



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:

L. M. Fidalgo, G. Whyte, D. Bratton, C. F. Kaminski, C. Abell, W. T. S. Huck\*

From Microdroplets to Microfluidics: Selective Emulsion Separation in Microfluidic Devices

I. Paterson,\* E. A. Anderson, S. M. Dalby, J. Ho Lim, J. Genovino, P. Maltas, C. Moessner

Total Synthesis of Spirastrellolide A Methyl Ester. Part 1: Synthesis of an Advanced C17–C40 Bis(spiroacetal) Subunit

I. Paterson,\* E. A. Anderson, S. M. Dalby, J. Ho Lim, J. Genovino, P. Maltas, C. Moessner

Total Synthesis of Spirastrellolide A Methyl Ester. Part 2: Subunit Union and Completion of the Synthesis

X. Ning, J. Guo, M. A. Wolfert, G.-J. Boons\*

Visualizing Metabolically Labeled Glycoconjugates of Living Cells by Copper-Free and Fast Huisgen Cycloadditions

S. Ghosh, A. Mukherjee, P. J. Sadler\*, S. Verma\*

Periodic Iron Nanomineralization in Human Serum Transferrin Fibrils

M. Murata, Y. Ochi, F. Tanabe, K. Komatsu,\* Y. Murata\*

Internal Magnetic Fields of Dianions of Fullerene and Its Cage-Opened Derivatives Studied with Encapsulated H<sub>2</sub> as an NMR Spectroscopic Probe

Arthur Kornberg (1918–2007)

Fundamentals of Industrial Catalytic Processes

Calvin H. Bartholomew, Robert J. Farrauto

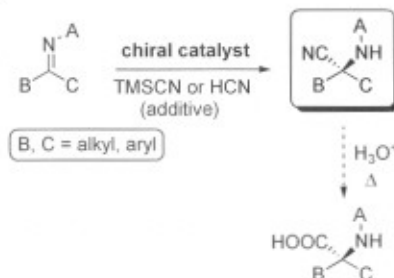
## Obituary

U. Hübscher ————— 1172

## Books

reviewed by B. Cornils ————— 1173

**Picking up the gauntlet:** The challenge of developing highly effective catalyst systems for the enantioselective Strecker reaction to convert ketimine substrates (see scheme, red; A denotes protecting group) into  $\alpha$ -amino nitriles (blue) and ultimately  $\alpha$ -amino acids has been met by several recent developments.

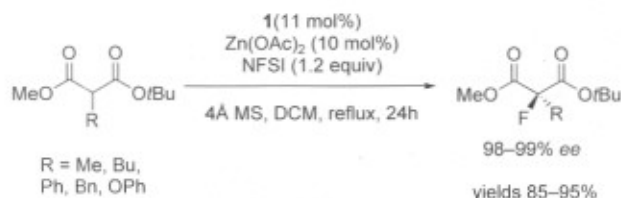


## Highlights

### Strecker Reaction

S. J. Connon\* ————— 1176–1178

The Catalytic Asymmetric Strecker Reaction: Ketimines Continue to Join the Fold



**Gimme an F:** Ever since the first asymmetric fluorination reagents were reported in 1988, the enantioselective introduction of a C–F bond at a stereogenic center has emerged as a major objective in organic

chemistry. Newly published results on the enantioselective fluorination of malonates (see scheme) are put into context in this Highlight. NFSI = *N*-fluorodibenzene-sulfonimide.

### Asymmetric Fluorination

V. A. Brunet, D. O'Hagan\* — 1179–1182

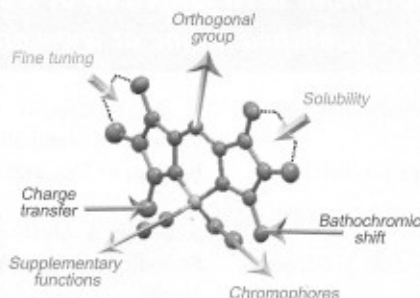
Catalytic Asymmetric Fluorination Comes of Age

## Minireviews

### Fluorescent Molecular Devices

G. Ulrich, R. Ziessel,\*  
A. Harriman — 1184–1201

The Chemistry of Fluorescent Bodipy  
Dyes: Versatility Unsurpassed



**Unexpected adaptability:** The properties of dipyrrometheneboron difluoride (F-Bodipy) dyes can be modified in many ways (see picture, B pink, N blue, C gray). This versatility has allowed new uses to be developed for this molecule. Emphasis is given to synthetic considerations, optical properties, and applications as chemical sensors, luminescent devices, and molecular materials.

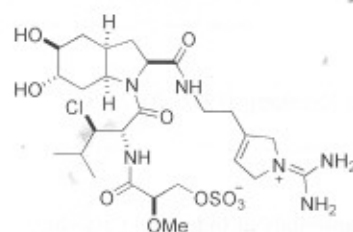
## Reviews

### Serine Protease Inhibitors

K. Ersmark, J. R. Del Valle,  
S. Hanessian\* — 1202–1223

Chemistry and Biology of the Aeruginosin  
Family of Serine Protease Inhibitors

**Oceans apart:** With sources ranging from the marine sponges in North Queensland, Australia, to the cyanobacterial water-blooms of Lake Kasumigaura, Japan, and the blue-green algae found in Hula Valley, Israel, the aeruginosin family of linear peptides exhibit potent inhibition against serine proteases such as the medically relevant thrombin, as well as other proteins involved in the blood coagulation cascade.



