



The following Communications have been judged by at least two referees to be “very important papers” and will be published online at [www.angewandte.org](http://www.angewandte.org) soon:

G. A. Zelada, J. Riu,\* A. Düzgün, F. X. Rius\*  
**Immediate Detection of Living Bacteria at Ultra-Low Concentrations Using a Carbon-Nanotube-Based Potentiometric Aptasensor**

H. Ueda, H. Satoh, K. Matsumoto, K. Sugimoto, T. Fukuyama,\* H. Tokuyama\*  
**Total Synthesis of (+)-Haplophytine**

K. Fuchibe, T. Kaneko, K. Mori, T. Akiyama\*  
**Expedient Synthesis of N-Fused Indoles: A C–F Activation and C–H Insertion Approach**

A. Giannis,\* P. Heretsch, V. Sarli, A. Stößel  
**Synthesis of Cycloamine Using a Biomimetic and Diastereoselective Approach**

W. A. Chalifoux, R. McDonald, M. J. Ferguson, R. R. Tykwinski  
***t*-Butyl Endcapped Polyynes: Crystallographic Evidence of Reduced Bond-Length Alternation**

S. T. Scroggins, Y. Chi, J. M. J. Fréchet\*  
**Polarity-Directed One-Pot Asymmetric Cascade Reactions Mediated by Two Catalysts in an Aqueous Buffer**

D. C. K. Rathwell, S.-H. Yang, K. Y. Tsang, M. A. Brimble\*  
**An Efficient Formal Synthesis of the Human Telomerase Inhibitor (±)- $\gamma$ -Rubromycin**

C. A. Strassert,\* M. Otter, R. Q. Albuquerque, A. Höne, Y. Vida, B. Maier, L. De Cola\*  
**Photoactive Hybrid Nanomaterial for Targeting, Labeling, and Killing Antibiotic Resistant Bacteria**

S. H. Wunderlich, M. Kienle, P. Knochel\*  
**Directed Manganation of Functionalized Aromatics and Heterocycles Using  $\text{TMP}_2\text{Mn}\cdot 2\text{MgCl}_2\cdot 4\text{LiCl}$**

R. Hahn, F. Schmidt-Stein, J. Salonen, S. Thiemann, Y. Y. Song, J. Kunze, V.-L. Lehto, P. Schmuki\*  
**Semimetallic  $\text{TiO}_2$  Nanotubes**



“The most significant scientific advances of the last 100 years have been the discovery of penicillin and the development of vaccines for various infections. If I could be anyone for a day, I would be a novelist. ...”

This and more about Masakatsu Shibasaki can be found on page 6944.

## Author Profile

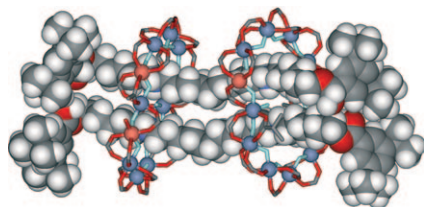
Masakatsu Shibasaki ————— 6944

The Mizoroki–Heck Reaction

Martin Oestreich

## Books

reviewed by C. Frech ————— 6947



**Take this ring ...** Hybrid organic–inorganic rotaxanes can be prepared using a thread incorporating an alkyl ammonium functionality to template the self-assembly of an inorganic wheel cluster. This approach was used to assemble a range of examples, including a system combining two rings and two threads (see picture; C gray, H white, O red, Cu orange, Cr blue-gray, N blue, F light blue).

## Highlights

### Rotaxanes

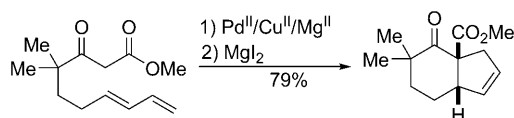
E. K. Brechin,\* L. Cronin\* — 6948–6949

The Marriage of Inorganic and Organic Building Blocks for the Assembly of Rotaxanes

## Bicyclic Cyclopentenes

R. A. Widenhoefer\* — 6950–6952

A Palladium-Catalyzed Formal (4+1) Annulation: A New Approach to Cyclopentene Construction



**Juggling rings:** A novel two-step procedure achieves the formal (4+1) annulation of a conjugated diene with a  $\beta$ -keto ester to form a functionalized cyclopentene in good yield under mild conditions. The transformation involves a palladium-

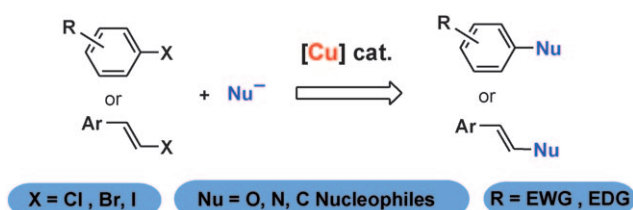
catalyzed intramolecular oxidative cyclopropanation of an  $\varepsilon$ -dienyl  $\beta$ -keto ester followed by magnesium iodide mediated rearrangement of the resulting vinyl cyclopropane.

