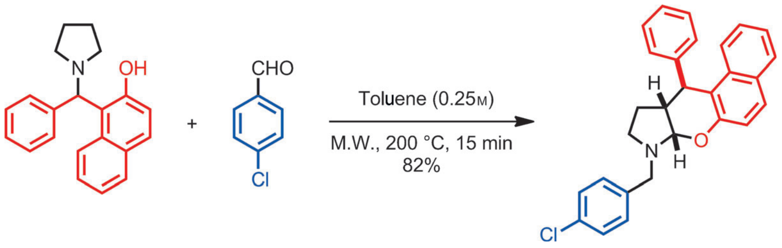
When push comes to pull: A new mechanism for negative thermal expansion is reported. In the metal–organic framework $Cu_3(btb)_2$ (MOF-14; btb = 4,4′,4′′-benzene-1,3,5-triyl-tribenzoate), the large thermal expansion of the weak interactions that hold the two interpenetrating networks together results in a low-energy contractive distortion of the overall framework structure.



C–H Functionalization

W. Chen, Y. Kang, R. G. Wilde,
D. Seidel* ________________ 5179 – 5182

Redox-Neutral α,β-Difunctionalization of Cyclic Amines



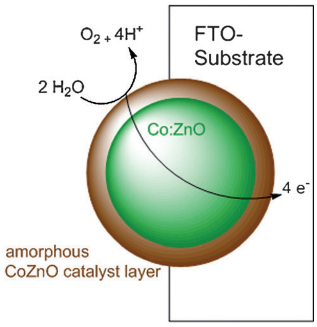
An unprecedented α,β-difunctionalization reaction of amines affords polycyclic N,O-acetals from simple 1-(aminomethyl)-β-naphthols or 2-(aminomethyl)-phenols. These transformations are redox-neutral and proceed in the absence of any additives.

Water Oxidation

J. Pfrommer, M. Lublow, A. Azarpira,
C. Göbel, M. Lücke, A. Steigert,
M. Pogrzeba, P. W. Menezes, A. Fischer,*
T. Schedel-Niedrig,*
M. Driess* ________________ 5183 – 5187

A Molecular Approach to Self-Supported Cobalt-Substituted ZnO Materials as Remarkably Stable Electrocatalysts for Water Oxidation

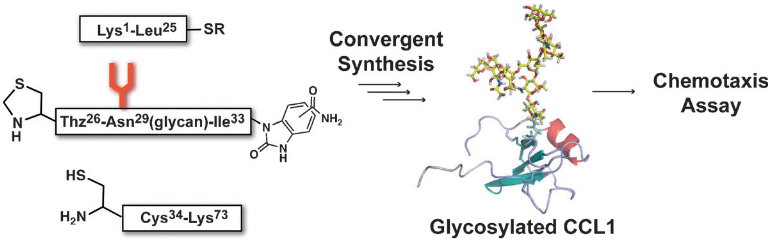
To be self-made: A cobalt-substituted zinc oxide (Co:ZnO) precatalyst was synthesized by low-temperature solvolysis of molecular heterobimetallic $Co_{4-x}Zn_xO_4$ ($x=1$–3) precursors. Electrophoretic deposition onto fluorinated tin oxide (FTO) electrodes leads, after oxidative conditioning, to an amorphous self-supported water-oxidation electrocatalyst that performs at very low overpotentials and with high current density for several hours.



Chemical Protein Synthesis

R. Okamoto,* K. Mandal, M. Ling,
A. D. Luster, Y. Kajihara,
S. B. H. Kent ________________ 5188 – 5193

Total Chemical Synthesis and Biological Activities of Glycosylated and Non-Glycosylated Forms of the Chemokines CCL1 and Ser-CCL1



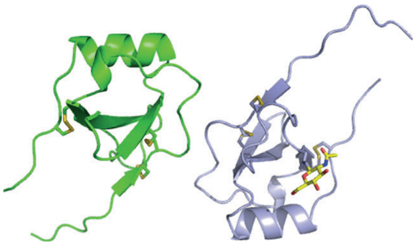
Man-made: Total chemical synthesis was used to prepare glycosylated and non-glycosylated forms of the chemokines CCL1 and Ser-CCL1. In a chemotaxis assay using a CCR8-transfected cell line, non-glycosylated CCL1 was more active than glycosylated CCL1; both non-glycosylated and glycosylated Ser-CCL1 had only minimal activity in the same assay.