Chlorodysynosin A

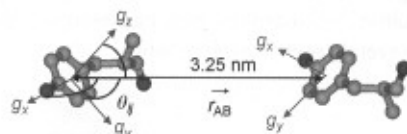
## Communications

### VIP High-Field Pulsed EPR Spectroscopy

V. P. Denysenkov, D. Biglino, W. Lubitz,  
T. F. Prisner, M. Bennati\* — 1224–1227

Structure of the Tyrosyl Biradical in Mouse  
R2 Ribonucleotide Reductase from High-  
Field PELDOR

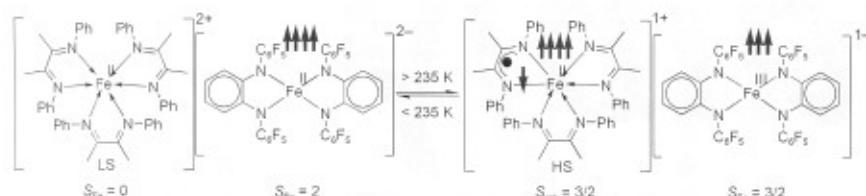
**Paramagnetic centers** rigidly embedded in proteins serve as a probe in structural studies of macromolecular complexes. Pulse EPR at high frequencies allows the determination of not only the distance but also the relative orientation of these centers (see tyrosyl radicals; C gray, O red, N blue). The method has considerable potential for studying the assembly of protein complexes.



**For the USA and Canada:**  
ANGEWANDTE CHEMIE International  
Edition (ISSN 1433-7851) is published weekly  
by Wiley-VCH, PO Box 191161, 69451 Wein-  
heim, 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 POST-  
MASTER: send address changes to *Angewandte  
Chemie*, Wiley-VCH, 111 River Street, Hoboken,  
NJ 07030. Annual subscription price for insti-  
tutions: 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.



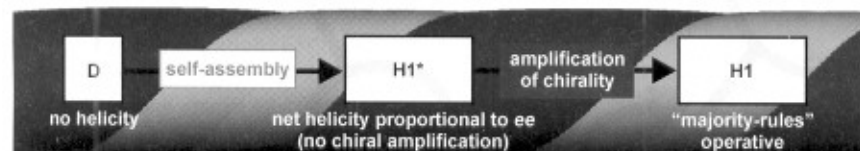
**A rad. dad:** The electronic structure of  $[\text{Fe}(\text{dad})_3][\text{Fe}(\text{pda})_2]$  was investigated by X-ray crystallography, Mössbauer spectroscopy, and magnetic susceptibility measurements as a function of the temperature. Reversible one-electron transfer from

the dianion (high-spin  $\text{Fe}^{\text{II}}$ ) to the dication (low-spin  $\text{Fe}^{\text{II}}$ ) generates a monoanion (intermediate-spin  $\text{Fe}^{\text{III}}$ ) and a monocation (high-spin  $\text{Fe}^{\text{II}}$  and  $\alpha$ -diimine  $\pi$  radical anion) above 235 K.

## Spin Crossover

M. M. Khusniyarov,\* T. Weyhermüller,  
E. Bill, K. Wieghardt\* — 1228–1231

Reversible Electron Transfer Coupled to Spin Crossover in an Iron Coordination Salt in the Solid State



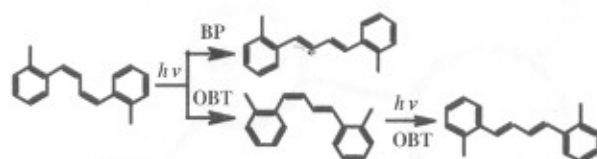
**Chiral amplification in action:** Kinetic studies on the self-assembly of bis(merocyanine) dyes reveal that two phenomena that have been suggested to be of importance for natural homochirogenesis, namely, autocatalysis and the

"majority-rules" effect, are both involved in the evolution of homochiral helical dye nanorods (see picture, **D** = supramolecular oligomer species; **H1** = kinetically self-assembled nanorods; **H1\*** = **H1**-type aggregate precursors).

## Chiral Amplification

A. Lohr, F. Würthner\* — 1232–1236

Evolution of Homochiral Helical Dye Assemblies: Involvement of Autocatalysis in the "Majority-Rules" Effect



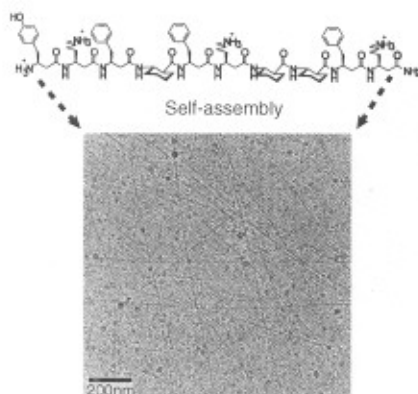
**Let's twist again:** In the isomerization of *cis,cis*-1,4-di-*o*-tolyl-1,3-butadiene in isotactic glass at 77 K, hula-twist pathways are eliminated, because unstable photo-

product conformers do not form. Instead, the isomerization is found to proceed by bicycle-pedal (BP) and one-bond-twist (OBT) mechanisms (see scheme).