## Minireviews

### Coupling Reactions

F. Monnier,\* M. Taillefer\* — 6954–6971

Catalytic C–C, C–N, and C–O Ullmann-Type Coupling Reactions



**Back to the future:** Major achievements have been made in copper-catalyzed Ullmann reactions since its renaissance in the early 2000s. This Minireview highlights developments since 2004 in the corresponding intermolecular arylations

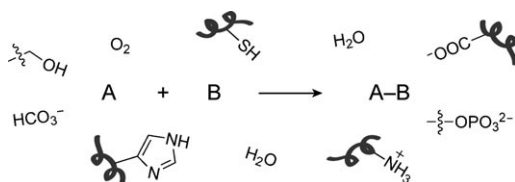
and vinylations of N, O, and C nucleophiles by aromatic and vinyl halides under homogeneous and heterogeneous conditions (see scheme; EWG = electron-withdrawing group, EDG = electron-donating group).

## Reviews

### Bioorthogonal Chemistry

E. M. Sletten,  
C. R. Bertozzi\* — 6974–6998

Bioorthogonal Chemistry: Fishing for Selectivity in a Sea of Functionality



**Being specific:** A combination of selective chemical transformations and methods to modify biological species has yielded new insights into cellular processes. Key to these new techniques are bioorthogonal

chemical reactions, whose components must react rapidly and selectively with each other under physiological conditions in the presence of the plethora of functionality found within living systems.

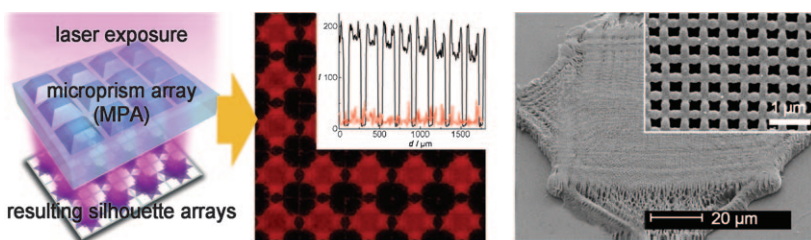
### For the USA and Canada:

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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.

## Communications



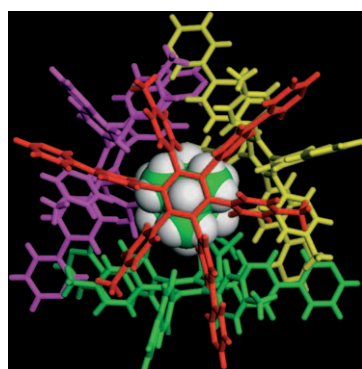
**Through the looking glass:** Holographic lithography through a microprism array enables the production of microstructured arrays with 3D internal nanoscale features (see picture). In a single-step

exposure of 0.1 s, thousands of features are generated in a spot size of about  $1 \text{ cm}^2$ . They exhibit 14-times enhanced fluorescence compared with conventional microarrays.

### Holographic Lithography

S.-K. Lee, H. S. Park, G.-R. Yi, J. H. Moon, S.-M. Yang\* \_\_\_\_\_ **7000–7005**

Holographic Fabrication of Microstructures with Internal Nanopatterns Using Microprism Arrays

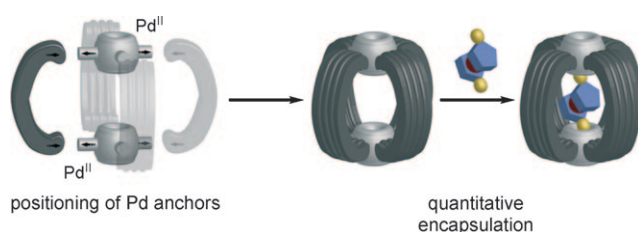


**Fitting in:** Hexagram-shaped amphiphiles self-assemble in the presence of a spherical, hydrophobic guest molecule to form a tetrahedron-shaped tetrameric organic capsule in an aqueous methanol solution (see picture). In the presence of adamantane, an aqueous solution of a box-shaped hexameric capsule composed of hexagram-shaped amphiphiles was converted into a novel 1.7 nm sized tetrameric capsule that has an encapsulated adamantane template molecule.

### Molecular Capsules

S. Hiraoka,\* K. Harano, T. Nakamura, M. Shiro, M. Shionoya\* \_\_\_\_\_ **7006–7009**

Induced-Fit Formation of a Tetrameric Organic Capsule Consisting of Hexagram-Shaped Amphiphile Molecules



**Anchors away!** Four banana-shaped ligands and two  $\text{Pd}^{\text{II}}$  ions assemble quantitatively to form a ball-shaped object with four large portals (see picture). The two  $\text{Pd}^{\text{II}}$  ions form stable, square-planar complexes with the pyridyl donors of the

ligands, but can undergo further interactions with anions. Their positioning in a confined distance by the rigid ligands make them act as electrostatic anchors for dianionic guests of a certain size.

