



**Cover**  
Charge is transported through DNA like billiard balls in a billiard game.

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# contents

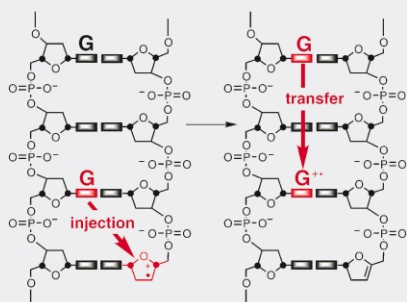
## FEATURE ARTICLE

667

### Recent developments of charge injection and charge transfer in DNA

Bernd Giese\* and Andreas Biland

A guanine radical cation generated by charge injection initiates long distance charge transfer through DNA.



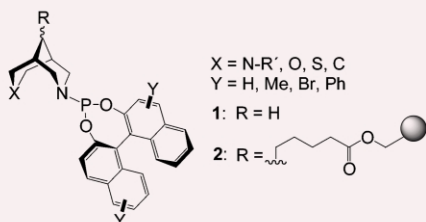
## COMMUNICATIONS

673

### Combinatorial development of chiral phosphoramidite-ligands for enantioselective conjugate addition reactions

Oliver Huttenloch, Eltepu Laxman and Herbert Waldmann\*

Chiral phosphoramidite ligands embodying bispidine frame work and a binaphthyl phosphoramidite for Cu-catalysed enantioselective conjugate addition reactions were developed employing principles of combinatorial and solid phase chemistry.

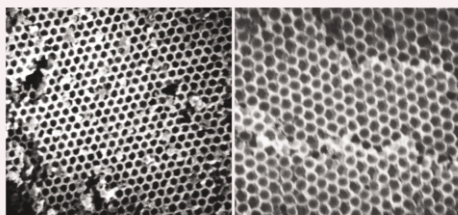


676

### Electrochemical polymerization of aniline inside ordered macroporous carbon

Zhibin Lei, Hanchang Zhang, Shaohong Ma, Yanxiong Ke, Jianmin Li\* and Fanqing Li

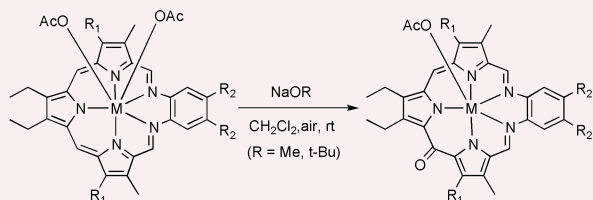
3D ordered macroporous polyaniline/carbon composite materials have been fabricated by electrochemical deposition of aniline on the inner surface of macroporous carbon.



678

**Reaction chemistry of metallotexaphyrins: the synthesis and characterization of the first meso-oxotexaphlorin**

Zhong Wang, Lei Fu and Tarak D. Mody\*



Ring-oxygenation of metallotexaphyrins, promoted by strong bases, produces oxotexaphlorin, the first example of a meso-oxo functionalized texaphyrin derivative.

680

**Conductimetric immunosensor based on poly(3,4-ethylenedioxythiophene)**

Mandakini Kanungo, Divesh. N. Srivastava, Anil Kumar and A. Q. Contractor\*

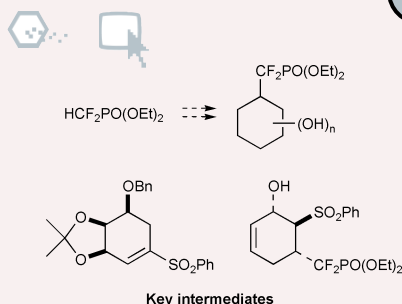


A conductimetric reagentless immunosensor using the biospecific binding pair of goat antirabbit IgG and rabbit IgG has been designed and fabricated using poly(3,4-ethylenedioxythiophene) as the immobilization matrix-cum-transducer.

682

**Towards stable analogues of inositol phosphates: stereoselective syntheses of ( $\alpha,\alpha$ -difluoromethyl)phosphonic acid (DFMPA)-containing cyclohexanes**

Afshan H. Butt, B. M. Kariuki, Jonathan M. Percy\* and Neil S. Spencer

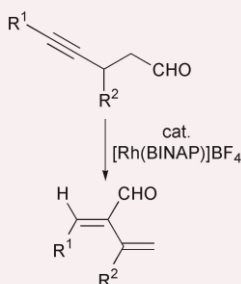


Diels–Alder and conjugate addition reactions were used to prepare precursors to a range of fully functionalised and deoxy inositol phosphate analogues.