## Photoisomerization

J. Saltiel,\* M. A. Bremer,  
S. Laohhasurayotin,  
T. S. R. Krishna — 1237–1240

Photoisomerization of *cis,cis*- and *cis,trans*-1,4-Di-*o*-tolyl-1,3-butadiene in Glassy Media at 77 K: One-Bond-Twist and Bicycle-Pedal Mechanisms



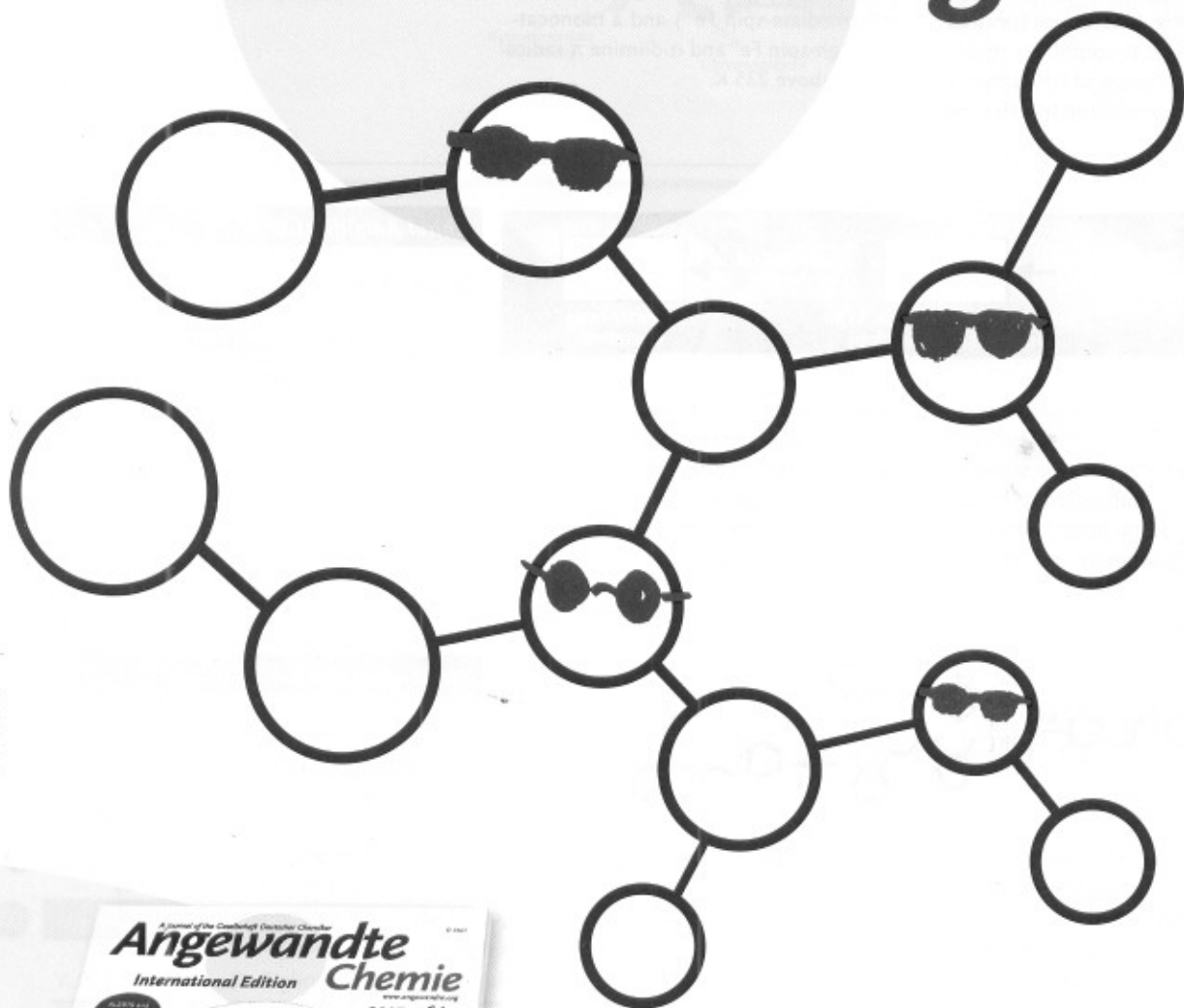
**More than a pretty phase:** A class of helical  $\beta$ -peptides has been discovered that form lyotropic liquid-crystalline (LC) phases in water. The  $\beta$ -peptide sequence strongly affects the mode of assembly and ultimately whether a LC phase is formed. For a non-globally amphiphilic  $\beta$ -peptide that can form a LC phase, cryo-TEM revealed thin fibers several micrometers in length, consistent with Onsager theory.

## Nanostructured Materials

W. C. Pomerantz, V. M. Yuwono,  
C. L. Pizzey, J. D. Hartgerink,\*  
N. L. Abbott,\*  
S. H. Gellman\* — 1241–1244

Nanofibers and Lyotropic Liquid Crystals from a Class of Self-Assembling  $\beta$ -Peptides

# Incredibly incognito!



386405711\_58



Did you know that *Angewandte Chemie* is owned by the German Chemical Society (Gesellschaft Deutscher Chemiker, GDCh)? With nearly 30000 members, the GDCh is the largest chemical society in continental Europe and holds complete responsibility over the contents of *Angewandte*. The GDCh appoints the members of *Angewandte's* editorial board and international advisory board; the editor-in-chief is appointed jointly by the GDCh and the publishers. Wiley-VCH has collaborations with over 50 scientific societies and institutions; the parent company John Wiley & Sons collaborates with many more still.

