



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 soon:

Y. H. Sehlleier, A. Verhoeven, M. Jansen*

Observation of Direct Bonds Between Carbon and Nitrogen in Si-B-N-C Ceramic After Pyrolysis at 1400 °C

H. Braunschweig*, C. J. Adams, T. Kupfer, I. Manners, R. Richardson, G. R. Whittell

A Paramagnetic Polymer by Ring-Opening Polymerization of a Strained [1]Vanadoareneophane

W. D. Pyrz, D. A. Blom, T. Vogt, D. J. Buttrey*

Direct Imaging of the MoVTenBO M1 Phase Using an Aberration-Corrected High-Resolution Scanning Transmission Electron Microscope

Q. Zhang, T. P. Chou, B. Russo, S. A. Jenekhe, G. Cao*

Aggregation of ZnO Nanocrystallites for High Conversion Efficiency in Dye-Sensitized Solar Cells

S. Arita, T. Koike, Y. Kayaki, T. Ikariya*

Aerobic Oxidative Kinetic Resolution of Racemic Secondary Alcohols with Chiral Bifunctional Amido Complexes

T. Z. Forbes, J. G. McAlpin, R. Murphy, P. C. Burns*

Metal-Oxygen Isopolyhedra Assembled into Fullerene Topologies

Albert I. Meyers (1933–2007)

Comprehensive Organic Reactions in Aqueous Media

Physics and Chemistry of Ice

Chao-Jun Li, Tak-Hang Chan

Werner F. Kuhs

Obituary

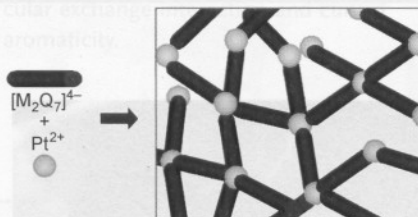
V. Snieckus — 1986

Books

reviewed by K. H. Shaughnessy — 1988

reviewed by B. Geil — 1989

Picking holes: Self-assembly of germanium chalcogenide clusters in the presence of metal ions is a new and promising approach to the synthesis of porous semiconducting networks. Even monolithic highly porous aerogels with high internal surface areas can be prepared by sol-gel processing of anionic $[\text{GeQ}_4]^{4-}$, $[\text{Sn}_2\text{Q}_6]^{4-}$, or $[\text{Ge}_4\text{Q}_{10}]^{4-}$ clusters (Q = Se, S) in the presence of Pt^{2+} (see scheme).



Highlights

Porous Materials

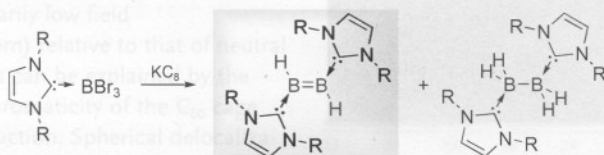
N. Hüsing* — 1992–1994

Cluster-Based Holey Semiconductors

Boron-Boron Double Bonds

D. Scheschkewitz* — 1995–1997

A Base-Stabilized Neutral B=B Bond: Closing a Gap by Filling the Void



The lightest double bond, that is, the one between two atoms of boron, was finally realized in an electroneutral compound. Robinson et al. satisfied the electron demand of $\text{HB}=\text{BH}$ through coordination

of two molecules of an N-heterocyclic carbene (see scheme). As by-product, the base-stabilized parent diborane(4), the formal hydrogenation product of the title compound, was isolated.

Minireviews

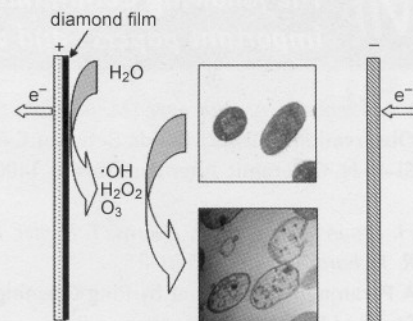
Electrochemical Water Purification

C. A. Martínez-Huitle,*

E. Brillas — 1998–2005

Electrochemical Alternatives for Drinking Water Disinfection

"Water, water, everywhere, but not a drop to drink." The most important step in the production of safe drinking water is the elimination of pathogenic microorganisms. Electrochemical systems with diamond films are promising alternatives to chlorination for disinfection of drinking water. As reactive oxygen species are generated in these systems (see picture), the formation of potentially toxic products such as chloroform from chlorine can be avoided.

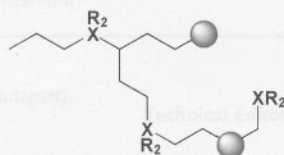


Reviews

Catalytic Chain Transfer

S. B. Amin, T. J. Marks* — 2006–2025

Versatile Pathways for In Situ Polyolefin Functionalization with Heteroatoms: Catalytic Chain Transfer



Agents of change: Chain-transfer processes are efficient and selective chemical means to achieve in situ functionalization of polyolefins in polymerization reactions catalyzed by d- and f-block metals (see picture, X = heteroatom). A variety of electron-poor and electron-rich chain-transfer agents, including silanes, boranes, alanes, phosphines, and amines, effect selective chain termination with concomitant carbon–heteroelement bond formation during single-site olefin-polymerization processes.

