



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:

J. K. Jabor, R. Stöber, N. H. Thong, B. Ziemer, M. Meisel*
Unexpected Reactions of $\text{Ag}(\text{NCCH}_3)_3[(\text{V}_2\text{O}_3)_2(\text{RPO}_3)_4\text{F}]$ with H_2 and NO .

J. Barluenga,* P. Moriel, C. Valdés, F. Aznar
N-Tosylhydrazones as Reagents for Cross-Coupling Reactions: A Novel Route for the Synthesis of Polysubstituted Olefins

C. Wang, Y. Hou,* J. Kim, S. Sun*
A General Strategy for Synthesizing FePt Nanowires and Nanorods

J. Ge, Y. Hu, Y. Yin*
Highly Tunable Superparamagnetic Colloidal Photonic Crystals

J. R. Johnson, N. Fu, E. Arunkumar, W. M. Leevy, S. T. Gammon, D. Piwnica-Worms, B. D. Smith*
Squaraine Rotaxanes: Superior Substitutes for Cy-5 in Molecular Probes for Near-Infrared Fluorescence Cell Imaging

K. E. Augustyn, J. C. Genereux, J. K. Barton*
Distance-independent DNA Charge Transport across an Adenine Tract

News

Macromolecular Chemistry: Buback honored _____ 4606

Physical Chemistry: Stubenrauch awarded _____ 4606

Books

Atoms and Alchemy

William R. Newman

reviewed by B. Kahr _____ 4608



Crown jewels: The judicious use of weakly coordinating anions has recently led to the first direct syntheses of alkali-metal complexes of siloxane-based crown ethers and cryptands. These findings have implications in the areas of host–guest chemistry, inorganic ring transformations, and ring-opening polymerization.

Highlights

Silicon Crown Ethers

J. S. Ritch, T. Chivers* _____ 4610–4613

Silicon Analogues of Crown Ethers and Cryptands: A New Chapter in Host–Guest Chemistry?



Leading the way to highly efficient and generally applicable enantioselective Morita–Baylis–Hillman (MBH) reactions (see scheme; EWG: electron-withdrawing group) is the use of bifunctional organo-catalysis. Tethering both Lewis base (LB) and Lewis acid (LA) units to a chiral rigid backbone often generates an efficient catalyst for the MBH reaction. Cinchona alkaloids, binol, and ureas are excellent starting points for further catalyst development.

Minireviews

Morita–Baylis–Hillman Reaction

G. Masson,* C. Housseman, J. Zhu* _____ 4614–4628

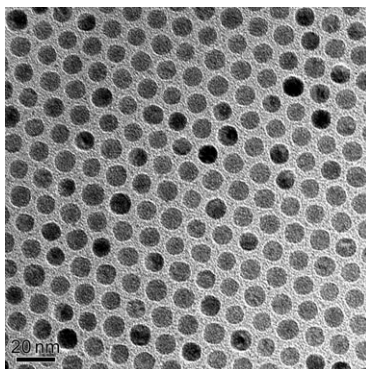
The Enantioselective Morita–Baylis–Hillman Reaction and Its Aza Counterpart

Reviews

Nanostructures

J. Park, J. Joo, S. G. Kwon, Y. Jang,
T. Hyeon* ————— 4630 – 4660

Synthesis of Monodisperse Spherical
Nanocrystals



All the same: The synthesis of monodisperse nanocrystals is of key importance for many future applications, because their physical properties depend strongly on their dimensions. Mechanistic studies reveal that monodisperse nanocrystals are produced when a burst of nucleation is combined with a subsequent diffusion-controlled growth process. This Review summarizes recent progress made on the synthesis of monodisperse spherical nanocrystals (TEM image: iron oxide nanoparticles).

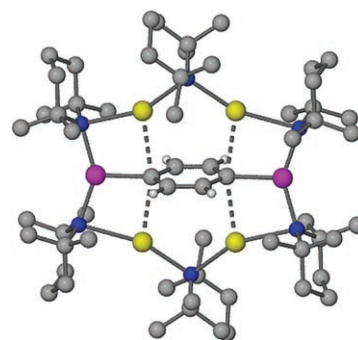
Communications

Inverse-Crown Complexes

L. M. Carrella, W. Clegg, D. V. Graham,
L. M. Hogg, A. R. Kennedy, J. Klett,
R. E. Mulvey,* E. Rentschler,
L. Russo ————— 4662 – 4666

Sodium-Mediated Manganation: Direct
Mono- and Dimanganation of Benzene
and Synthesis of a Transition-Metal
Inverse-Crown Complex

Inside out approach: Twofold deprotonation of benzene by a sodium monoalkyl bisamido manganate(II) reagent derived from BuNa, 2,2,6,6-tetramethylpiperidine, and $\text{Mn}(\text{CH}_2\text{SiMe}_3)_2$ has produced the first inverse-crown complex in which the transition-metal atoms are incorporated in the host (see X-ray structure, blue N, green Na, purple Mn). Variable-temperature magnetization measurements show that the complex is antiferromagnetic.