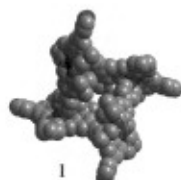
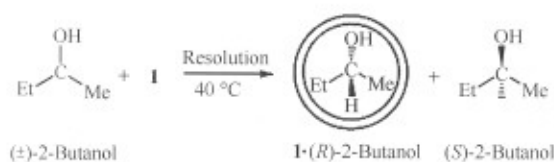
service@wiley-vch.de  
www.angewandte.org



GESELLSCHAFT  
DEUTSCHER CHEMIKER



WILEY-VCH



**Only half may enter:** A homochiral porous nanoscale metallacycle has been efficiently self-assembled from semiflexible enantiopure metallosalen complexes with complementary coordination motifs. Single crystals of the macromolecule (see

structure; C gray, Zn purple, O red, N blue) show a reversible and controllable dynamic behavior. Particularly, the metallacycle can be used to resolve small racemic alcohols with high enantioselectivity (over 99.0% *ee*).

## Porous Assemblies

G. Li, W. Yu, J. Ni, T. Liu, Y. Liu, E. Sheng, Y. Cui\* 1245–1249

Self-Assembly of a Homochiral Nanoscale Metallacycle from a Metallosalen Complex for Enantioselective Separation

**The benefits of separation:** For homologous polymers having similar backbone composition and charge/tail ratios, placing the charge and alkyl tail on spatially separated centers results in a higher membrane-disrupting ability, as evident from the increased antibacterial and hemolytic activities. The spatial separation particularly amplifies mammalian cell toxicity (see picture).

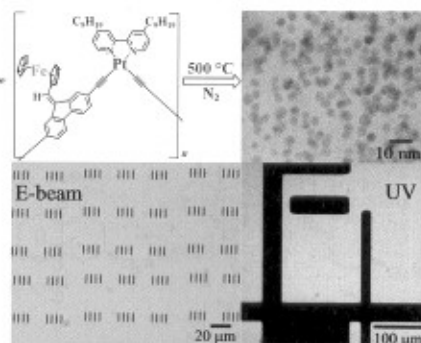


## Antimicrobial Polymers

V. Sambhy, B. R. Peterson, A. Sen\* 1250–1254

Antibacterial and Hemolytic Activities of Pyridinium Polymers as a Function of the Spatial Relationship between the Positive Charge and the Pendant Alkyl Tail

**Micropatterns of arrays** of ferromagnetic face-centered tetragonal FePt nanoparticles can be fabricated from thin films of a novel air- and moisture-stable bimetallic pyroferroplatinene precursor, which can be utilized directly as a negative resist in both electron-beam lithography and UV photolithography.



## Metallopolymers

K. Liu, C.-L. Ho, S. Aouba, Y. Zhao, Z.-H. Lu, S. Petrov, N. Coombs, P. Dube, H. E. Ruda,\* W.-Y. Wong,\* I. Manners\* 1255–1259

Synthesis and Lithographic Patterning of FePt Nanoparticles Using a Bimetallic Metallopolymers Precursor

**A new concept for fabricating nanocarriers** carrying free DNA for gene delivery to overcome the intracellular dissociation barrier of cationic polymer/DNA complexes is presented. Free DNA plasmids (shown in green) are encapsulated in a nanocapsule core, which is protected by a hydrophobic membrane (purple) with a poly(ethylene glycol) outer layer (blue). The nanocapsules can release free DNA into the cells and have high in vitro and in vivo transfection efficiency.



## Gene Delivery

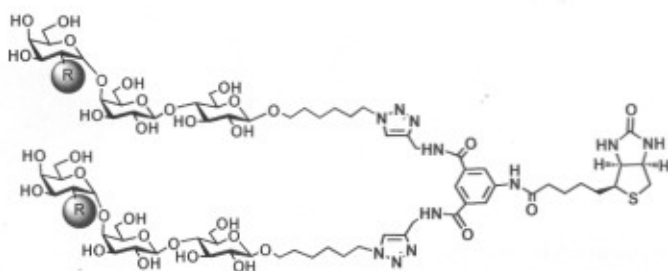
P. Xu, S.-Y. Li, Q. Li, E. A. Van Kirk, J. Ren,\* W. J. Murdoch, Z. Zhang, M. Radosz, Y. Shen\* 1260–1264

Virion-Mimicking Nanocapsules from pH-Controlled Hierarchical Self-Assembly for Gene Delivery



## Glycoconjugates

R. R. Kale, C. M. McGannon,  
C. Fuller-Schaefer, D. M. Hatch,  
M. J. Flagler, S. D. Gamage, A. A. Weiss,\*  
S. S. Iyer\* ————— 1265–1268



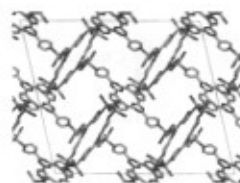
Differentiation between Structurally  
Homologous Shiga 1 and Shiga 2 Toxins  
by Using Synthetic Glycoconjugates

**Choose your poison:** Shiga toxins 1 and 2 are the major virulence factors of *E. coli* O157:H7. However, Shiga 2 is more potent than Shiga 1. Biotinylated glycoconjugates have been developed that differentiate between these structurally

homologous toxins (see picture; R=OH: selective for Shiga 1; R=NHAc: selective for Shiga 2). These synthetic materials efficiently capture toxins without interference from the sample matrix.