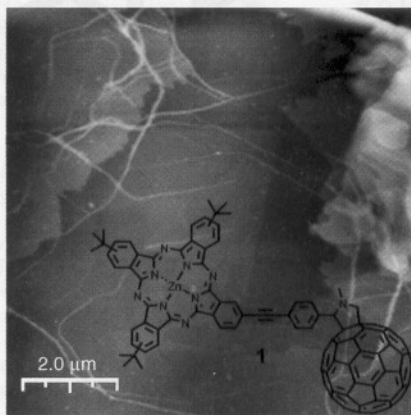
Communications

Conducting Nanomaterials

G. Bottari, D. Olea, C. Gómez-Navarro, F. Zamora,* J. Gómez-Herrero,*
T. Torres* — 2026–2031



Highly Conductive Supramolecular Nanostructures of a Covalently Linked Phthalocyanine–C₆₀ Fullerene Conjugate



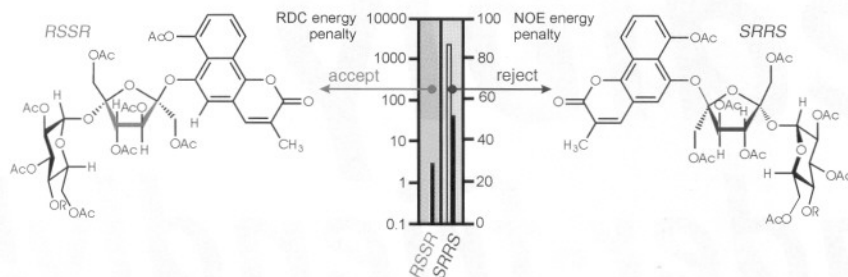
Conducting surfaces: A covalently linked phthalocyanine–C₆₀ fullerene conjugate **1** (see picture) is able to self-organize on graphite and graphite-like surfaces, thus giving rise to supramolecular fibers and films. These nanostructures are electrically characterized by conductive atomic force microscopy and show outstanding nanoscale electrical conductivity.

For the USA and Canada:

ANGEWANDTE CHEMIE International Edition (ISSN 1433-7851) is published weekly by Wiley-VCH, PO Box 191161, 69451 Weinheim, Germany. Air freight and mailing in the USA by Publications Expediting Inc., 200

Meacham Ave., Elmont, NY 11003. Periodicals postage paid at Jamaica, NY 11431. US POSTMASTER: send address changes to *Angewandte Chemie*, Wiley-VCH, 111 River Street, Hoboken, NJ 07030. Annual subscription price for institutions: US\$ 7225/6568 (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.



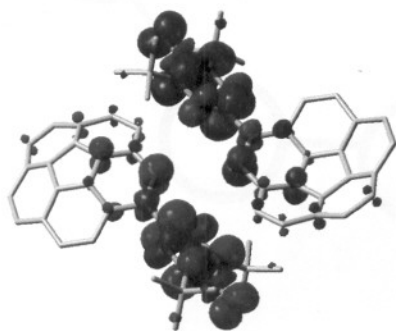
A new method based on NMR spectroscopy is introduced to determine the absolute configuration of natural compounds and has been successfully applied to sucro-neolambertellin. The method relies on the measurement of residual dipolar couplings (RDCs), which allow the

absolute configuration of unknown stereocenters to be related with known stereocenters (see picture). The approach is used to determine the configuration of the *D-threo*-2,5-hexodiulofuranose moiety by relating it to α -D-glucose.

Glycoconjugates

A. Schuetz, T. Murakami, N. Takada,
J. Junker, M. Hashimoto,*
C. Griesinger* — 2032–2034

RDC-Enhanced NMR Spectroscopy in
Structure Elucidation of Sucro-
Neolambertellin



A well-rounded radical: A stable corannulene-based neutral radical with curved π conjugation was synthesized, and the crystal structure was determined. Unbalanced delocalized electronic spin on the three-dimensional π surface of the corannulene moiety (see spin-density distribution) demonstrates a sizable intermolecular exchange interaction and curved aromaticity.