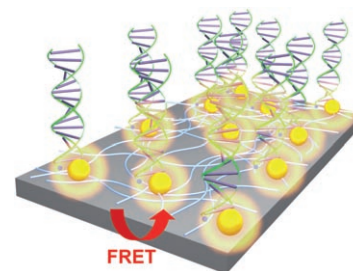


DNA Microarrays

K. Lee, J.-M. Rouillard, T. Pham, E. Gulari,
J. Kim* ————— 4667 – 4670

Signal-Amplifying Conjugated Polymer–
DNA Hybrid Chips

Expand on that: Signal-amplifying DNA chips have been fabricated by a light-directed on-chip DNA synthesis on a thin film of a photostable conjugated polyoxadiazole derivative. The fluorescence signal from a hexachlorofluorescein-labeled target DNA was increased by a large amount through efficient Förster energy transfer from the conjugated polymer to the dye after DNA–DNA hybridization when compared with the signal from a control slide.

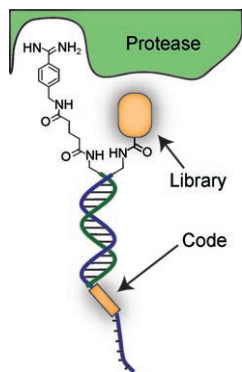


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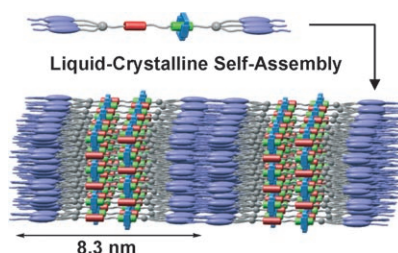
Maturing is easy to do: Annealing benzamidine–oligonucleotide conjugates with a library of DNA-encoded compounds allows the affinity capture of pharmacophores that are capable of binding to exosites adjacent to the primary substrate-binding pocket of the serine protease trypsin. Selected conjugates show an improvement in IC_{50} values of several orders of magnitude compared with the starting benzamidine.

DNA-Encoded Library

S. Melkko, Y. Zhang, C. E. Dumelin, J. Scheuermann, D. Neri* — 4671–4674

Isolation of High-Affinity Trypsin Inhibitors from a DNA-Encoded Chemical Library

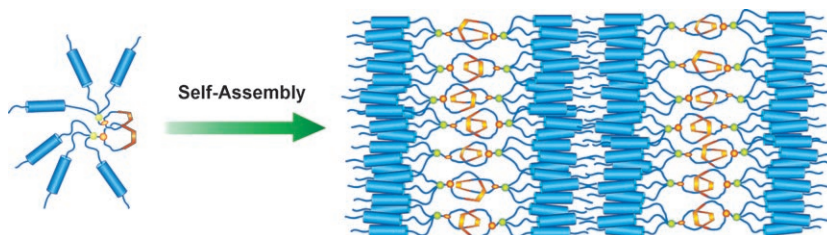
Entering a new phase: Mesogenic stoppers (purple) at the ends of the rod section of a switchable donor–acceptor [2]rotaxane induce the formation of a smectic A liquid-crystalline (LC) phase over a wide temperature range. The bistable [2]rotaxane which contains a tetracationic cyclophane (blue), a tetra-thiafulvalene unit (green), and a 1,5-dioxynaphthalene unit (red) self-assembles into a LC phase with a layer spacing of about 8 nm (see picture).



Liquid Crystals

I. Aprahamian, T. Yasuda, T. Ikeda, S. Saha, W. R. Dichtel, K. Isoda, T. Kato,* J. F. Stoddart* — 4675–4679

A Liquid-Crystalline Bistable [2]Rotaxane



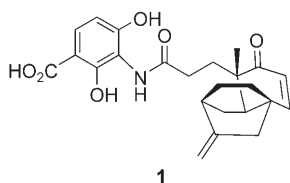
Getting organized: A free [2]catenane and its copper complex having forklike mesogens form nanosegregated liquid-crystalline (LC) structures over wide temperature ranges. The ordered arrangement of the

free [2]catenane in the LC smectic A phase exerts a significant effect on the conformation of the two macrocycles, which is fixed in the ordered assembled state (see picture).

Supramolecular Chemistry

E. D. Baranoff, J. Voignier, T. Yasuda, V. Heitz,* J.-P. Sauvage,* T. Kato* — 4680–4683

A Liquid-Crystalline [2]Catenane and Its Copper(I) Complex



Two birds with one stone: Platencin (**1**) is a novel and potent broad-spectrum Gram-positive antibiotic. Whereas platensimycin is a selective inhibitor of FabF, platencin exerts its activity by a novel mode of action by dual inhibition of FabH and FabF.

Antibiotics

H. Jayasuriya,* K. B. Herath, C. Zhang, D. L. Zink, A. Basilio, O. Genilloud, M. T. Diez, F. Vicente, I. Gonzalez, O. Salazar, F. Pelaez, R. Cummings, S. Ha, J. Wang, S. B. Singh* — 4684–4688

Isolation and Structure of Platencin: A FabH and FabF Dual Inhibitor with Potent Broad-Spectrum Antibiotic Activity

Incredibly international!