### Anion Recognition

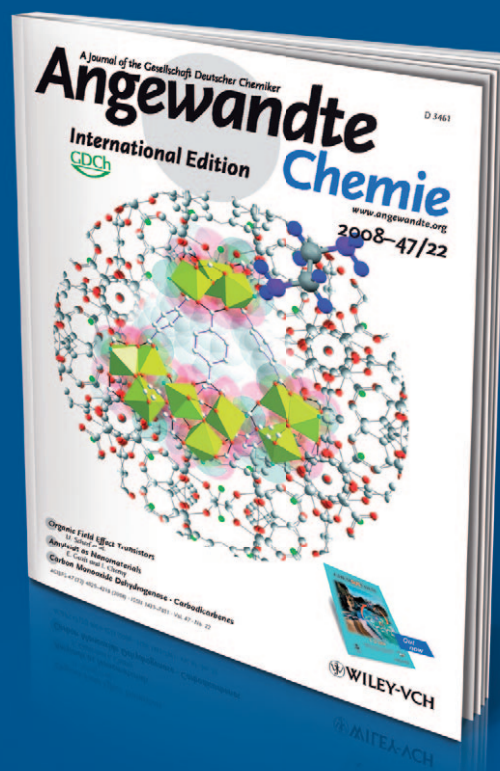
G. H. Clever, S. Tashiro, M. Shionoya\* \_\_\_\_\_ **7010–7012**

Inclusion of Anionic Guests inside a Molecular Cage with Palladium(II) Centers as Electrostatic Anchors



# Incredibly

10.031



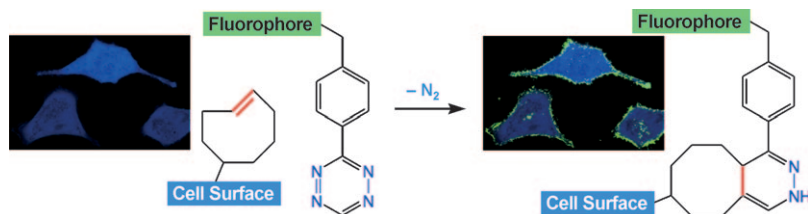
Simply the best! With an **Impact Factor of 10.031 (2007)**, *Angewandte Chemie* is considerably ahead of comparable journals. Such a high value is predominantly a reflection of the high quality of our Communications. The Reviews in *Angewandte Chemie* are unquestionably among the most important articles in their fields, however their contribution to the Impact Factor is much less significant than people tend to assert.



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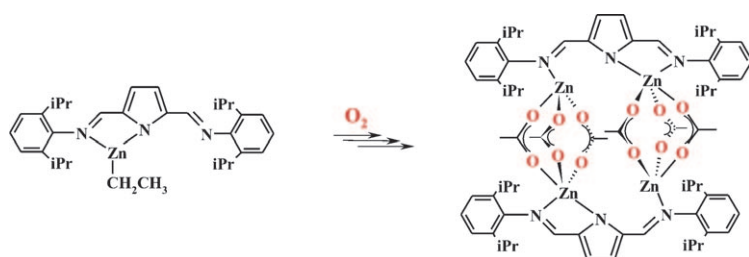
**A label for six, please!** A fluorescent tetrazine derivative was used to image *trans*-cyclooctene-modified affinity ligands on live cancer cells through a bioorthogonal cycloaddition with a reaction rate of approximately

$6000 \pm 200 \text{ M}^{-1} \text{ s}^{-1}$  in serum at  $37^\circ\text{C}$  (see scheme). To maximize the fluorescence signal, up to six *trans*-cyclooctene moieties were attached to the antibody used to pretarget cells for labeling.

### Live-Cell Imaging

N. K. Devaraj, R. Upadhyay, J. B. Haun, S. A. Hilderbrand,\*  
 R. Weissleder\* \_\_\_\_\_ 7013–7016

Fast and Sensitive Pretargeted Labeling of Cancer Cells through a Tetrazine/*trans*-Cyclooctene Cycloaddition



**The controlled oxygenation** of ethylzinc complexed with a tridentate pyrroloimine leads to an unprecedented transformation of the resulting ethylperoxide into an acetate. The zinc acetate appears to form

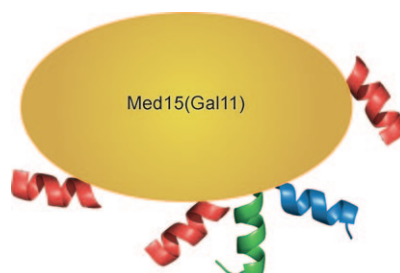
without involvement of redox-active metal centers by a combination of O–O bond activation and multiple rearrangements of  $\text{ZnO}^\bullet$  and  $^\bullet\text{OEt}$  radical species.

### Oxygenation Reactions

J. Lewiński,\* M. Kościński, K. Suwała, I. Justyniak \_\_\_\_\_ 7017–7020

Transformation of Ethylzinc Species to Zinc Acetate Mediated by  $\text{O}_2$  Activation: Reactive Oxygen-Centered Radicals Under Control

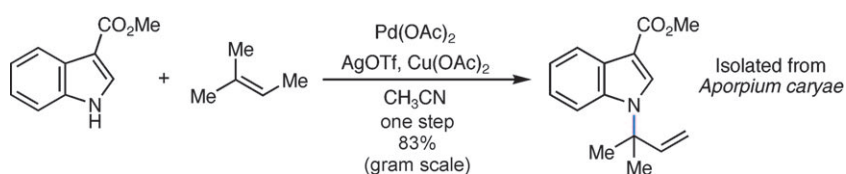
**Binding with distinction:** Photo-cross-linking followed by the complementary use of ESI and MALDI mass spectrometric techniques yielded the interaction sites of three prototypical amphipathic transcriptional activators (represented by different-colored helices in the picture) with the coactivator Med15. Investigation of the functional relevance of these sites in yeast revealed overlapping yet distinct binding patterns for the activators investigated.