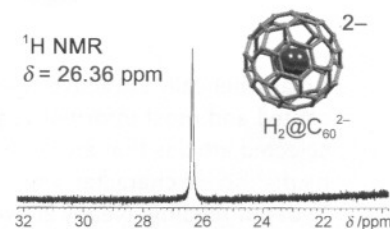
Corannulene-Based Radicals

Y. Morita,* A. Ueda, S. Nishida, K. Fukui,
T. Ise, D. Shiomi, K. Sato, T. Takui,*
K. Nakasuji* — 2035–2038

Curved Aromaticity of a Corannulene-
Based Neutral Radical: Crystal Structure
and 3D Unbalanced Delocalization of
Spin



Inside information: The NMR signal of the molecular hydrogen in $\text{H}_2@C_{60}^{2-}$ appears at extraordinarily low field ($\delta = 26.36$ ppm) relative to that of neutral $\text{H}_2@C_{60}$. This can be explained by the decrease in aromaticity of the C_{60} cage upon 2e reduction. Spherical delocalization of the added two electrons over the π system of the fullerene cage is thought to be responsible for the drastic change in fullerene aromaticity.



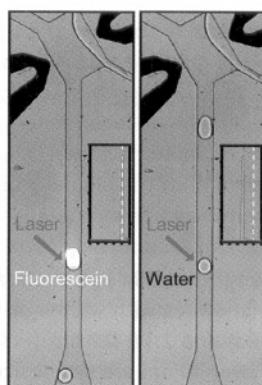
Aromaticity

M. Murata, Y. Ochi, F. Tanabe,
K. Komatsu,* Y. Murata* — 2039–2041

Internal Magnetic Fields of Dianions of
Fullerene C_{60} and Its Cage-Opened
Derivatives Studied with Encapsulated H_2
as an NMR Probe



The contents of microdroplets can be extracted on-chip and incorporated by electrocoalescence into a continuous microfluidic stream. Individual droplets can be selected based on their contents. As a proof of principle, a fluorescence detection system was used to collect droplets containing low levels of a fluorescent dye (see picture of droplets passing through the device) as well as single fluorescent beads.

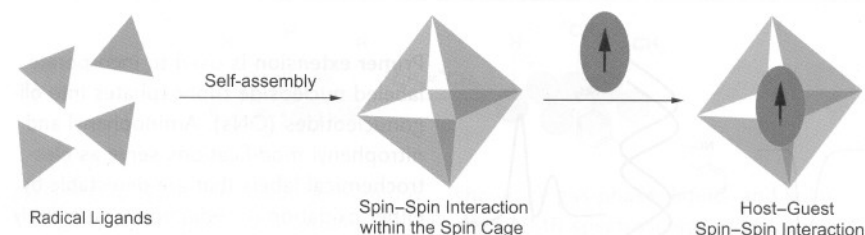


Microfluidics



L. M. Fidalgo, G. Whyte, D. Bratton,
C. F. Kaminski, C. Abell,
W. T. S. Huck* — 2042–2045

From Microdroplets to Microfluidics:
Selective Emulsion Separation in
Microfluidic Devices



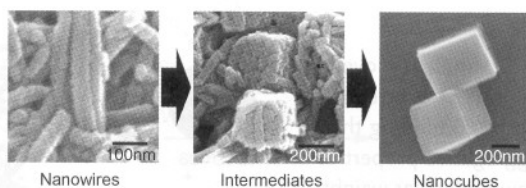
Going for a spin: The quantitative self-assembly of a verdazyl radical-cored ligand with $[\text{Pd}(\text{bpy})(\text{NO}_3)_2]$ (bpy = 2,2'-bipyridyl) generates a large M_6L_4 spin cage in which multiple spin centers effectively

surround the cavity. The inclusion of a radical guest within the cavity induces spin-spin interactions between the host and the guest.

Molecular Recognition

K. Nakabayashi, Y. Ozaki, M. Kawano,
M. Fujita* — 2046–2048

A Self-Assembled Spin Cage



Fluorescent CPPs (coordination polymer particles) with controllable sizes ranging from the nano- to the microscale were synthesized in high yield by a solvothermal approach involving zinc ions and a carboxy-functionalized salen ligand. The

initially formed nanowires aggregate to form cube-like clusters which undergo intrastructural fusion to produce uniform cubic particles, as shown by the depicted sequence of SEM images.

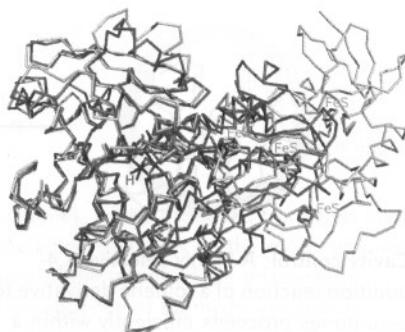
Coordination Polymer Nanoparticles

S. Jung, M. Oh* — 2049–2051

Monitoring Shape Transformation from
Nanowires to Nanocubes and Size-
Controlled Formation of Coordination
Polymer Particles



Surprisingly uninhibited: The inhibition of hydrogenases by oxygen is intensely studied because this is the main obstacle to using these enzymes in biofuel cells. The hydrogenase from *Clostridium acetobutylicum* (see structure) was found to react surprisingly slowly with O_2 . The inhibition mechanism was elucidated and the kinetics were quantitatively defined. This is a prerequisite for improving the enzyme further by genetic engineering and for assessing its potential in technological devices.