Although *Angewandte Chemie* is owned by the German Chemical Society (Gesellschaft Deutscher Chemiker, GDCh) and is published by Wiley-VCH in a charming small town in southwest Germany, it is international in every other respect. Authors and referees from around the globe contribute to its success. Most of the articles are submitted from China (20%), USA (16%), and Japan (13%) - only then comes Germany (12%). Most of the referee reports come from Germany and the USA, but Japan and Western Europe are also well represented.

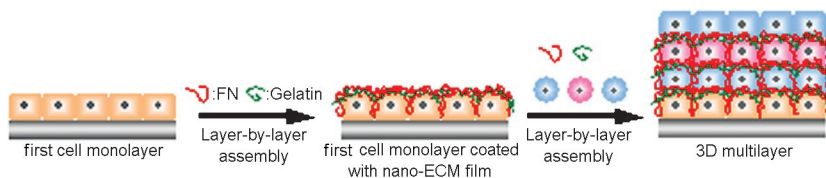


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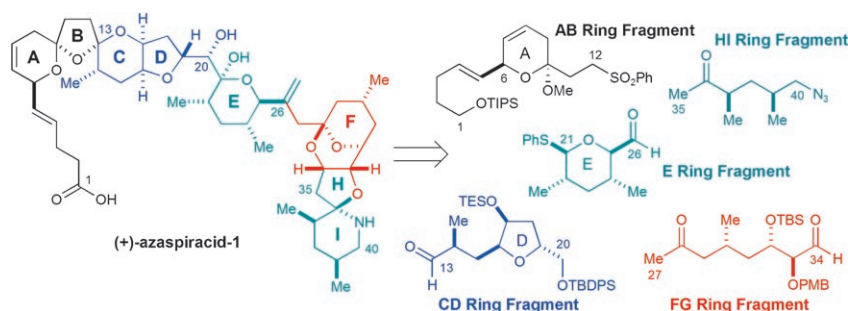
Layer it on: Cellular multilayers were fabricated by preparing nanometer-sized extracellular matrix (ECM) films (6-nm thick) with fibronectin (FN) and gelatin on the surface of each cell layer. The four-

layer cellular architecture was well organized and self-standing. Xenogenic human bilayer architectures similar to blood vessels were prepared by fabrication of the nanofilms on cell surfaces.

Cellular Multilayers

M. Matsusaki, K. Kadowaki, Y. Nakahara, M. Akashi* 4689–4692

Fabrication of Cellular Multilayers with Nanometer-Sized Extracellular Matrix Films



Has aspirations: The total synthesis of (+)-azaspiracid-1 has been realized. The ABCD fragment was synthesized in 20 linear steps and 16% overall yield through the enantioselective syntheses of the AB sulfone and the CD aldehyde, their coupling by a sulfone anion addition, and a thermodynamically controlled bis(spiro-

ketalization) event. The E, FG, and HI ring fragments were synthesized enantioselectively and then coupled by using aldol methodology. Finally, a complex addition of the anion of the anomeric EFGHI sulfone to the ABCD aldehyde completed the synthesis in 26 linear steps and 2.7% yield.

Azaspiracid (1)

D. A. Evans,* L. Kværnø, J. A. Mulder, B. Raymer, T. B. Dunn, A. Beauchemin, E. J. Olhava, M. Juhl, K. Kagechika 4693–4697

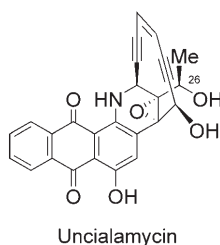
Total Synthesis of (+)-Azaspiracid-1. Part I: Synthesis of the Fully Elaborated ABCD Aldehyde

Azaspiracid (2)

D. A. Evans,* T. B. Dunn, L. Kværnø, A. Beauchemin, B. Raymer, E. J. Olhava, J. A. Mulder, M. Juhl, K. Kagechika, D. A. Favor 4698–4703

Total Synthesis of (+)-Azaspiracid-1. Part II: Synthesis of the EFGHI Sulfone and Completion of the Synthesis

Unseal the secrets of unciamycin: The total synthesis of the C26 epimers of the newly discovered enediyne natural product allows its stereochemical assignment and further biological investigations of this potent antibiotic. Key steps involve the addition of an acetylide to a pyridinium species, an intramolecular formation of the enediyne, and Hauser annulation to form the anthraquinone moiety.