684

**A unique rhodium-catalyzed rearrangement process: isomerization of an alkyne to a 1,3-diene with concomitant migration of a formyl group. An expeditious route to dienals from readily available 4-alkynals**

Ken Tanaka and Gregory C. Fu\*

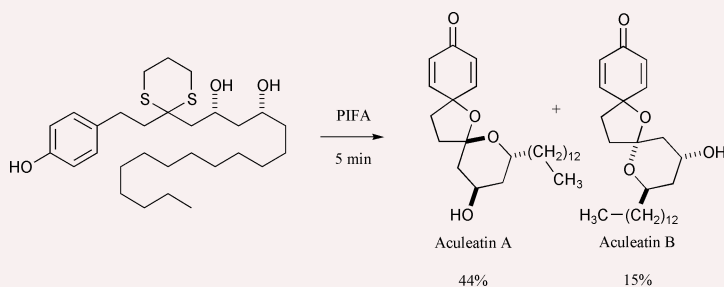


In CH<sub>2</sub>Cl<sub>2</sub>, [Rh(BINAP)]BF<sub>4</sub> catalyzes the isomerization of 4-alkynals to dienals with excellent regio- and stereoselectivity; this new process compares favorably with previously reported methods for the synthesis of this class of compounds.

686

**Synthesis of ( $\pm$ )-aculeatins A and B**

Yung-Sing Wong

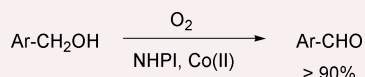


One-step synthesis of ( $\pm$ ) aculeatins A and B using phenyliodonium(III) bis(trifluoroacetate).

688

**A new, highly selective synthesis of aromatic aldehydes by aerobic free-radical oxidation of benzylic alcohols, catalysed by *n*-hydroxyphthalimide under mild conditions. Polar and enthalpic effects**

Francesco Minisci,\* Carlo Punta, Francesco Recupero, Francesca Fontana and Gian Franco Pedulli

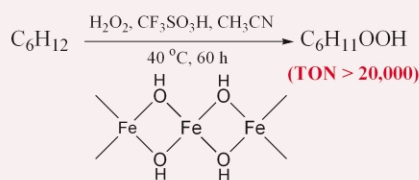


A new selective synthesis of aromatic aldehydes is described, based on catalytic oxidation of benzyl alcohols with molecular oxygen at rt and atmospheric pressure.

690

**Creation of a chain-like cationic iron species in montmorillonite as a highly active heterogeneous catalyst for alkane oxygenations using hydrogen peroxide**

Kohki Ebitani, Masahito Ide, Takato Mitsudome, Tomoo Mizugaki and Kiyotomi Kaneda\*



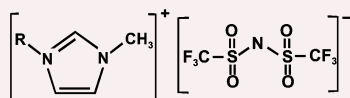
Chain-like structure of iron species in Fe<sup>3+</sup>-mont

A chain-like Fe<sup>3+</sup> species containing an Fe–O–Fe unit has been prepared within the interlayer space of a montmorillonite, which showed a very high catalytic activity (turnover frequency 386 h<sup>-1</sup> and turnover number 23 200) for the oxidation of cyclohexane with H<sub>2</sub>O<sub>2</sub>, affording major product.

692

**Continuous green biocatalytic processes using ionic liquids and supercritical carbon dioxide**

Pedro Lozano, Teresa de Diego, Daniel Carrié, Michel Vaultier and José L. Iborra\*



A continuous green biocatalysis process by using a lipase immobilized in ionic liquid to synthesize esters in supercritical carbon dioxide at extreme conditions (100 °C, 150 bar) is described.