Clostridium acetobutylicum FeFe hydrogenase
Desulfovibrio desulfuricans FeFe hydrogenase

Hydrogenases

C. Baffert, M. Demuez, L. Cournac,
B. Burlat, B. Guigliarelli, P. Bertrand,
L. Girbal, C. Léger* — 2052–2054

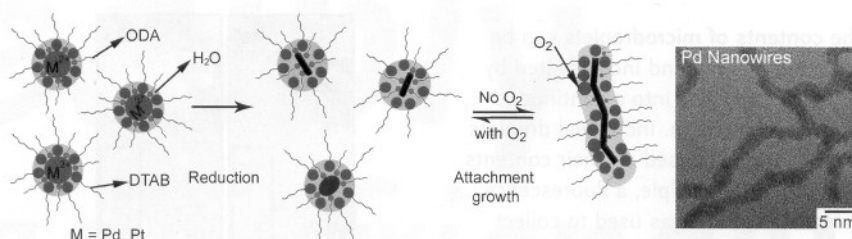
Hydrogen-Activating Enzymes: Activity
Does Not Correlate with Oxygen
Sensitivity



Metallic Nanowires

X. Teng, W.-Q. Han,* W. Ku,
M. Hucker ————— 2055 – 2058

Synthesis of Ultrathin Palladium and
Platinum Nanowires and a Study of Their
Magnetic Properties



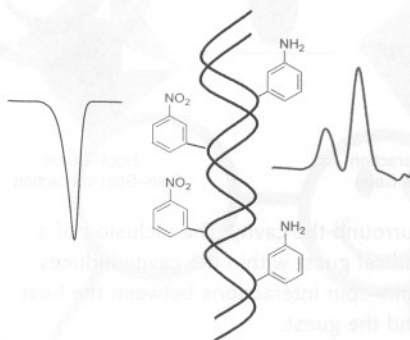
Thin and wiry: Ultrathin palladium and platinum nanowires with widths of 2.4 ± 0.2 (Pd) and 2.3 ± 0.2 nm (Pt) and lengths of over 30 nm are synthesized by a modified phase-transfer method (see

picture). Both nanowires show ferromagnetic properties and unusual shifts in their hysteresis loops at low temperature. ODA = octadecylamine, DTAB = *n*-dodecyltrimethylammonium bromide.

DNA Labeling

H. Cahová, L. Havran, P. Brázdilová,
H. Pivoňková, R. Pohl, M. Fojta,*
M. Hocek* ————— 2059 – 2062

Aminophenyl- and Nitrophenyl-Labeled
Nucleoside Triphosphates: Synthesis,
Enzymatic Incorporation, and
Electrochemical Detection



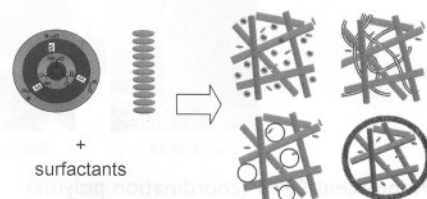
Primer extension is used to incorporate labeled nucleoside triphosphates into oligonucleotides (ONs). Aminophenyl and nitrophenyl modifications serve as electrochemical labels that are detectable by either oxidation or reduction, respectively (see representation of the ON double strand and redox curves). The redox potentials of the labels differ depending on the nucleobase and respond to incorporation into ONs.

VIP Self-Assembly

A. Brizard, M. Stuart, K. van Bommel,
A. Friggeri, M. de Jong,
J. van Esch* ————— 2063 – 2066

Preparation of Nanostructures by
Orthogonal Self-Assembly of
Hydrogelators and Surfactants

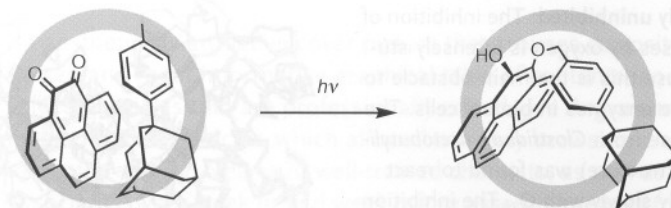
Social networking: A variety of novel multicompartament nanostructures has been easily formed by combining the supramolecular aggregative properties of surfactants with low-molecular-weight hydrogelators that are based on 1,3,5-cyclohexyltricarboxamide (see picture, AA = amino acid). The resulting structures include self-assembled interpenetrating networks.



Host–Guest Systems

T. Yamaguchi, M. Fujita* — 2067 – 2069

Highly Selective Photomediated
1,4-Radical Addition to *o*-Quinones
Controlled by a Self-Assembled Cage



Cavity control: A highly selective 1,4-addition reaction of a toluene derivative to *o*-quinones proceeds efficiently within a self-assembled coordination cage (see

scheme). The cage accelerates the formation of the 1,4-adduct but suppresses all other reaction pathways that are normally favorable in the absence of the cage.