Unciamycin

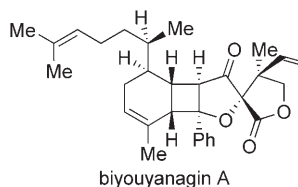
K. C. Nicolaou,* H. Zhang, J. S. Chen, J. J. Crawford, L. Pasunoori 4704–4707

Total Synthesis and Stereochemistry of Unciamycin

Biyouyanagin A

K. C. Nicolaou,* D. Sarlah,
D. M. Shaw ————— 4708–4711

Total Synthesis and Revised Structure of
Biyouyanagin A

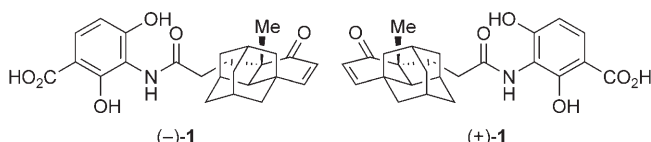


It all adds up: A 12-step total synthesis of biyouyanagin A, an inhibitor of HIV replication, has revealed its structure, rendered it available for biological investigations, and allows the synthesis of analogues. The convergent synthesis involves two cascade sequences and a remarkably selective [2+2] cycloaddition reaction to forge the cyclobutane ring of the target molecule in the ultimate step.

Platensimycin

K. C. Nicolaou,* T. Lister, R. M. Denton,
A. Montero, D. J. Edmonds — 4712–4714

Adamantaplatensimycin: A Bioactive
Analogue of Platensimycin



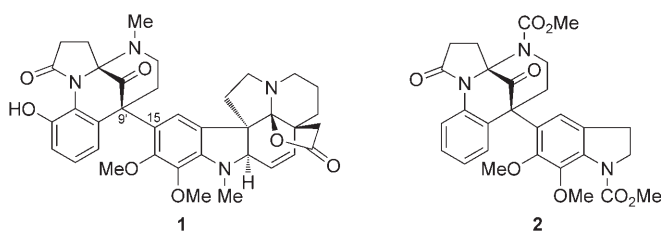
Adamantly pursuing the bugs: The syntheses of the two enantiomers of adamantaplatensimycin ((-)-1 and (+)-1), a novel analogue of the newly discovered antibiotic platensimycin, have been

achieved. Potent antibacterial action against methicillin-resistant *Staphylococcus aureus* and vancomycin-resistant *Enterococcus faecium* has been revealed for the (–) enantiomer.

Haplophytine

K. C. Nicolaou,* U. Majumder,
S. P. Roche, D. Y.-K. Chen* — 4715–4718

Construction of the “Left Domain” of
Haplophytine



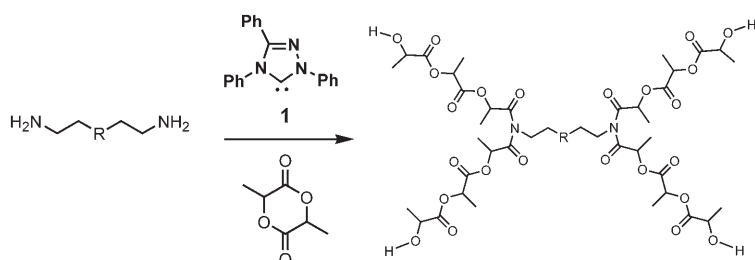
Left of the middle: Synthesis of the “left” structural domain (2) of haplophytine (1) features a stereoselective construction of its sterically congested carbon–carbon

bond (C9–C15) and an efficient cascade sequence involving a skeletal rearrangement of a presumed epoxide intermediate.

Block Copolymers

O. Coulembier, M. K. Kiesewetter,
A. Mason, P. Dubois, J. L. Hedrick,*
R. M. Waymouth* ————— 4719–4721

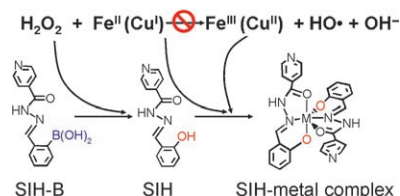
A Distinctive Organocatalytic Approach to
Complex Macromolecular Architectures



Branch manager: A one-step approach to branched copolymers is described. Primary amines are found to function as bifunctional initiators for ring-opening

polymerization in the presence of 1 to promote the polymerization of two chains, thereby enabling the facile introduction of branch points in block copolymers.

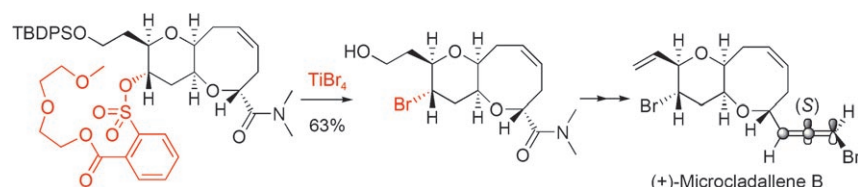
Fenton antidote: The prochelator 2-boronobenzaldehyde isonicotinoyl hydrazone (SIH-B) reacts with H_2O_2 to yield the active chelator salicylaldehyde isonicotinoyl hydrazone (SIH), which sequesters copper and iron ions (see scheme; $\text{M} = \text{Fe}, \text{Cu}$). This process attenuates both Fe- and Cu-promoted Fenton reactions under physiologically relevant conditions.