### Activator Mapping

C. Y. Majmudar, B. Wang, J. K. Lum, K. Håkansson,\*  
 A. K. Mapp\* \_\_\_\_\_ 7021–7024

A High-Resolution Interaction Map of Three Transcriptional Activation Domains with a Key Coactivator from Photo-Cross-Linking and Multiplexed Mass Spectrometry



**Four steps in one:** The direct prenylation of indoles at N-1 can be achieved by C–H functionalization in the presence of a  $\text{Pd}^{\text{II}}$  source. This reaction proceeds by direct intermolecular olefin amination, tolerates a broad range of functional groups, and

can be carried out on a gram scale, as demonstrated by the formal syntheses of a number of natural products and the synthesis of an antifungal natural product (see scheme).

### Synthetic Methods

M. R. Luzung, C. A. Lewis, P. S. Baran\* \_\_\_\_\_ 7025–7029

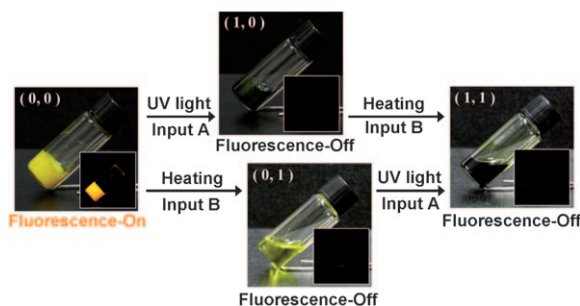
Direct, Chemoselective *N*-*tert*-Prenylation of Indoles by C–H Functionalization

## Fluorescent Organogels

J. W. Chung, S.-J. Yoon, S.-J. Lim, B.-K. An, S. Y. Park\* \_\_\_\_\_ 7030–7034



Dual-Mode Switching in Highly Fluorescent Organogels: Binary Logic Gates with Optical/Thermal Inputs



**An on/off relationship:** A supramolecular binary “OR” logic gate that generates highly enhanced fluorescence emission as the output signal is demonstrated (see

picture). The system comprises a mixture of organogelator and photochromic compound and is able to process dual inputs of UV irradiation and thermal heating.

## Self-Erasing Paper

R. Klajn, P. J. Wesson, K. J. M. Bishop, B. A. Grzybowski\* \_\_\_\_\_ 7035–7039



Writing Self-Erasing Images using Metastable Nanoparticle “Inks”



**Mission Impossible:** Metal nanoparticles (NPs) coated with photoresponsive ligands are used as “inks” for self-erasing “paper” whereby light-induced self-assembly of the NPs is transduced into local color changes (see picture).

Depending on the degree of self-assembly, multicolor images can be written using only one type of NP ink. Duration of image erasure is regulated by the surface concentration of photoactive groups and can range from seconds to days.

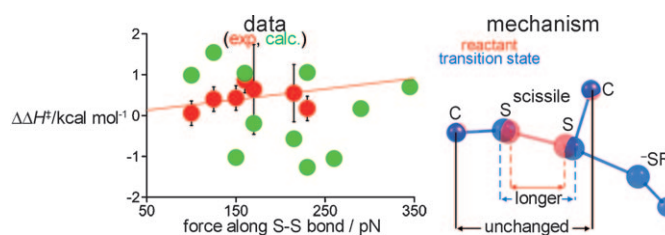


## Force-Dependent Kinetics

T. J. Kucharski, Z. Huang, Q.-Z. Yang, Y. Tian, N. C. Rubin, C. D. Concepcion, R. Boulatov\* \_\_\_\_\_ 7040–7043

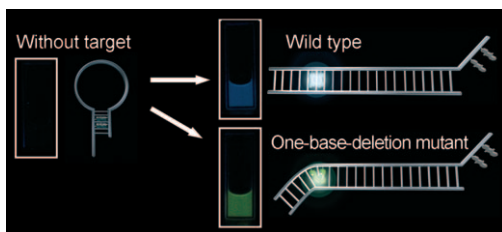


Kinetics of Thiol/Disulfide Exchange Correlate Weakly with the Restoring Force in the Disulfide Moiety



**S-S-Stretch!** A series of increasingly strained macrocyclic disulfides investigated experimentally and by high-level DFT calculations reveals that the kinetics of thiol/disulfide exchange are independent of the restoring force in the disulfide

moiety. This finding is consistent with the S<sub>N</sub>2 mechanism of thiol/disulfide exchange and lends insight into the acceleration of disulfide reduction upon stretching of certain proteins.



**Off means off:** An in-stem molecular beacon in which D-threoinol units tether perylene and anthraquinone in the stem region effectively detected target sequen-

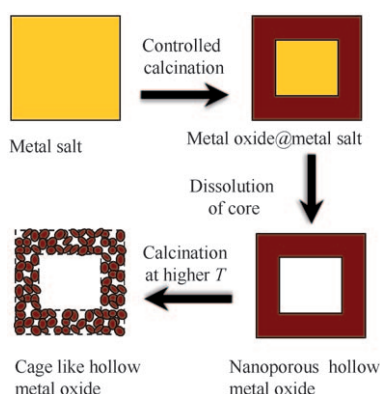
ces and was able to discriminate a one-base-deletion mutant from the wild-type (full-match) sequence without background emission (see picture).