## Porous Networks

M. Kawano,\* T. Haneda, D. Hashizume,  
F. Izumi, M. Fujita\* ————— 1269–1271



microcrystalline powder

crystal

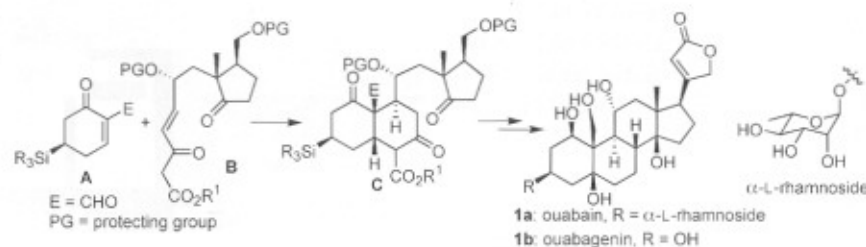
A Selective Instant Synthesis of a  
Coordination Network and Its Ab Initio  
Powder Structure Determination

**Fast powders and slow crystals:** A uniform powder sample of a flexible porous coordination network is prepared in high yield by kinetically controlled synthesis and its crystal structure solved by synchrotron ab initio powder X-ray diffraction (see pic-

ture). Crystals of a totally different porous network with larger channels for guest encapsulation are also obtained by thermodynamic control in a slow crystallization process.

## Steroid Synthesis

H. Zhang, M. Sridhar Reddy, S. Phoenix,  
P. Deslongchamps\* ————— 1272–1275



Total Synthesis of Ouabagenin and  
Ouabain

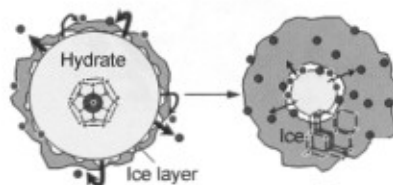
**The highly oxygenated steroid ouabagenin (1b)** and its glycoside ouabain (1a) were prepared by a strategy based on a polyanionic cyclization. Starting building blocks A and B were combined to give the

key intermediate C and transformed into 1b in 27 steps. Finally, ouabagenin (1b) was converted into ouabain (1a) in six steps (see scheme).

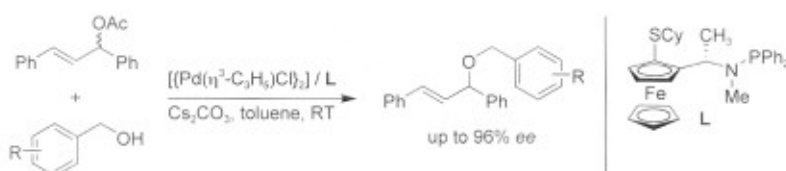
## Gas Hydrates

S. Takeya, J. A. Ripmeester\* 1276–1279

Dissociation Behavior of Clathrate  
Hydrates to Ice and Dependence  
on Guest Molecules



**Self-preservation:** The existence of gas hydrates (see picture) outside their stability zone for prolonged periods is shown to depend on the interaction strength between guest molecules (red) and water (blue), as reflected by the dissociation pressures at 273 K.



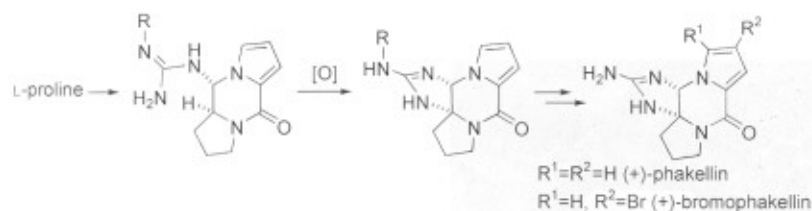
**An enantioselective C–O bond-forming** reaction proceeds well under palladium catalysis with newly developed N–P,S ligands with a ferrocene motif (see scheme). Nonconjugated substituents on

the benzylic alcohol substrate lead to an increase in enantioselectivity with increasing electron-donating ability in the title reaction with racemic 1,3-diphenyl-2-propenyl acetate. Cy = cyclohexyl.

## Asymmetric Catalysis

F. L. Lam, T. T.-L. Au-Yeung, F. Y. Kwong, Z. Zhou, K. Y. Wong, A. S. C. Chan\* 1280–1283

Palladium–(*S*,*R*)-FerroNPS-Catalyzed Asymmetric Allylic Etherification: Electronic Effect of Nonconjugated Substituents on Benzylic Alcohols on Enantioselectivity



**A unique oxidative cyclization** of a tricycle bearing a guanidine aminal provides a concise route to the enantioselective synthesis of (+)-phakellin and (+)-monobromophakellin in nine and ten steps, respectively, starting from L-proline

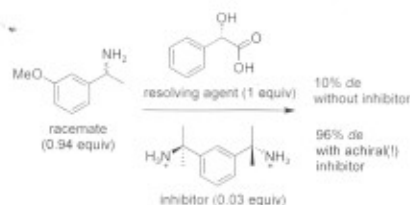
(see scheme). This sequence provides a simple annulation strategy applicable to the preparation of more complex members of this family of marine sponge-derived alkaloids including palau'amine.

## Alkaloid Synthesis

S. Wang, D. Romo\* 1284–1286

Enantioselective Synthesis of (+)-Monobromophakellin and (+)-Phakellin: A Concise Phakellin Annulation Strategy Applicable to Palau'amine

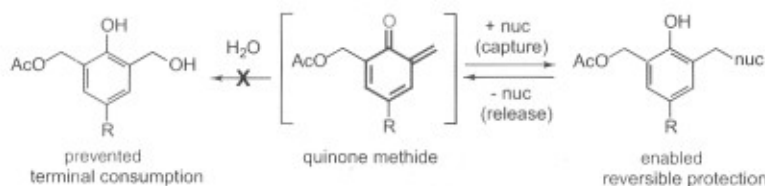
**You say you want a resolution:** Nucleation inhibitors for the resolution of diastereomers by selective crystallization have been designed and tested. The resolution of racemic 3-methoxyphenylethylamine was optimized with (*S*)-mandelic acid as the resolving agent (see scheme). Multifunctional inhibitors are particularly effective.