Bioinorganic Chemistry

Y. Wei, M. Guo* 4722–4725

Hydrogen Peroxide Triggered Prochelator Activation, Subsequent Metal Chelation, and Attenuation of the Fenton Reaction



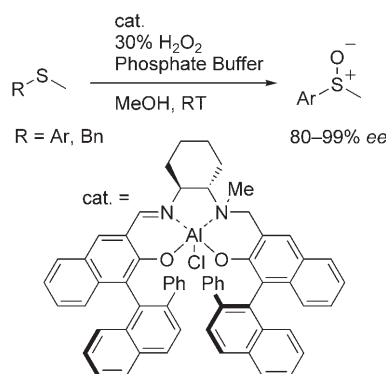
The formidable challenge of incorporating a bromine substituent stereoselectively at an sp^3 center was met through application of a nucleophile-assisting leaving group (see scheme). A further highlight of the highly stereo-, regio-, and chemoselective

synthesis of (+)-microcladallene B was a dianion alkylation to provide the required α, α' -anti substrate for ring-closing metathesis. TBDPS = *tert*-butyldiphenylsilyl.

Natural Products Synthesis

J. Park, B. Kim, H. Kim, S. Kim, D. Kim* 4726–4728

Substrate-Controlled Asymmetric Total Synthesis of (+)-Microcladallene B with a Bromination Strategy Based on a Nucleophile-Assisting Leaving Group



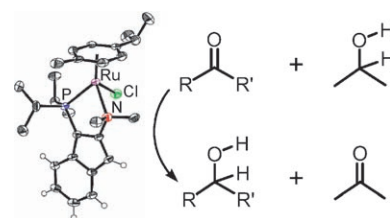
Not afraid to get wet: Aluminum(salalen) complexes were found to be water compatible and therefore suitable catalysts for asymmetric oxidation with aqueous hydrogen peroxide. A variety of sulfides underwent the title reaction in the presence of the aluminum(salalen) complex shown to give the desired sulfoxides with high to excellent enantioselectivity (see scheme; $\text{Bn} = \text{benzyl}$).

Asymmetric Catalysis

T. Yamaguchi, K. Matsumoto, B. Saito, T. Katsuki* 4729–4731

Asymmetric Oxidation Catalysis by a Chiral Al(salalen) Complex: Highly Enantioselective Oxidation of Sulfides with Aqueous Hydrogen Peroxide

Fast and furious: Even without the assistance of an N–H donor ligand, the Ru complex shown in the scheme is a remarkably active precatalyst for the transfer hydrogenation of ketones in basic $i\text{PrOH}$ ($\text{R}, \text{R}' = \text{alkyl or aryl}$), providing near-quantitative yields within minutes and exhibiting consistently high turnover frequencies (10^4 to 10^5 h^{-1}) for a diverse range of substrates.



Transfer Hydrogenation

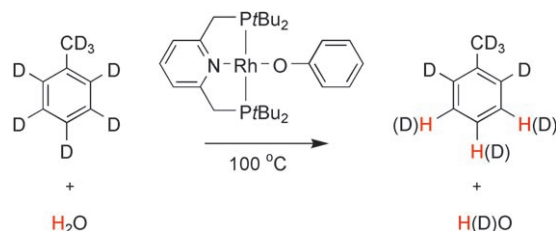
R. J. Lundgren, M. A. Rankin, R. McDonald, G. Schatte, M. Stradiotto* 4732–4735

A Formally Zwitterionic Ruthenium Catalyst Precursor for the Transfer Hydrogenation of Ketones that Does Not Feature an Ancillary Ligand N–H Functionality

C–H Bond Activation

S. M. Klok, D. M. Heinekey,*
K. I. Goldberg* — 4736–4738

C–H Bond Activation by Rhodium(I)
Hydroxide and Phenoxide Complexes



Rhodium(I) complexes of the form $[(\text{PNP})\text{Rh}(\text{OR})]$ ($\text{R} = \text{H}, \text{CH}_2\text{CF}_3, \text{C}_6\text{H}_5$; $\text{PNP} = 2,6\text{-bis}[(\text{di-}t\text{-butylphosphino})\text{-methyl}]\text{pyridine}$) have been prepared. Upon thermolysis in $[\text{D}_6]\text{benzene}$, the hydroxide and trifluoroethoxide complexes undergo benzene activation.

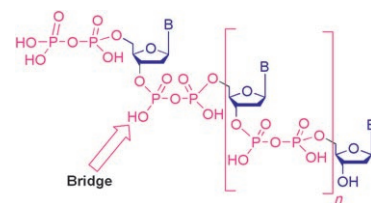
$[(\text{PNP})\text{Rh}(\text{OC}_6\text{H}_5)]$ is an active catalyst for the H/D exchange between D_2O and benzene and between H_2O and $[\text{D}_8]\text{toluene}$ (see scheme), for which exchange occurs selectively at the *meta* and *para* positions.