### Fluorescent Probes

H. Kashida, T. Takatsu, T. Fujii,  
 K. Sekiguchi, X. G. Liang, K. Niwa,  
 T. Takase, Y. Yoshida,  
 H. Asanuma\* \_\_\_\_\_ 7044–7047

In-Stem Molecular Beacon Containing a Pseudo Base Pair of Threoinol Nucleotides for the Removal of Background Emission

**A hole in one:** Hollow nanoporous structures are prepared by controlled decomposition–dissolution. The partial thermal decomposition of transition-metal salts forms a metal oxide shell on the surface of the metal salt particles. Acid washing removes the metal salt cores, resulting in hollow nanoporous metal oxide shells (see picture). This new strategy provides a template-free single-source route to hollow structures.



### Porous Hollow Structures

L. Z. Wang,\* F. Tang, K. Ozawa,  
 Z.-G. Chen, A. Mukherj, Y. C. Zhu, J. Zou,  
 H.-M. Cheng, G. Q. Lu\* \_\_\_\_\_ 7048–7051

A General Single-Source Route for the Preparation of Hollow Nanoporous Metal Oxide Structures

**Not Si–Si, rather Si–O–Si:** Dimethylformamide (DMF) acts as an oxygen source in the efficient transformation of tertiary silanes ( $R_3SiH$ ;  $R_3 = Ph_2Me, PhMe_2, Et_3$ ) into disiloxanes  $R_3Si-O-SiR_3$  in the presence of the catalyst  $[(\eta^5-C_5H_5)Fe(CO)_2CH_3]$  (**1**; see scheme). This result contradicts a recently published related study, in which the formation of disilanes is reported.

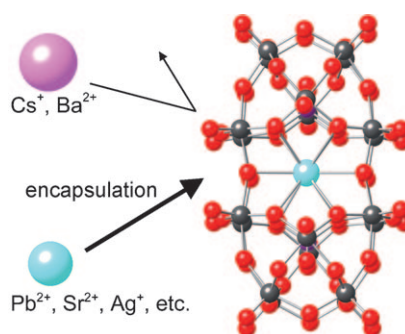


### Disiloxanes

H. K. Sharma,  
 K. H. Pannell\* \_\_\_\_\_ 7052–7054

The Photochemical Irradiation of  $R_3SiH$  in the Presence of  $[(\eta^5-C_5H_5)Fe(CO)_2CH_3]$  in DMF Leads to Disiloxanes not Disilanes

**A select club:** The polyoxometalate  $[(\gamma-SiW_{10}O_{32})_2(\mu-O)_4]^{8-}$  (**1**<sup>8-</sup>) has a cavity that can size-selectively encapsulate the ions  $Pb^{2+}$ ,  $Sr^{2+}$ ,  $Na^+$ ,  $Ag^+$ ,  $K^+$ , and  $Rb^+$  (see picture, light blue; Si hidden, W gray, O red). Larger  $Ba^{2+}$  and  $Cs^+$  ions (pink) are not encapsulated by **1**. The molecular structures of  $[M^{n+}C\mathbf{1}]^{(8-n)-}$  ( $M^{n+} = Pb^{2+}, Sr^{2+}, Ag^+, Ba^{2+}$ ) were characterized by X-ray crystallography.



### Polyoxometalates

A. Yoshida, Y. Nakagawa, K. Uehara,  
 S. Hikichi, N. Mizuno\* \_\_\_\_\_ 7055–7058

Inorganic Cryptand: Size-Selective Strong Metallic Cation Encapsulation by a Disilicoicosatungstate ( $Si_2W_{20}$ ) Polyoxometalate

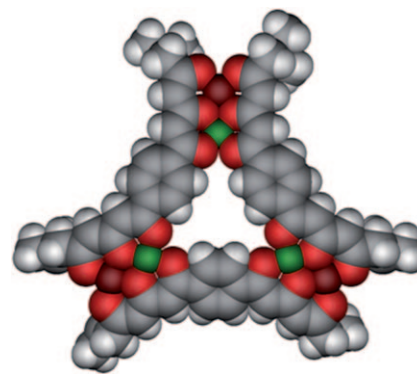
## Metallostructures

F. Li, J. K. Clegg, P. Jensen, K. Fisher,  
L. F. Lindoy,\* G. V. Meehan, B. Moubaraki,  
K. S. Murray \_\_\_\_\_ **7059–7063**



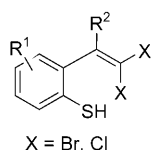
Predesigned Hexanuclear Cu<sup>II</sup> and Cu<sup>II</sup>/  
Ni<sup>II</sup> Metallacycles Featuring Six-Node  
Metallacoronand Structural Motifs

**Crowning glory:** The assembly of Cu<sup>II</sup> or Cu<sup>II</sup> and Ni<sup>II</sup> and a new 1,4-aryl-linked bis(triketonato) ligand designed to adopt a ‘bent’ configuration leads to unusual Cu<sub>6–n</sub>Ni<sub>n</sub>L<sub>3</sub> (*n* = 0, 3) metallacycles that feature unique hexanuclear metallacoronand structural motifs. In the case of the hexanuclear Cu<sup>II</sup> species, strong antiferromagnetic interactions exist between proximate pairs of metal ions in each structure.