## Resolution of Diastereomers

M. Leeman, G. Brasile, E. Gelsens, T. Vries, B. Kaptein, R. Kellogg\* 1287–1290

Structural Aspects of Nucleation Inhibitors for Diastereomeric Resolutions and the Relationship to Dutch Resolution



**Who wants to live forever?** Compounds that act as strong nucleophiles and good leaving groups repeatedly capture and release a transient quinone methide to extend its effective lifetime under aqueous

conditions and promote DNA cross-linking (see scheme). This finding may expand the biological and therapeutic activity of quinone methides.

## Quinone Methides

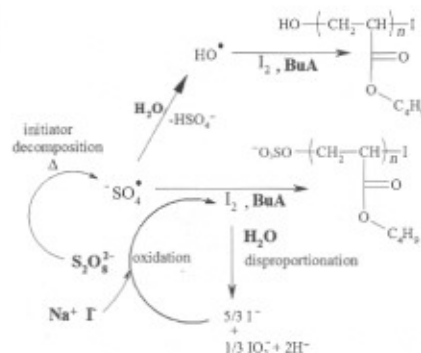
H. Wang, M. S. Wahi, S. E. Rokita\* 1291–1293

Immortalizing a Transient Electrophile for DNA Cross-Linking

## Living Radical Polymerization

J. Tonnar,  
P. Lacroix-Desmazes\* — 1294–1297

- Use of Sodium Iodide as the Precursor to the Control Agent in *Ab Initio* Emulsion Polymerization

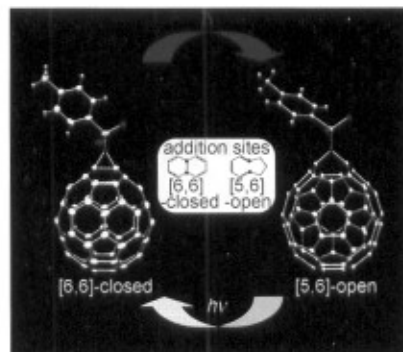


**Iodide does the job:** Water-soluble, harmless, cheap, and nonhazardous NaI was used in combination with  $K_2S_2O_8$  instead of  $I_2$  itself to produce an uncolored living poly(butyl acrylate) latex of controlled molecular weight by a single-step polymerization process (see scheme for one polymerization pathway). Reactivation of the polymer then yielded a block-copolymer latex. BuA = butyl acrylate.

## Fullerene Chemistry

T. Nakahodo, M. Okada, H. Morita,  
T. Yoshimura, M. O. Ishitsuka, T. Tsuchiya,  
Y. Maeda, H. Fujihara, T. Akasaka,\* X. Gao,  
S. Nagase\* — 1298–1300

- [2+1] Cycloaddition of Nitrene onto  $C_{60}$   
Revisited: Interconversion between an  
Aziridinofullerene and an Azafulleroid

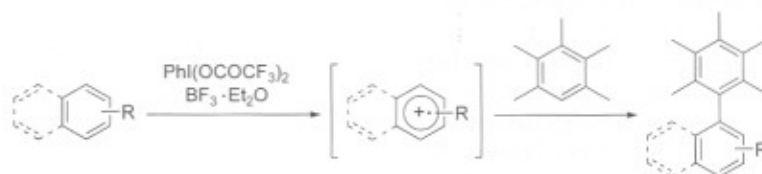


**An open and closed case:** The reversible interconversion of a [1,2]aziridinofullerene and a [1,6]azafulleroid represents the first such example for a monosubstituted fullerene. While the [1,2]aziridinofullerene rearranges thermally to the [1,6]azafulleroid, the [1,6]azafulleroid rearranges photochemically to the [1,2]aziridinofullerene in high yield (see picture).

## Cross-Coupling

T. Dohi, M. Ito, K. Morimoto, M. Iwata,  
Y. Kita\* — 1301–1304

- Oxidative Cross-Coupling of Arenes  
Induced by Single-Electron Transfer  
Leading to Biaryls by Use of  
Organoiodine(III) Oxidants



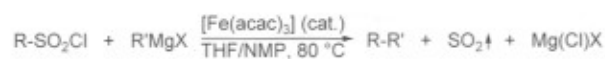
**Cross-coupling goes green:** The direct oxidative cross-coupling reaction of naphthalenes and other electron-rich arenes with mesitylenes has been achieved in high yields using hypervalent iodine(III) reagents. The key for reaction

success is the exclusive generation of cation radical intermediates of naphthalenes and the use of mesitylenes as the reactive and less dimerizable nucleophiles. R = alkyl, aryl, halogen, ester, alkoxy, etc.

## Homogeneous Catalysis

C. M. Rao Volla, P. Vogel\* — 1305–1307

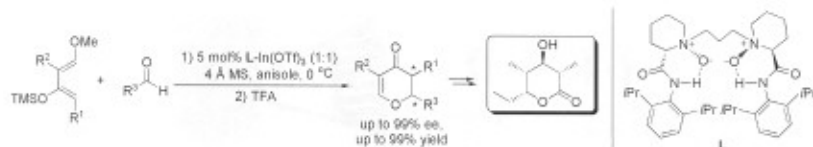
- Iron-Catalyzed Desulfinylative C–C Cross-Coupling Reactions of Sulfonyl Chlorides with Grignard Reagents



**A friendly couple:** Conditions have been uncovered that allow the desulfinylative C–C cross-coupling reaction of inexpensive sulfonyl chlorides and Grignard reagents (see scheme, acac = acetylac-

etonate, NMP = *N*-methylpyrrolidone). The reactions rely on environmentally friendly iron catalysts and do not require expensive and/or toxic ligands.