Modified Oligodeoxynucleotides

Y. Ahmadibeni, K. Parang* — 4739–4743

Synthesis and Evaluation of Modified
Oligodeoxynucleotides Containing
Diphosphodiester Internucleotide
Linkages

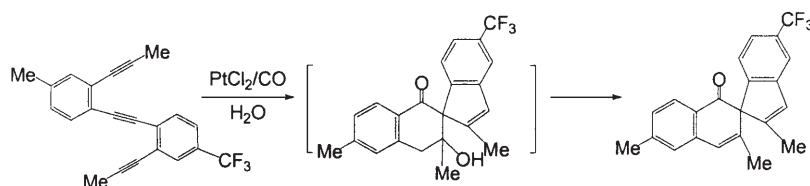
Build a bridge: Oligodeoxynucleotides (ODNs) containing diphosphodiester bridges were synthesized by a solid-phase synthesis strategy. Modified ODNs formed stable duplexes with complementary modified and unmodified nucleic acid sequences. The modified oligomers were resistant to degradation by DNase I and 3'-exonuclease I under conditions in which unmodified ODNs were degraded. $\text{B} = \text{T}, \text{A}, \text{G}, \text{or C}$.



Synthetic Methods

H.-K. Chang, S. Datta, A. Das, A. Odedra,
R.-S. Liu* — 4744–4747

PtCl_2 -Catalyzed Hydrative Cyclization of
Trialkyne Functionalities to Form Bicyclic
Spiro Ketones



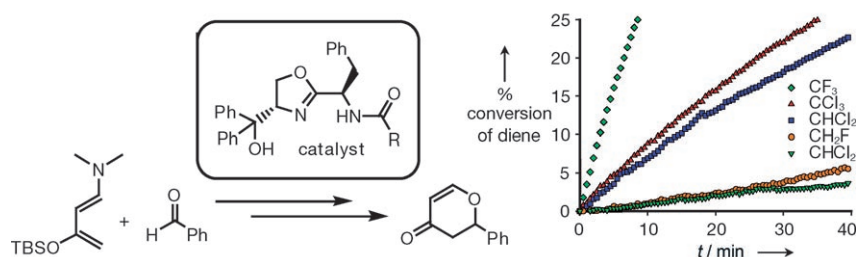
Triple rounds: A regioselective hydrative cyclization of triynes has been developed to give bicyclic β -hydroxy spiro ketones, which undergo subsequent dehydration to give the β,γ -unsaturated ketones (see

scheme). Model reactions suggest that this platinum catalysis includes two selective hydrations, an alkyne insertion, and an aldol condensation.

Asymmetric Catalysis

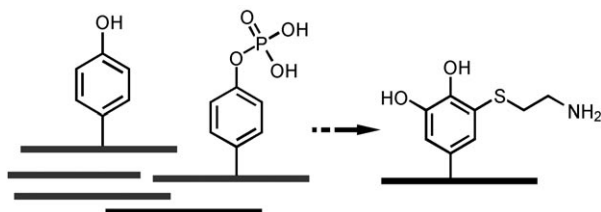
K. H. Jensen, M. S. Sigman* — 4748–4750

Systematically Probing the Effect of
Catalyst Acidity in a Hydrogen-Bond-
Catalyzed Enantioselective Reaction



Defining the relationship: The effect of catalyst acidity has been systematically probed by using a modular oxazoline catalyst in a hetero-Diels–Alder reaction catalyzed by hydrogen bonding. Linear

free energy relationships were observed between the catalyst acidity and both the reaction rate and enantioselectivity (see picture).



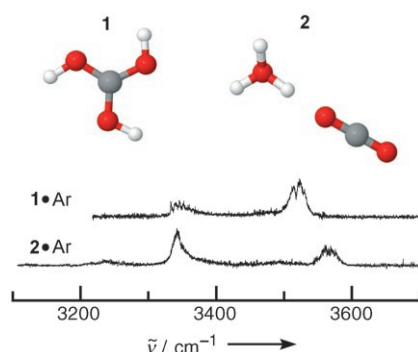
Change the Tyr: A tyrosinase-assisted chemoenzymatic method was used to modify and enrich phosphotyrosine-containing peptides from a peptide mixture. This approach could be used to study

protein tyrosine phosphorylation, and represents a promising alternative to immunoaffinity purification by using anti-phosphotyrosine antibodies.

Protein Phosphorylation

S. Li,* D. Zeng _____ 4751–4753

Chemoenzymatic Enrichment of Phosphotyrosine-Containing Peptides

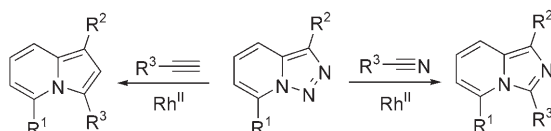


Complex detection: Gas-phase protonated carbonic acid, $\text{C}(\text{OH})_3^+$ (**1**), and its isomeric $\text{H}_3\text{O}^+\cdot\text{CO}_2$ complex (**2**) were spectroscopically identified for the first time by resonant IR photodissociation spectroscopy of their Ar-tagged adducts (see picture). This identification represents an important step toward understanding the precise role of protonated carbonic acid in CO_2 hydrolysis and related processes.