## Tandem Catalysis

C. S. Bryan, J. A. Braunger,  
M. Lautens\* \_\_\_\_\_ **7064–7068**



24 examples  
up to 99 % yield



Efficient Synthesis of Benzothiophenes by  
an Unusual Palladium-Catalyzed Vinylic  
C–S Coupling

**The simultaneous construction** of a C–S and a C–C bond under catalytic conditions forms the basis of an efficient route to diversely functionalized benzothiophenes from *gem*-dihalovinyl thiophenols. The C–C bond can be formed in this

tandem catalytic process with an organo-boron reagent as shown in the scheme (*R*<sup>1</sup> = H, Me, F, Cl, Br, –OCH<sub>2</sub>O–; *R*<sup>2</sup> = H, Me; *R*<sup>3</sup> = aryl, heteroaryl, alkenyl, alkyl), or by Heck or Sonogashira coupling with an alkene or alkyne.

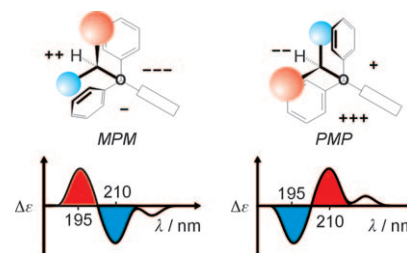
## Chirality

J. Ściebura, P. Skowronek,  
J. Gawronski\* \_\_\_\_\_ **7069–7072**



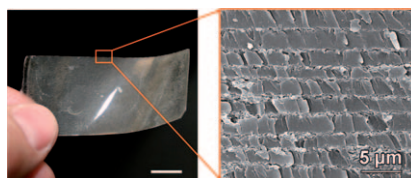
Trityl Ethers: Molecular Bevel Gears  
Reporting Chirality through Circular  
Dichroism Spectra

**More than a protecting group:** The trityl group senses the chirality of an alkyl substituent in chiral trityl ethers. The CD spectra of trityl-protected alcohols are highly sensitive to the chirality of the alcohol. The use of a trityl CD sensor provides new insight into the structure and mode of action of chiral molecular bevel gears and shows the relation between the absolute configurations of molecules and their Cotton effect patterns.



## Layer-By-Layer Films

P. Podsiadlo, M. Michel, K. Critchley,  
S. Srivastava, M. Qin, J. W. Lee,  
E. Verploegen, A. J. Hart, Y. Qi,  
N. A. Kotov\* \_\_\_\_\_ **7073–7077**



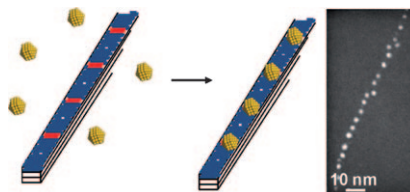
**The layer-by-layer deposition** of poly-(diallyldimethylammonium chloride) and poly(acrylic acid) incorporating inorganic sheets of sodium montmorillonite clay leads to a stratified structure throughout the film interior, with micrometer-thick polymer complex layers and thin clay strata (see picture; right: cross-section).



Diffusional Self-Organization in  
Exponential Layer-By-Layer Films with  
Micro- and Nanoscale Periodicity



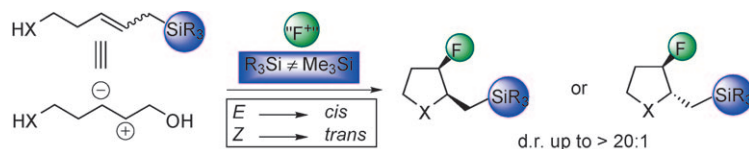
**Evenly spaced arrays:** The unique molecular architecture of a self-assembled polypeptide template allows the electrostatic deposition of nanoparticles with uniform interparticle spacing. The hierarchical self-assembly mode of the polypeptide results in the display of charged patches at periodic distances along the length of the fibril architecture (see picture).



### Nanoparticle Assembly

N. Sharma, A. Top, K. L. Kiick,\*  
 D. J. Pochan\* \_\_\_\_\_ 7078–7082

One-Dimensional Gold Nanoparticle Arrays by Electrostatically Directed Organization Using Polypeptide Self-Assembly



**A refreshing cascade:** General fluorocyclization reactions will breathe new life into the use of fluorinated hetero- and carbocycles as pharmaceuticals and agrochemicals. Allyl silanes have now been shown to undergo fluorination–cyclization

with N–F reagents to give *cis*- and *trans*-substituted fluorinated heterocycles selectively (see scheme). The correct choice of silyl group was critical to prevent competitive fluorodesilylation.

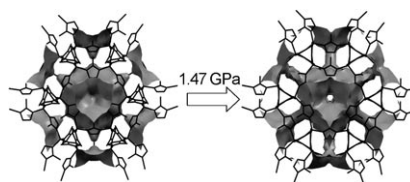
### Fluorination

S. C. Wilkinson, O. Lozano, M. Schuler,  
 M. C. Pacheco, R. Salmon,  
 V. Gouverneur\* \_\_\_\_\_ 7083–7086

Electrophilic Fluorocyclization of Allyl Silanes



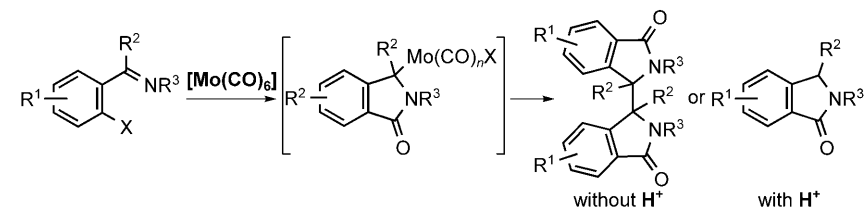
**The big squeeze:** On applying pressure to ZIF-8 (0.18 GPa), solvent can be squeezed into the porous cavities, initially increasing the pore size and unit-cell volume. On increasing pressure further to 1.47 GPa, a phase transition takes place (see picture). This transition allows more solvent to enter the original nanopores and enlarges the narrow channels connecting these pores, resulting in higher porous volume and solvent content.