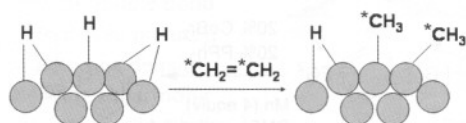


Facing up to matters: Template-assisted cofacial assembly of a ring-shaped polyoxomolybdate cluster (MC) by an oligomeric *p*-phenylenebutadiynylene rigid rod molecule bearing ammonium ion pendant groups (PB_n) allowed for the formation of an inorganic/organic one-dimensional (1D) nanoobject. Studies indicate that the 1D object most likely has a polypseudorotaxane structure (see picture), in which multiple MC rings are threaded by the PB_n rod.

Supramolecular Chemistry

M. A. Alam, Y.-S. Kim, S. Ogawa, A. Tsuda,* N. Ishii, T. Aida* 2070–2073

Directed 1D Assembly of a Ring-Shaped Inorganic Nanocluster Templated by an Organic Rigid-Rod Molecule: An Inorganic/Organic Polypseudorotaxane



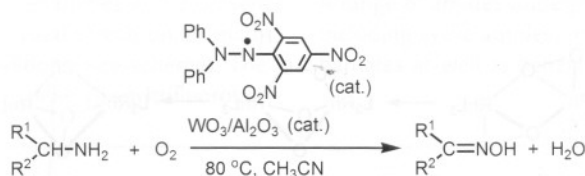
Surface C–C bond activation: Ruthenium nanoparticles prepared by hydrogenation of an organometallic precursor accommodate more than one hydride per surface ruthenium atom as well as various ligands, such as amines or phosphines, as

shown by gas-phase, liquid, and solid-state NMR spectroscopy and titration with olefins. These nanoparticles react with ethylene at room temperature to give ethane and surface-bound methyl species (see scheme).

Surface Chemistry

J. García-Antón, M. R. Axet, S. Jansat, K. Philippot, B. Chaudret,* T. Pery, G. Buntkowsky, H.-H. Limbach 2074–2078

Reactions of Olefins with Ruthenium Hydride Nanoparticles: NMR Characterization, Hydride Titration, and Room-Temperature C–C Bond Activation



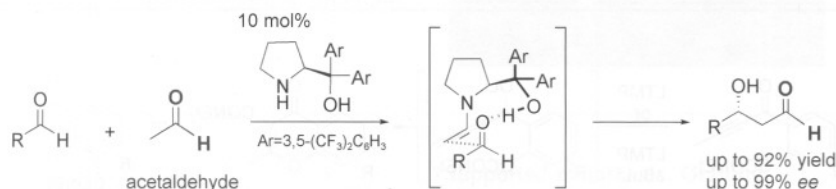
Catalytic teamwork: Aerobic oxidation of primary amines to the corresponding oximes proceeds highly efficiently in the presence of the catalysts 1,1-diphenyl-2-

picrylhydrazyl (DPPH) and WO₃/Al₂O₃ under mild conditions (see scheme). This new method is both selective and environmentally benign.

Aerobic Catalytic Oxidation

K. Suzuki,* T. Watanabe, S.-I. Murahashi* 2079–2081

Aerobic Oxidation of Primary Amines to Oximes Catalyzed by DPPH and WO₃/Al₂O₃



No over-reacting: A diarylprolinol was found to be an effective organocatalyst of the direct, enantioselective aldol reaction of acetaldehyde, affording β-hydroxy α-unsubstituted aldehydes in good yield with excellent enantioselectivity (see

scheme). In the proposed transition state the aldehyde reacts on the more hindered face of the intermediate enamine as a consequence of the hydrogen bond between the aldehyde and the OH group of the organocatalyst.

Organocatalysis

Y. Hayashi,* T. Itoh, S. Aratake, H. Ishikawa 2082–2084

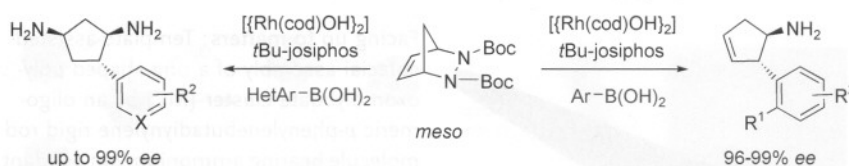
A Diarylprolinol in an Asymmetric, Catalytic, and Direct Crossed-Aldol Reaction of Acetaldehyde

Asymmetric Catalysis

F. Menard, M. Lautens* — 2085–2088



Chemodivergence in Enantioselective Desymmetrization of Diazabicycles: Ring-Opening versus Reductive Arylation



Divergent bicycle paths: A chemodivergent desymmetrization occurs after an initial enantioselective carbometalation step. The reaction brings a solution to the challenging problem of the enantioselective ring-opening of diazabicyclo-

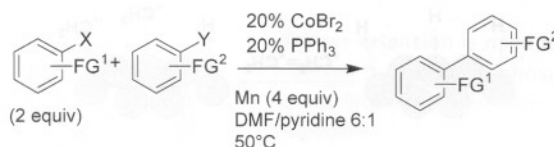
[2.2.1]heptanes to obtain arylated cyclopentenamines (see scheme, right). An alternative reaction pathway was discovered in which C–H insertion/1,4-metal migration occurs to give reductive arylation products (left).