694

**A new supramolecular isomer of [Zn(nicotinate)<sub>2</sub>]<sub>n</sub>: a novel 4<sup>2</sup>.8<sup>4</sup> network that is the result of self-assembly of 4-connected nodes**

Beth Rather, Brian Moulton, Rosa D. Bailey Walsh and Michael J. Zaworotko\*

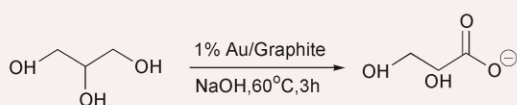


Self-assembly of Zn(NO<sub>3</sub>)<sub>2</sub> with *m*-pyridinecarboxylate (nicotinate) under mild conditions affords several products including a novel three-dimensional network [Zn(nicotinate)<sub>2</sub>]<sub>n</sub> that has connectivity defined by the circuit symbol 4<sup>2</sup>.8<sup>4</sup>.

696

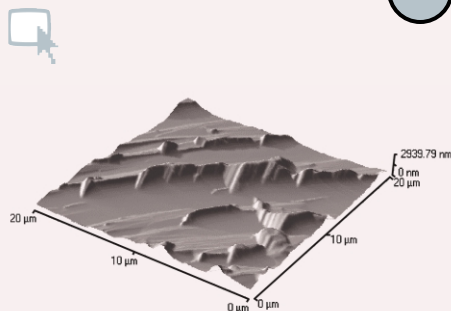
**Selective oxidation of glycerol to glyceric acid using a gold catalyst in aqueous sodium hydroxide**

Silvio Carretin, Paul McMorn, Peter Johnston, Ken Griffin and Graham J. Hutchings\*



Glycerol is oxidised to glyceric acid with 100% selectivity using either 1% Au/charcoal or 1% Au/graphite catalyst under mild reaction conditions (60 °C, 3 h, water as solvent).

698

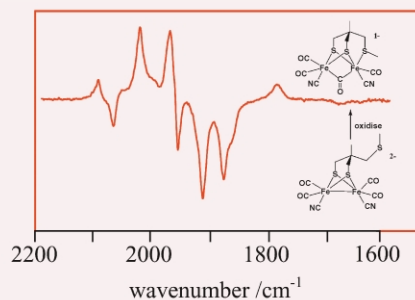


### Kinetic isotope effects on the dissolution kinetics of solid salicylic acid in aqueous solution: evidence for solubilisation *via* a proton dissociation–recombination mechanism

Shelley J. Wilkins, Barry A. Coles and Richard G. Compton\*

Quantitative Atomic Force Microscopy measurements made on the dissolving surface of solid salicylic acid in H<sub>2</sub>O and D<sub>2</sub>O reveal a kinetic isotope effect ( $k_{\text{H}}/k_{\text{D}} = 2.3$ ) on the dissolution rate consistent with a transition state in which the proton is dissociated from the dissolving molecule.

700

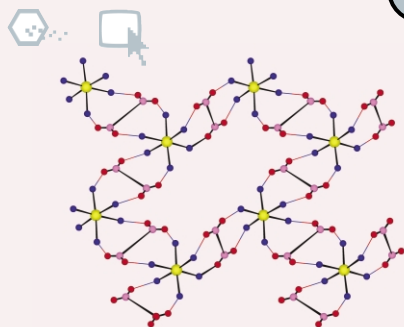


### Transient FTIR spectroelectrochemical and stopped-flow detection of a mixed valence {Fe(I)–Fe(II)} bridging carbonyl intermediate with structural elements and spectroscopic characteristics of the di-iron sub-site of all-iron hydrogenase

Mathieu Razavet, Stacey J. Borg, Simon J. George, Stephen P. Best,\* Shirley A. Fairhurst and Christopher J. Pickett\*

Iron(I) in biology?: one-electron oxidation of an {Fe(I)–Fe(I)} carbonyl cyanide precursor bearing a proximal thioether group leads to an {Fe(I)–Fe(II)} bridging carbonyl transient.

702

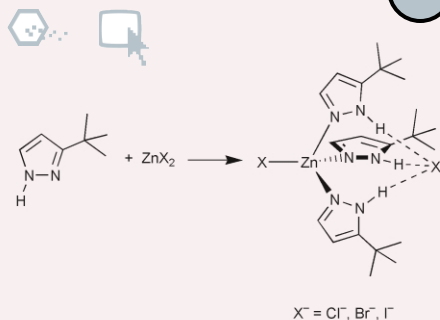


### Second sphere supramolecular chirality: racemic hybrid H-bonded 2-D molecular networks

Sylvie Ferlay, Olivier Félix, Mir Wais Hosseini,\* Jean-Marc Planeix and Nathalie Kyritsakas

A combination of a dicationic tecton offering a dihapto mode of H-bonding and M(CN)<sub>6</sub><sup>3-</sup> anions leads to a 2-D H-bonded hybrid network presenting supramolecular chirality of the Δ' and Λ' types.