### Metal–Organic Frameworks

S. A. Moggach,\* T. D. Bennett,  
 A. K. Cheetham \_\_\_\_\_ 7087–7089

The Effect of Pressure on ZIF-8: Increasing Pore Size with Pressure and the Formation of a High-Pressure Phase at 1.47 GPa



**Lovely lactams:** Synthetically useful  $\gamma$ -lactam derivatives have been prepared through the unique title transformation. By utilizing the characteristic property of the molybdenum complex, two kinds of

products (both of which have rarely been obtained by reactions catalyzed by late transition metals) were obtained selectively by adjusting the reaction conditions (see scheme).

### Synthetic Methods

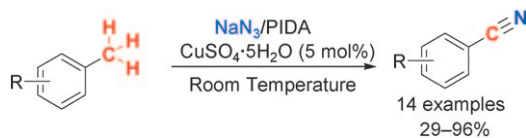
J. Takaya, K. Sangu,  
 N. Iwasawa\* \_\_\_\_\_ 7090–7093

Molybdenum(0)-Promoted Carbonylative Cyclization of *o*-Haloaryl- and  $\beta$ -Haloalkenylimine Derivatives by Oxidative Addition of a Carbon(sp<sup>2</sup>)–Halogen Bond: Preparation of Two Types of  $\gamma$ -Lactams



## Aryl Nitriles

W. Zhou, L. Zhang, N. Jiao\* **7094–7097**



Direct Transformation of Methyl Arenes to Aryl Nitriles at Room Temperature

**Three C–H bonds** are cleaved in the direct transformation of methyl arenes to aryl nitriles under mild and neutral conditions (see scheme). This new synthetic tool may not only be used to construct synthetically

and medicinally important aryl nitriles, it also achieves C–H functionalization under mild conditions. PIDA = phenyliodonium diacetate.

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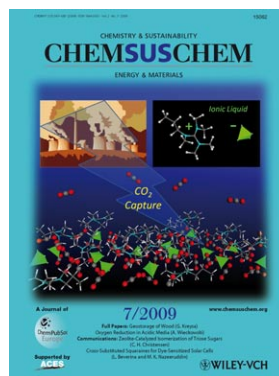
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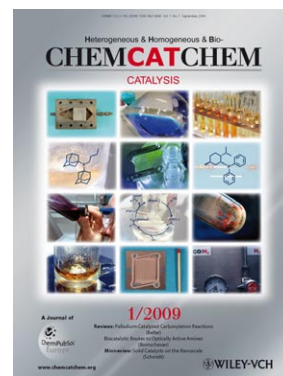
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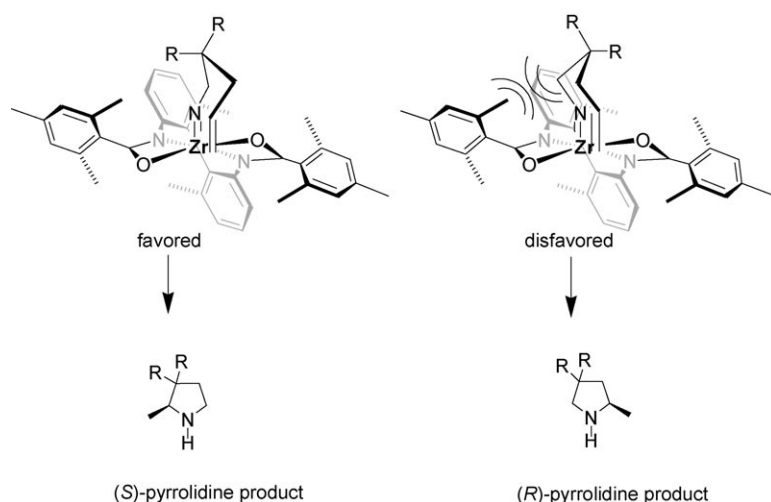
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## Corrigenda