C–C Coupling

M. Amatore, C. Gosmini* — 2089–2092



Efficient Cobalt-Catalyzed Formation of Unsymmetrical Biaryl Compounds and Its Application in the Synthesis of a Sartan Intermediate



No prior preparation of the organometallic reagent is required in a cobalt-catalyzed coupling of two different aryl halides under mild conditions (see scheme). A broad spectrum of valuable biaryl compounds can be prepared in this way. Not

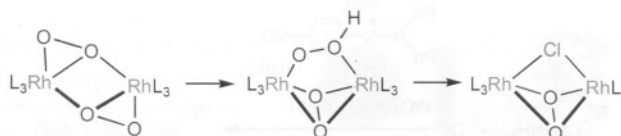
only may a variety of reactive substituents be present, but heteroaryl halides and aryl triflates are also suitable substrates. DMF = *N,N*-dimethylformamide, FG = functional group.

Stable Hydroperoxido Complex

C. Tejel,* M. A. Ciriano, S. Jiménez, V. Passarelli, J. A. López — 2093–2096



Stabilization of the Hydroperoxido Ligand: A $1\kappa O, 2\kappa O'$ Dimetallic Coordination Mode



A novel coordination mode of the hydroperoxido ligand in which each oxygen atom is bonded to a distinct metal center is present in a rare thermally stable example of this otherwise elusive family of complexes, which was obtained by proto-

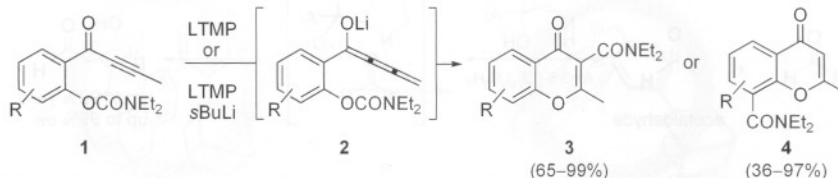
nating a bis-peroxido-bridged Rh_2 complex. The OOH ligand is displaced by a chloride ion to give the corresponding chlorido-bridged complex (see scheme, L_3 = tris(methylenediphenylphosphane)-phenylborate).

Synthetic Methods

T. K. Macklin,* J. Pantelev, V. Snieckus* — 2097–2101

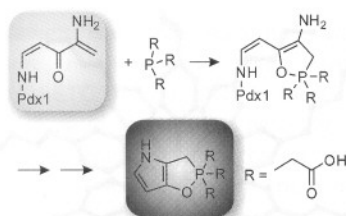


Carbamoyl Translocations by an Anionic *ortho*-Fries and Cumulenolate α -Acylation Pathway: Regioselective Synthesis of Polysubstituted Chromone 3- and 8-Carboxamides



Completing the circle: A synthesis of chromone 3- and 8-carboxamides (**3** and **4**) from 2-but-2-ynoyl aryl *O*-carbamates **1** has been achieved via common intermediate **2** in a regioselective manner.

Repetitive metalation reactions and an iridium-catalyzed B_2pin_2 borylation lead to the construction of polysubstituted chromones, which are key components of many bioactive compounds.



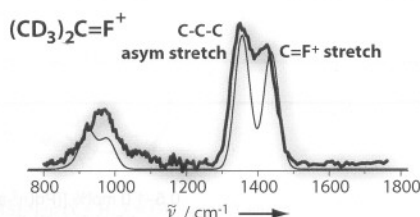
I₃₂₀ has it: The serendipitous trapping, by aromatization, of an enzyme-bound chromophoric intermediate (I₃₂₀; see picture, blue box) involved in vitamin B₆ formation using a common biological reducing agent provides new information regarding the structure of the chromophoric species.

Trapping Reactions

J. W. Hanes, I. Keresztes,
T. P. Begley* — 2102–2105

Trapping of a Chromophoric Intermediate in the Pdx1-Catalyzed Biosynthesis of Pyridoxal 5'-Phosphate

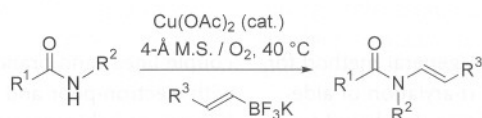
The gaseous ion (CD₃)₂CF⁺, which is isoelectronic with acetone, has a stretching vibration in the resonant IR multi-photon dissociation (IRMPD) spectrum, indicating a high degree of double-bond character in the C–F bond (see picture). Absorption bands predicted by density functional calculations with anharmonic corrections (black line) agree well with the experimental spectrum.