Carbenium Ions

H.-S. Andrei, S. A. Nizkorodov, O. Dopfer* _____ 4754–4756

IR Spectra of Protonated Carbonic Acid and Its Isomeric $\text{H}_3\text{O}^+\cdot\text{CO}_2$ Complex



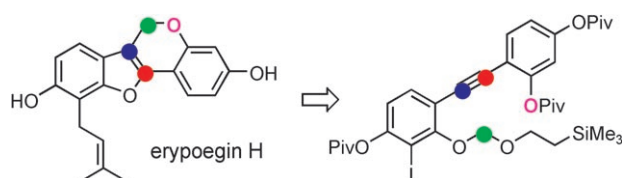
Changing the rings: A variety of N-fused pyrrolo- and imidazopyridines can be readily formed by a direct Rh-catalyzed transannulation of pyridotriazoles with alkynes and nitriles, respectively (see

scheme). Substituted pyridotriazoles can also serve as stable precursors for Rh carbenoids, the preparation of which does not require special precautions or slow-addition techniques.

Annulated Heterocycles

S. Chuprakov, F. W. Hwang, V. Gevorgyan* _____ 4757–4759

Rh-Catalyzed Transannulation of Pyridotriazoles with Alkynes and Nitriles



Fighting back: A concise route to the pterocarpene derivative erypoeegin H, a natural product endowed with considerable activity against a range of methicillin-resistant *Staphylococcus aureus* strains

and vancomycin-resistant enterococci, has been developed. The key step in the synthesis is a PtCl_2 -catalyzed carboalkoxylation reaction of an alkyne (see retrosynthesis; Piv = pivaloyl).

Natural Products

A. Fürstner,* E. K. Heilmann, P. W. Davies _____ 4760–4763

Total Synthesis of the Antibiotic Erypoeegin H and Cognates by a PtCl_2 -Catalyzed Cycloisomerization Reaction

Synthetic Methods

D. Fischer, H. Tomeba, N. K. Pahadi,
N. T. Patil, Y. Yamamoto* — 4764–4766

Synthesis of 1,3,4-Trisubstituted
Isoquinolines by Iodine-Mediated
Electrophilic Cyclization of 2-Alkynyl
Benzyl Azides

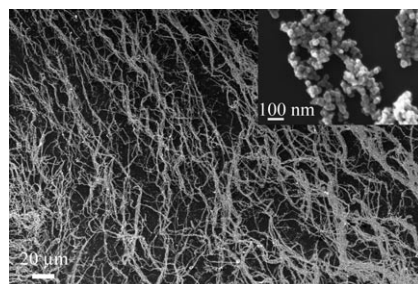


The I's have it: A series of 2-alkynyl benzyl azides have been smoothly converted into 1,3,4-trisubstituted isoquinolines in moderate to excellent yields by an iodonium-mediated synthesis (see scheme). Depending on the structure of the substrate, iodine, Barluenga reagent ($\text{Py}_2\text{IBF}_4/\text{HBF}_4$), or *N*-iodosuccinimide has been employed as the I^+ source.

Nanoparticle Aggregates

J. Sun, Y. Zhang, Z. Chen, J. Zhou,
N. Gu* — 4767–4770

Fibrous Aggregation of Magnetite
Nanoparticles Induced by a Time-Vari-
ed Magnetic Field

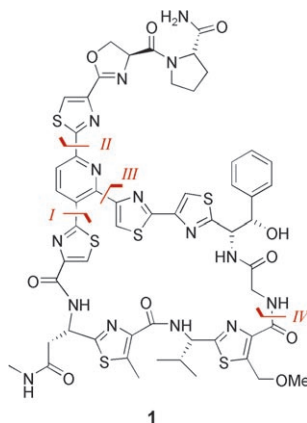


In the field: In the presence of a time-varied magnetic field, electrostatically stabilized magnetite nanoparticles aggregate into micro-sized fibrous suprastructures (see image). The process is irreproducible for sterically stabilized colloids. It is inferred that the phenomenon results from the co-effects of magnetic moment interaction and electrostatic interaction that are connected by the time-varied magnetic field.

Total Synthesis

H. M. Müller, O. Delgado,
T. Bach* — 4771–4774

Total Synthesis of the Thiazolyl Peptide
GE2270 A



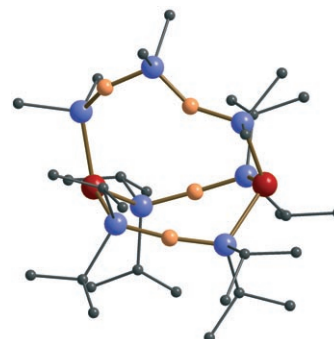
When one door closes, another opens: In the synthesis of the thiazolyl peptide GE2270 A (**1**), the bonds labeled I and II at the pyridine core were established by two consecutive cross-coupling reactions. Amide bond formation (IV) and subsequent intramolecular Stille reaction (III) were more effective than the originally conceived connection strategy (III before IV). GE2270 A (**1**) was prepared with an overall yield of 4.8% in 20 steps along the longest linear sequence.