Glycoprotein X-ray Structure

R. Okamoto,* K. Mandal, M. R. Sawaya,
Y. Kajihara, T. O. Yeates,
S. B. H. Kent ________________ 5194 – 5198

(Quasi-)Racemic X-ray Structures of Glycosylated and Non-Glycosylated Forms of the Chemokine Ser-CCL1 Prepared by Total Chemical Synthesis

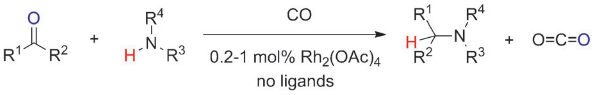
Look into the mirror: The X-ray structure of the chemically synthesized glycoprotein Ser-CCL1 (right in picture) was determined by crystallization as the quasi-racemate with the non-glycosylated mirror image protein D-Ser-CCL1 (left). This enabled comparison of the glycoprotein structure with the corresponding non-glycosylated form of the same protein molecule and showed that glycosylation had no effect on the tertiary structure of the protein moiety.



Atom Economy

D. Chusov,* B. List* ______ **5199–5201**

Reductive Amination without an External Hydrogen Source



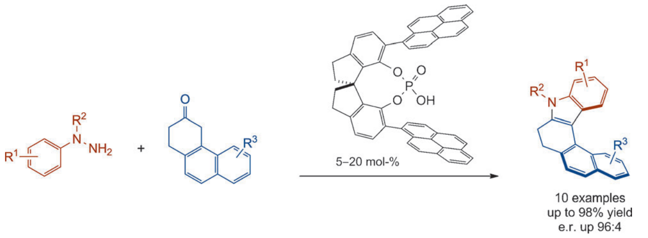
Look, no H$_2$! Reductive amination without an external hydrogen source has been developed using carbon monoxide as the reductant and rhodium acetate (0.2–1 mol %) as catalyst. The method tolerates a variety of functional groups and provides target amines in good to excellent yields.

Helicenes

L. Kötzner, M. J. Webber, A. Martínez, C. De Fusco, B. List* ______ **5202–5205**

Asymmetric Catalysis on the Nanoscale: The Organocatalytic Approach to Helicenes

Inside Cover



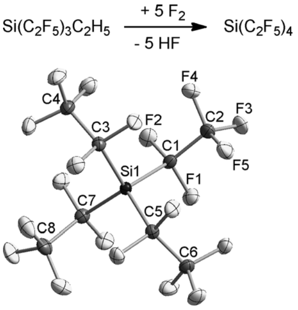
Twisting indoles: A novel chiral Brønsted acid, specifically designed for long-range control on a nanoscale, catalyzes the asymmetric synthesis of azahelicenes through a Fischer indolization. The method has the advantage of starting from simple achiral starting materials, which can be modified by changing the protecting group (R^2) or the terminal substituents (R^1, R^3). The products can be further oxidized to polyaromatic systems.

Direct fluorination

S. Steinhauer, J. Bader, H.-G. Stammler, N. Ignat'ev, B. Hoge* ______ **5206–5209**

Synthesis of Tris- and Tetrakis(pentafluoroethyl)silanes

Special eFfects: functional and highly Lewis acidic tris(pentafluoroethyl)silanes as well as the tetrakis(perfluoroalkyl)silanes Si(C$_2$F$_5$)$_4$ and Si(C$_2$F$_5$)$_3$CF$_3$ are prepared. The two tetrakis species were formed in the direct fluorination of tris(pentafluoroethyl)ethyl- and methylsilane. Si(C$_2$F$_5$)$_4$ was characterized by X-ray crystallography (see figure).