704



### 3{5-*tert*-Butylpyrazole} is a ditopic receptor for zinc(II) halides

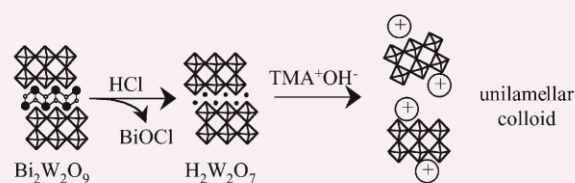
Xiaoming Liu, Colin A. Kilner and Malcolm A. Halcrow\*

The complexes [ZnX(Hpz<sup>tert</sup>)<sub>3</sub>]X (X<sup>-</sup> = Cl<sup>-</sup>, Br<sup>-</sup>, I<sup>-</sup>) contain a non-coordinated X<sup>-</sup> anion hydrogen-bonded within a pocket formed by the Hpz<sup>tert</sup> *tert*-butyl groups.

706

### Exfoliation of layered rutile and perovskite tungstates

Raymond E. Schaak and Thomas E. Mallouk\*

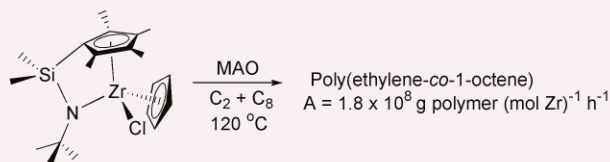


The layered trirutile phases HMWO<sub>6</sub> (M = Nb, Ta) and the layered perovskite H<sub>2</sub>W<sub>2</sub>O<sub>7</sub> (synthesized by acid leaching of Bi<sub>2</sub>W<sub>2</sub>O<sub>9</sub>) were exfoliated into nanoscale colloids by reaction with quaternary ammonium hydroxides.

708

**Monoalkyl, chiral-at-metal ‘constrained geometry’ complexes as efficient  $\alpha$ -olefin and methyl methacrylate polymerisation catalysts**

Jizhu Jin, David R. Wilson and Eugene Y.-X. Chen\*

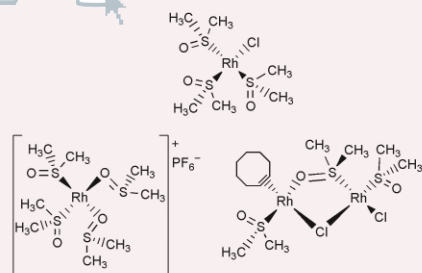


Upon activation with aluminium activators, monoalkyl and monochloro constrained geometry group 4 complexes are efficient catalysts for olefin polymerisation and for polymerisation of methyl methacrylate.

710

**The first fully characterized neutral and cationic rhodium(I)-complexes containing DMSO as the only dative ligand; *S*-, *O*- and bridging *S,O*-bidentate binding modes**

Reto Dorta, Haim Rozenberg and David Milstein\*

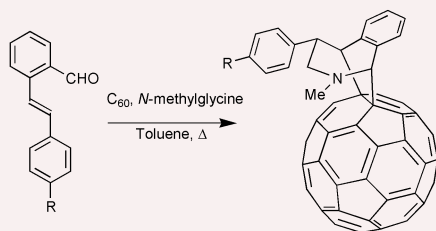


Isolation and characterisation of novel neutral and cationic Rh(I) complexes having only DMSO molecules as dative ligands give complexes showing *S*-, *O*- and bridging *S,O*-bidentate binding modes of DMSO.

712

**An unexpected Diels–Alder reaction on the fullerene core rather than an expected 1,3-dipolar cycloaddition**

Jean-François Eckert, Cyril Bourgoigne and Jean-François Nierengarten\*

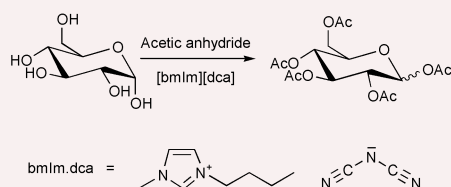


Fullerene derivatives resulting from an unexpected Diels–Alder cycloaddition have been obtained by reaction of *trans*-2-stilbenecarboxaldehyde derivatives with *N*-methylglycine and C<sub>60</sub>.