Cage Compounds

C. von Hänisch,* O. Hampe, F. Weigend,
S. Stahl — 4775–4779

Stepwise Synthesis and Coordination
Compound of an Inorganic Cryptand

Modeled on organics: The inorganic cryptand $[\text{P}_2\{\text{O}(\text{Si}(\text{Pr})_2)_2\}_2\{\text{SiMe}_2(\text{OSiMe}_2)_2\}]$ (see figure; C black, O orange, P red, Si blue) can be synthesized by a stepwise lithiation/silylation process. A first coordination compound of this ligand was obtained from its reaction with $\text{Li}[\text{Al}(\text{OR}_F)_4]$.





On the path to chiral polysilanes, the synthesis and first structural characterization of the enantiomerically pure tetrasilane (*R*)-3 was achieved. A new synthetic

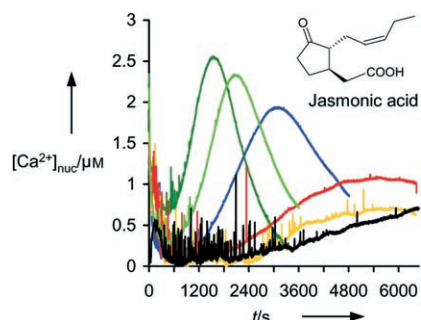
strategy was used, by which the cleavage of a silicon–phenyl bond in the substrate (*R*)-1 generated as intermediate the enantiomerically enriched lithiosilane 2.

Chiral Silanes

C. Strohmann,* C. Däschlein, M. Kellert, D. Auer — 4780–4782

A Highly Enantiomerically Enriched Lithiosilane by Selective Cleavage of a Silicon–Phenyl Bond with Lithium

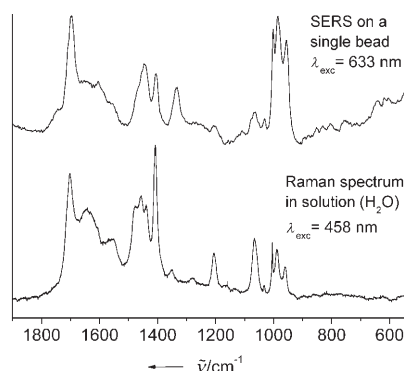
A three-class society: Jasmonates, a group of oxylipin phytohormones differentially induce changes in intracellular Ca^{2+} concentrations in plant cells (see diagram). Structure–activity analysis revealed that jasmonates fall into three distinct classes: 1) compounds inducing Ca^{2+} changes in both the cytosol and the nucleus 2) compounds inactive on either compartment, and 3) compounds acting selectively on the nucleus.



Signal Transduction

A. Walter, C. Mazars, M. Maitrejean, J. Hopke, R. Ranjeva, W. Boland, A. Mithöfer* — 4783–4785

Structural Requirements of Jasmonates and Synthetic Analogues as Inducers of Ca^{2+} Signals in the Nucleus and the Cytosol of Plant Cells

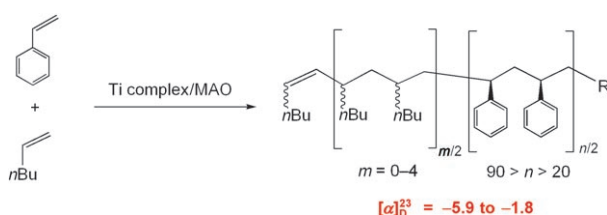


Sensitive and specific: By using surface-enhanced Raman scattering (SERS) microspectroscopy, solid-phase-bound compounds can be detected directly and marker-free in a few seconds on a single polystyrene bead. No significant contributions of the matrix are observed, as demonstrated by reference Raman spectra.

Analytical Methods

C. Schmuck,* P. Wich, B. Küstner, W. Kiefer, S. Schlucker* — 4786–4789

Direct and Label-Free Detection of Solid-Phase-Bound Compounds by Using Surface-Enhanced Raman Scattering Microspectroscopy



Tactful: Titanium catalyst precursors in both optically active, enantiomeric forms have been obtained diastereoselectively, and after activation with methylaluminoxane (MAO) they were used for the stereospecific oligomerization of styrene.

The isotactic polystyrenes with a degree of polymerization of up to 45 show measurable optical activity, thus corroborating that enantiomorphic site control is operating in these homogeneous catalysts.

Polymerization Catalysis

K. Beckerle, R. Manivannan, B. Lian, G.-J. M. Meppelder, G. Raabe, T. P. Spaniol, H. Ebeling, F. Pelascini, R. Mülhaupt, J. Okuda* — 4790–4793

Stereospecific Styrene Enchainment at a Titanium Site within a Helical Ligand Framework: Evidence for the Formation of Homochiral Polystyrene



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).

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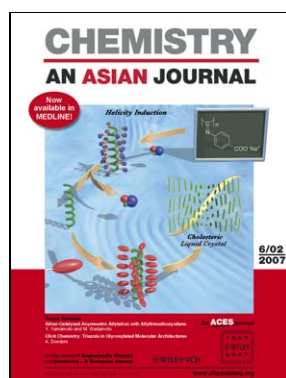
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