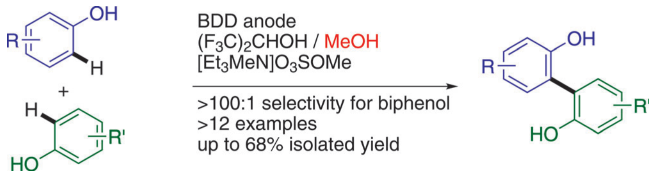


Oxidative Phenol Cross-Coupling

B. Elsler, D. Schollmeyer, K. M. Dyballa, R. Franke, S. R. Waldvogel* ______ **5210–5213**

Metal- and Reagent-Free Highly Selective Anodic Cross-Coupling Reaction of Phenols

Front Cover



Current synthesis: In a highly sustainable access to mixed biphenols, electric current makes the use of reagents, catalysts, and leaving groups obsolete. Solvents with a strong tendency to act as hydrogen-bond donors lead to a unique selectivity for the cross-coupling product.

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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The Very Important Papers, marked VIP, have been rated unanimously as very important by the referees.

The Hot Papers are articles that the Editors have chosen on the basis of the referee reports to be of particular importance for an intensely studied area of research.

Angewandte Corrigendum

A Photocleavable Masked Nuclear-Receptor Ligand Enables Temporal Control of *C. elegans* Development

J. C. Judkins, P. Mahanti,
J. B. Hoffman, I. Yim, A. Antebi,
F. C. Schroeder* ________ **2110–2113**

Angew. Chem. Int. Ed. **2014**, *53*

DOI: 10.1002/anie.201307465

In this Communication, a paper by Kurzchalia and Knölker et al.,[10g] reporting the first synthesis of $\Delta^{1,7}$-dafachronic acid (dafa#3) and its strong biological activity, was omitted. Reference [10] should read as follows:

[10] a) S. Giroux, E. J. Corey, *Org. Lett.* **2008**, *10*, 801 – 802; b) S. Giroux, E. J. Corey, *J. Am. Chem. Soc.* **2007**, *129*, 9866 – 9867; c) S. Giroux, A. Bethke, N. Fielenbach, A. Antebi, E. J. Corey, *Org. Lett.* **2008**, *10*, 3643 – 3645; d) A. Gioiello, P. Sabbatini, E. Rosatelli, A. Macchiarulo, R. Pellicciari, *Tetrahedron* **2011**, *67*, 1924 – 1929; e) R. Martin, F. Däbritz, E. V. Entchev, T. V. Kurzchalia, H. J. Knölker, *Org. Biomol. Chem.* **2008**, *6*, 4293 – 4295; f) R. Martin, E. V. Entchev, F. Däbritz, T. V. Kurzchalia, H.-J. Knölker, *Eur. J. Org. Chem.* **2009**, 3703 – 3714; g) R. Saini, S. Boland, O. Kataeva, A. W. Schmidt, T. V. Kurzchalia, H.-J. Knölker, *Org. Biomol. Chem.* **2012**, *10*, 4159 – 4163.

Angewandte Corrigendum

A Chimeric Siderophore Halts Swarming *Vibrio*

T. Böttcher, J. Clardy* _____ **3510–3513**

Angew. Chem. Int. Ed. **2014**, *53*

DOI: 10.1002/anie.201310729

The authors of this Communication were informed that the structure they established for avaroferrin had been postulated in reference [1] to be that of a minor component in a complex mixture extracted from *Shewanella putrefaciens* under conditions that perturbed its native siderophore biosynthesis on the basis of a mass spectrometric signal at m/z 440.93 (obs.) to 440.14 (calc.).

[1] C. Z. Soe, A. A. H. Pakchung, R. Codd, *Chem. Biodivers.* **2012**, *9*, 1880 – 1890.