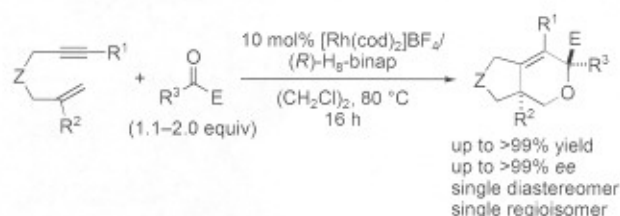
**In-teresting catalyst:** An asymmetric hetero Diels–Alder reaction between Danishefsky's dienes and various aldehydes using an *N,N'*-dioxide/ $\text{In}(\text{OTf})_3$  complex affords highly substituted chiral

dihydropyranones with up to 99% ee (see scheme). The catalyst was applied to the synthesis of triketide from propionaldehyde in 72% yield and with 97% ee.

## Asymmetric Catalysis

Z. Yu, X. Liu, Z. Dong, M. Xie, X. Feng\* 1308–1311

An *N,N'*-Dioxide/ $\text{In}(\text{OTf})_3$  Catalyst for the Asymmetric Hetero-Diels–Alder Reaction Between Danishefsky's Dienes and Aldehydes: Application in the Total Synthesis of Triketide



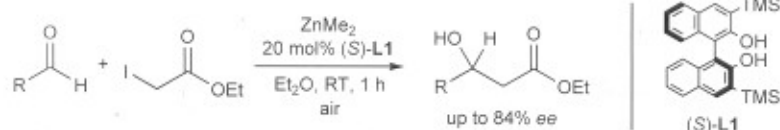
**Two quaternary carbon centers** are created in the title reaction to form fused dihydropyrans (see scheme). The same catalyst promotes the *ortho* functionalization of aryl ketones with 1,6-enynes with

excellent regio- and enantioselectivity. Z = amide,  $\text{C}(\text{CO}_2\text{Me})_2$ , O; E =  $\text{CO}_2\text{Et}$ , Ac;  $\text{R}^1$  = Me, aryl,  $\text{CO}_2\text{Me}$ ;  $\text{R}^2$  = Me;  $\text{R}^3$  = Me,  $\text{CO}_2\text{Et}$ .

## Asymmetric Catalysis

K. Tanaka,\* Y. Otake, H. Sagae, K. Noguchi, M. Hirano 1312–1316

Highly Regio-, Diastereo-, and Enantioselective [2+2+2] Cycloaddition of 1,6-Enynes with Electron-Deficient Ketones Catalyzed by a Cationic  $\text{Rh}^I/\text{H}_8\text{-binap}$  Complex



**120 years after** the discovery of the Reformatsky reaction, the first effective catalytic enantioselective Reformatsky reaction with aldehydes using a binol derivative as a chiral catalyst is presented (see scheme;

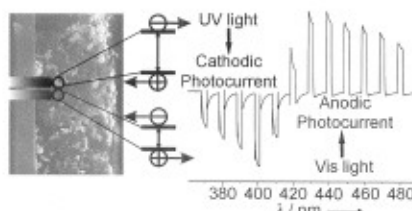
TMS = trimethylsilyl). The reaction is performed with ethyl iodoacetate and  $\text{Me}_2\text{Zn}$ . The presence of air is found to be crucial to reach high conversions and selectivities.

## Asymmetric Catalysis

M. Á. Fernández-Ibáñez, B. Maciá, A. J. Minnaard, B. L. Feringa\* 1317–1319

Catalytic Enantioselective Reformatsky Reaction with Aldehydes

**A light switch:** A nanocrystalline hybrid photoelectrode consisting of nitrogen-modified titanium dioxide (an n-type semiconductor) and copper(I) iodide (a p-type semiconductor) on conducting glass shows wavelength-controlled switching of the photocurrent in the narrow range from 410 to 420 nm (see picture).



## Photoelectrochemistry

R. Beranek, H. Kisch\* 1320–1322

A Hybrid Semiconductor Electrode for Wavelength-Controlled Switching of the Photocurrent Direction

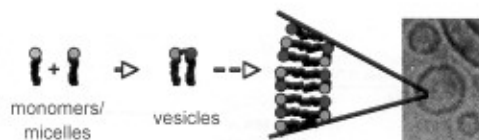
## Membranes for Artificial Cells

H. H. Zepik,\* P. Walde,\*

T. Ishikawa — 1323–1325



Vesicle Formation from Reactive Surfactants



**Zwitterionic gemini vesicles:** Alkylphosphothioates and *N*-(2-bromoethyl)-*N,N*-dimethylalkylammonium surfactants react quantitatively in aqueous buffer to form zwitterionic gemini surfactants. The reaction products transform sponta-

neously into lipid vesicles that behave similarly to phospholipid vesicles. The zwitterionic gemini vesicles encapsulate water-soluble molecules; when fed with the single-chain precursors, they grow quantitatively.