The authors would like to thank Prof. Guofu Zi and Li Xiang of Beijing Normal University for alerting us to our erroneous assignment of 2,2'-diamino-6,6'-dimethylbiphenyl ( $[\alpha]_D = -35^\circ$  in 10% HCl) as the *S*-Absolute configuration in our communication. In fact, (*S*)-(-)-2,2'-diamino-6,6'-dimethylbiphenyl has negative specific rotation in non-acidic solvents ( $[\alpha]_D = -51.7^\circ \pm 2.4$  in EtOH,<sup>[1]</sup>  $[\alpha]_D = +34^\circ$  in 10% HCl<sup>[2]</sup>).<sup>[3]</sup> Thus, the resolution of racemic 2,2'-diamino-6,6'-dimethylbiphenyl in the Supporting Information should be corrected to read L-(+)-tartaric acid (sometimes given as *d*-tartaric acid in the literature<sup>[3]</sup>) gives (*R*)-(+)-2,2'-diamino-6,6'-dimethylbiphenyl. Then (*S*)-(-)-2,2'-diamino-6,6'-dimethylbiphenyl enriched materials can be resolved with *D*-(-)-tartaric acid. These resolved axially chiral diamines can then be used to make all the proligands, precatalysts, and pyrrolidine products as described in the communication. Notably, owing to the fact that proligands and precatalysts are reported using specific rotation (not absolute configuration) the misassignment of the naming of the ligand does not change any of the data presented regarding the absolute configurations of the products (i.e. in Table 2, entry 2 precatalyst (-)-**4a** does give the (*S*)-pyrrolidine product). Figure 1, which shows the solution of a racemic crystal, is corrected to read "Two views of an ORTEP diagram (ellipsoids shown at the 50% probably level) of the dimethylamine adduct of ( $\pm$ )-**4a** ...". The initial erroneous absolute configuration assignment of the diamine means that in Figure 2 we in fact illustrated (-)-**4a**. Thus, based upon the suggestion of Prof. Zi, we modify our working hypothesis for selectivity in setting the stereocenter as presented in the corrected Figure 2.



**Figure 2.** Suggested intermediates in the enantioselective aminoalkene hydroamination using precatalyst (+)-**4a** in which the alkene can approach from the *Re* face or the *Si* face.

While the misassignment of the absolute configuration of the chiral diamine ligand backbone was erroneous and unfortunate, the stereochemistry of the products, and the enantiomeric excesses reported remain unchanged.

[1] K. Seno, S. Hagishita, T. Sato, K. Kuriyama, *J. Chem. Soc. Perkin Trans. 1* **1984**, 2013–2022.

[2] F. A. McGinn, A. K. Lazarus, M. Siegel, J. E. Ricci, K. Mislow, *J. Am. Chem. Soc.* **1958**, *80*, 476–480.

[3] T. L. Marxen, B. J. Johnson, P. V. Nilsson, L. H. Pignolet, *Inorg. Chem.* **1984**, *23*, 4663–4670.

Chiral Neutral Zirconium Amidate Complexes for the Asymmetric Hydroamination of Alkenes

M. C. Wood, D. C. Leitch, C. S. Yeung, J. A. Kozak, L. L. Schafer\* — 354–358

*Angew. Chem. Int. Ed.* **2007**, *46*

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Highly Regio- and Enantioselective  
Copper-Catalyzed Hydroboration of  
Styrenes

D. Noh, H. Chea, J. Ju,  
J. Yun\* \_\_\_\_\_ **6062–6064**

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

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In the introduction to this Communication, the third sentence in the first paragraph on p. 6178 should read as follows: “so far, only combinations of rhodium complexes and catecholborane (CatBH) have shown the desirable high regioselectivity and enantioselectivity.<sup>[4,5]”</sup>.

The authors wish to add references [4 c] and [14 b]. The full references appear below.

- 
- [4] For a review of rhodium-catalyzed enantioselective hydroboration, see: a) A.-M. Carroll, T. P. O’Sullivan, P. J. Guiry, *Adv. Synth. Catal.* **2005**, *347*, 609–631; b) T. Hayashi, Y. Matsumoto, Y. Ito, *Tetrahedron: Asymmetry* **1991**, *2*, 601–612; for a regio- and enantioselective hydroboration with CatBH at ambient temperature, see: c) H. Doucet, E. Fernandez, T. P. Layzell, J. M. Brown, *Chem. Eur. J.* **1999**, *5*, 1320–1330.
- [14] An NHC–copper-catalyzed hydroboration of styrene with catecholborane has been reported. Incomplete conversion (73–95 %) and low regioselectivity ( $\alpha/\beta$  1:2.3–7.3) in favor of the linear isomer were observed: a) V. Lillo, M. R. Fructos, J. Ramírez, A. A. C. Braga, F. Maseras, M. M. Díaz-Requejo, P. J. Pérez, E. Fernández, *Chem. Eur. J.* **2007**, *13*, 2614–2621. A copper-catalyzed regio- and enantioselective synthesis of  $\beta$ -borylated product from vinyl arenes with bis(pinacolato)diboron and methanol has recently been reported: b) Y. Lee, A. H. Hoveyda, *J. Am. Chem. Soc.* **2009**, *131*, 3160–3161.

Iron-Catalyzed Dehydrogenative  
Coupling of Tertiary Silanes

M. Itazaki, K. Ueda,  
H. Nakazawa\* \_\_\_\_\_ **3313–3316**

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In this Communication, the products in Tables 1 and 2 and the final products in Scheme 2 were incorrectly given. Reinvestigation of these reactions under several reaction conditions and careful analyses of the spectroscopic data of the products revealed that the products do not have Si–Si bonds, but have Si–O–Si bonds. The authors apologize for the error, and are grateful to Professor Pannell<sup>[1]</sup> and others for pointing this out.

- 
- [1] H. K. Sharma, K. H. Pannell, *Angew. Chem.* **2009**, *121*, 7186–7188; *Angew. Chem. Int. Ed.* **2009**, *48*, 7052–7054