C=F⁺ Stretching

J. Oomens, T. H. Morton* — 2106–2108

The Cationic C=F⁺ Stretching Vibration in the Gas Phase



A new partner: Potassium alkenyltrifluoroborate salts undergo coupling with amides to give enamides in the presence of a Cu(OAc)₂ catalyst and under mild oxidative conditions (see scheme). The air- and water-stable alkenyltrifluorobor-

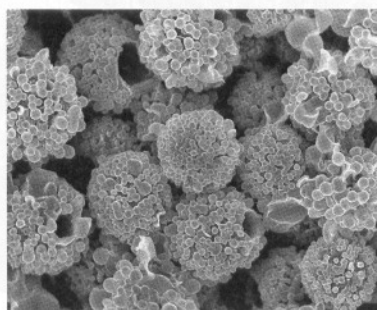
ate salts offer a convenient alternative to alkenyl halides as cross-coupling partners. A range of amides undergo coupling including cyclic amides, imides, and carbamates as well as benzamides.

Copper Catalysis

Y. Bolshan, R. A. Batey* — 2109–2112

Enamide Synthesis by Copper-Catalyzed Cross-Coupling of Amides and Potassium Alkenyltrifluoroborate Salts

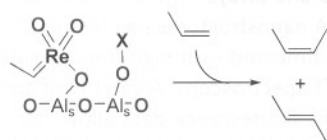
Blooming block copolymers! Uniform droplets of solvent that contain amphiphilic polystyrene–poly(ethylene oxide) diblock copolymers are prepared using a microcapillary device. Solvent removal drives interfacial instabilities, through which the polymer assembles into complex hierarchical microparticle structures (see picture).



Microparticles

J. T. Zhu, R. C. Hayward* — 2113–2116

Hierarchically Structured Microparticles Formed by Interfacial Instabilities of Emulsion Droplets Containing Amphiphilic Block Copolymers



low adsorption and fast desorption (no isomerization)
→ Z-selective (*E/Z* = 0.4)

Supported metathesis: Grafting (CH₃)ReO₃ onto alumina covered with surface trimethylsilyl groups increases the efficiency and selectivity of this catalyst in olefin metathesis (see scheme). The SiMe₃ groups (X) modify the adsorption properties of alumina by favoring desorption and thereby disfavoring secondary reactions.

Olefin Metathesis

A. Salameh, A. Baudouin, J.-M. Basset,
C. Copéret* — 2117–2120

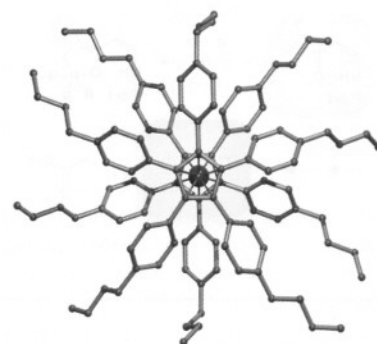
Tuning the Selectivity of Alumina-Supported (CH₃)ReO₃ by Modifying the Surface Properties of the Support

VIP Cyclopentadienyl Complexes

C. Ruspic, J. R. Moss, M. Schürmann,
S. Harder* — 2121–2126

Remarkable Stability of Metallocenes with
Superbulky Ligands: Spontaneous
Reduction of Sm^{III} to Sm^{II}

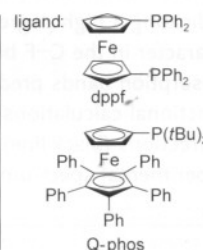
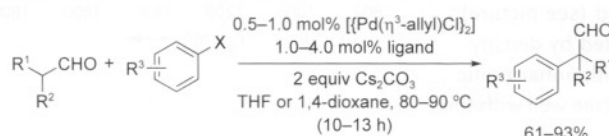
Unexpected attraction between extremely bulky cyclopentadienyl ligands of opposite chirality has been observed in perarylated metallocenes [(Ar₅C₅)₂M]. The exceptional stability of such sterically congested metallocenes (see structure) is explained by a merry-go-round C—H...C(π) hydrogen-bond network. This stabilizing force even enables spontaneous reduction of a Sm^{III} precursor to a Sm^{II} metallocene.



α-Arylation of Aldehydes

G. D. Vo, J. F. Hartwig* — 2127–2130

Palladium-Catalyzed α-Arylation of
Aldehydes with Bromo- and Chloroarenes
Catalyzed by [Pd(allyl)Cl]₂ and dppe or
Q-phos



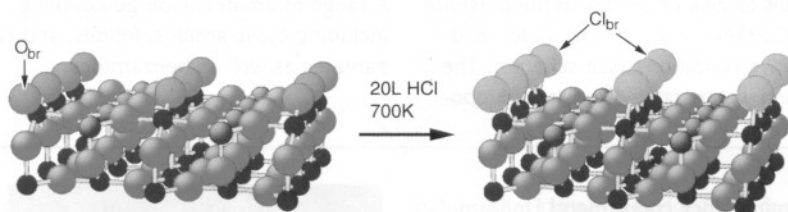
Pd source matters: A general method for palladium-catalyzed α-arylation of aldehydes (see scheme) was developed to

couple linear and branched aldehydes with electron-poor and electron-rich bromo- and chloroarenes.