## Cluster Compounds

C. E. Anson, A. Eichhöfer, I. Issac,

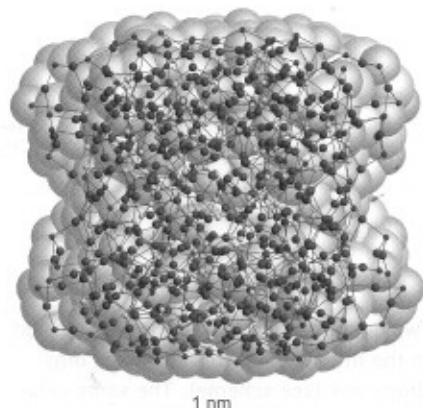
D. Fenske,\* O. Fuhr, P. Sevilano,

C. Persau, D. Stalke,

J. Zhang — 1326–1331

Synthesis and Crystal Structures of the Ligand-Stabilized Silver Chalcogenide Clusters  $[\text{Ag}_{154}\text{Se}_{77}(\text{dppxy})_{18}]$ ,  $[\text{Ag}_{320}(\text{StBu})_{60}\text{S}_{130}(\text{dppp})_{12}]$ ,  $[\text{Ag}_{352}\text{S}_{128}(\text{StC}_5\text{H}_{11})_{96}]$ , and  $[\text{Ag}_{490}\text{S}_{188}(\text{StC}_5\text{H}_{11})_{114}]$

**The reaction of silver thiolates with**  $\text{Se}(\text{SiMe}_3)_2$  or  $\text{S}(\text{SiMe}_3)_2$  in the presence of bidentate phosphanes leads to the formation of very large cluster molecules with distorted spherical metal–chalcogenide cores with diameters of 2–4 nm. The surfaces of these cores are protected by thiolate and phosphane ligands. Structural analyses show a higher degree of disorder with increasing number of Ag atoms. The compound with the highest silver content (see figure) has an idealized formulation  $[\text{Ag}_{490}\text{S}_{188}(\text{StC}_5\text{H}_{11})_{114}]$ .

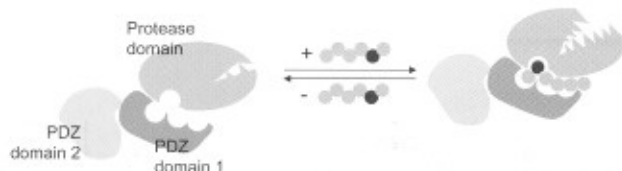


## Allosteric Protease Regulation

M. Meltzer, S. Hasenbein, P. Hauske, N. Kucz, M. Merdanovic, S. Grau, A. Beil, D. Jones, T. Krojer, T. Clausen, M. Ehrmann,\* M. Kaiser\* — 1332–1334



Allosteric Activation of HtrA Protease DegP by Stress Signals during Bacterial Protein Quality Control



**Unleashing the proteolytic activity of DegP:** A study with synthetic mimics of cellular stress signals reveals an allosteric (chemical) activation mechanism of the bacterial HtrA protease DegP, leading to a fine-tuned amplification of protein degra-

dation during bacterial protein quality control (see scheme: binding of a peptide sequence (circles) increases activation. The nature of the penultimate residue (red) is shown to be decisive).



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 \_\_\_\_\_ 1168–1169

Keywords \_\_\_\_\_ 1336

Authors \_\_\_\_\_ 1337

Vacancies \_\_\_\_\_ 1167

Preview \_\_\_\_\_ 1339

## Corrigendum

There was a small error in the second sentence on page 8576 of this Communication. This sentence should read: "The ratio of intensities of acetylene to aromatic peaks was calculated using variable-contact-time  $^1\text{H}$ - $^{13}\text{C}$  CP/MAS NMR spectra with the following results: CMP-1 0.27 (expected value 0.40); CMP-2 0.18 (expected value 0.25); CMP-3 0.10 (expected value 0.18)."

The authors apologize for this error and wish to note that none of the interpretations in the paper are affected by this change.

Conjugated Microporous  
Poly(aryleneethynylene) Networks

J.-X. Jiang, F. Su, A. Trewin, C. D. Wood,  
N. L. Campbell, H. Niu, C. Dickinson,  
A. Y. Ganin, M. J. Rosseinsky,  
Y. Z. Khimyak, A. I. Cooper\* 8574–8578

Angew. Chem. Int. Ed. 2007, 46

DOI 10.1002/anie.200701595

## Deadline for recruitment adverts

|       |             |                            |
|-------|-------------|----------------------------|
| 12/08 | February 14 | Publication date: March 7  |
| 13/08 | February 21 | Publication date: March 14 |

### 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

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

## Vacancy

### HUMBOLDT-UNIVERSITÄT ZU BERLIN



The faculty of Mathematics and Natural Sciences I, Department of Chemistry, at Humboldt-Universität zu Berlin invites applications for the position of a

#### Full Professor (W3) "Inorganic Chemistry and Functional Materials"

Applicants should have an outstanding record in the areas of synthetic inorganic chemistry of functional materials. A research focus on inorganic chemistry of molecular pre-cursors for materials, catalytically active compounds, or inorganic-organic hybrid materials is appreciated. The research field should complement the existing research activities of the Department of Chemistry. The candidates are expected to cooperate e.g. with research institutes within and outside the Humboldt-Universität or with companies at the science park Berlin-Adlershof and in the Berlin area. The candidate is expected to represent the entire field of Inorganic Chemistry in teaching.

Applicants must meet the legal requirements for a university professor as stipulated in § 100 BerlHG. Humboldt-Universität zu Berlin is an equal opportunity employer, committed to the advancement of individuals without regard to ethnicity, religion, sex, age, disability or any other protected status.

Applications with necessary documents stating code number PR/001/08 should be sent within 4 weeks to Humboldt-Universität zu Berlin, Dekan der Mathematisch-Naturwissenschaftlichen Fakultät I, Prof. Dr. C. Limberg, Unter den Linden 6, D-10099 Berlin. Application materials will not be returned.