Surface Chemistry

D. Crihan, M. Knapp, S. Zweidinger,
E. Lundgren, C. J. Weststrate,
J. N. Andersen, A. P. Seitsonen,
H. Over* — 2131–2134

Stable Deacon Process for HCl Oxidation
over RuO₂



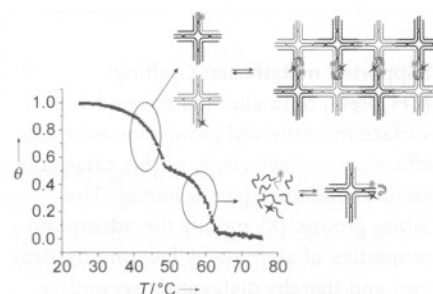
Selective substitution: In the oxidation of HCl with oxygen to give Cl₂ and water, RuO₂(110) serves as a stable, active model catalyst for the Sumitomo process (see picture; Ru in red and blue). The stability of the catalyst is related to the

selective replacement of undercoordinated bridging surface O atoms (O_{br}) by Cl atoms (Cl_{br}). The chlorination of RuO₂(110) is self-limiting, in that chlorine incorporation terminates when all bridging O atoms are replaced.

DNA Nanostructures

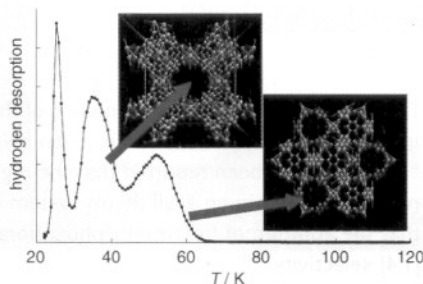
B. Saccà,* R. Meyer, U. Feldkamp,
H. Schroeder,
C. M. Niemeyer* — 2135–2137

High-Throughput, Real-Time Monitoring
of the Self-Assembly of DNA
Nanostructures by FRET Spectroscopy



Tiles and arrays: The self-assembly of DNA nanostructures can be monitored in real time and with high throughput by FRET spectroscopy. A van't Hoff analysis of the fluorescence data allows for a complete thermodynamic characterization of the tile formation as well as array formation (see picture).

The diameter is decisive: Adsorption sites for hydrogen in the metal–organic frameworks Cu-BTC, MIL-53, MOF-5, and IRMOF-8 could be identified by using thermal desorption spectroscopy at very low temperatures (see graph). The correlation between the desorption spectra and the pore structure of these MOFs shows that at high hydrogen concentrations the diameter of the cavity determines the heat of adsorption.



Hydrogen Storage

B. Panella,* K. Hönes, U. Müller,
N. Trukhan, M. Schubert, H. Pütter,
M. Hirscher ————— 2138–2142

Desorption Studies of Hydrogen in
Metal–Organic Frameworks



(4R)-Hyp (Y = OH; X = H): *trans*, C¹-*exo* (4S)-Hyp (Y = H; X = OH): *cis*, C¹-*endo*
(4S)-Mpc (Y = H; X = SH): *trans*, C¹-*exo* (4R)-Mpc (Y = SH; X = H): *trans*, C¹-*endo*

Spot the difference: Conformational analysis of the 2S,4R and 2S,4S epimers of *N*-acetyl-4-mercaptopyrrolidine-2-carboxylic acid methyl esters reveals ring-pucker preferences that are opposite of those of the hydroxyproline derivatives (see

scheme). Replacement of proline or hydroxyproline in polypeptides with the chalcogen analogue should allow for fine-tuning of the complex interplay of non-covalent interactions, steric hindrance, and stereoelectronic effects.

Proline Conformations

S. A. Cadamuro, R. Reichold,
U. Kusebauch, H.-J. Musiol, C. Renner,
P. Tavan, L. Moroder* ————— 2143–2146

Conformational Properties of
4-Mercaptoproline and Related
Derivatives



Supporting information is available on the WWW
(see article for access details).



A video clip is available as Supporting Information
on the WWW (see article for access details).

Looking for outstanding employees?

Do you need another expert for your excellent team?
... Chemists, PhD Students, Managers, Professors, Sales Representatives...

Place an advert in the printed version and have it made available online for
1 month, free of charge!

Angewandte Chemie International Edition

Advertising Sales Department: Marion Schulz

Phone: 0 62 01 - 60 65 65

Fax: 0 62 01 - 60 65 50

E-Mail: MSchulz@wiley-vch.de

Service

Spotlights Angewandte's
Sister Journals ————— 1984–1985

Keywords ————— 2148

Authors ————— 2149

Preview ————— 2151