714

**Rapid, clean, and mild *O*-acetylation of alcohols and carbohydrates in an ionic liquid**

Stewart A. Forsyth, Douglas R. MacFarlane, Robin J. Thomson and Mark von Itzstein

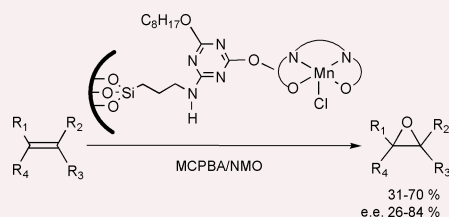


Archetypal *O*-acetylation reactions of alcohols and carbohydrates proceed rapidly in high yield under mild conditions in a dicyanamide based ionic liquid, that is not only an effective solvent but also an active base catalyst.

716

**Heterogeneous enantioselective epoxidation of olefins catalysed by unsymmetrical (salen)Mn(III) complexes supported on amorphous or MCM-41 silica through a new triazine-based linker**

Franca Bigi,\* Leni Moroni, Raimondo Maggi and Giovanni Sartori

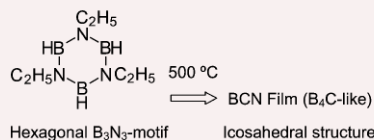


A new spacer, containing a suitably functionalizable triazine ring, bounding Mn(III)(salen) catalyst to a solid support through a single linker represents a promising and versatile tool to anchor metal complexes to silica.

718

### Synthesis of a new boron carbonitride with a B<sub>4</sub>C-like structure from the thermolysis of *N*-alkylated borazines

Rik Brydson, Howard Daniels, Mark A. Fox, Robert Greatrex\* and Christopher Workman

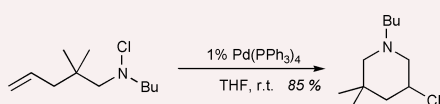


Icosahedral (B<sub>4</sub>C-like) boron carbonitride phases have been obtained for the first time from planar borazine precursors; thermolysis of *N*-alkylated borazines at 500 °C produces homogeneous films with compositions dependent upon the borazine substituent.

720

### A new catalytic hetero-Heck type reaction

Juho Helaja and Richard Göttlich\*

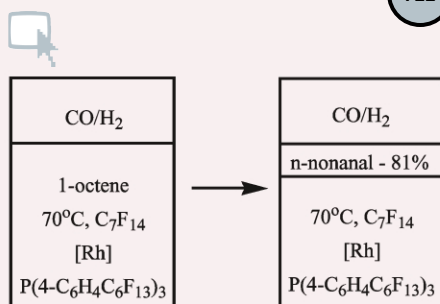


Unsaturated *N*-chloroamines have been found to cyclise under palladium-catalysis in good yield, the proposed mechanism includes an oxidative addition of the chloroamine to Pd(0), thus opening a new entry to the amides of the late transition metals.

722

### Hydroformylation in fluoruous solvents

Douglas F. Foster, Dave J. Adams, David Gudmunsen, Alison M. Stuart, Eric G. Hope and David J. Hamilton

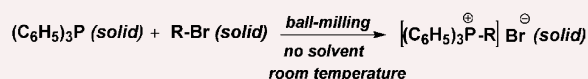


Triaryl-phosphines and -phosphites bearing fluoruous ponytails give high rates, good linear selectivity and good retention of catalyst in the fluoruous phase during hydroformylation of alkenes in fluoruous solvents.

724

### Solvent-free mechanochemical synthesis of phosphonium salts

Viktor P. Balema,\* Jerzy W. Wiench, Marek Pruski and Vitalij K. Pecharsky\*

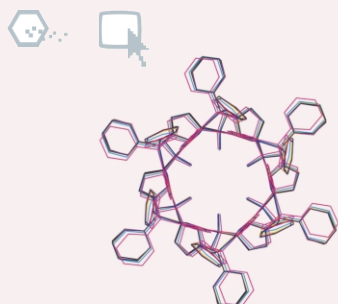


Phosphonium salts were prepared in high yields by ball-milling of triphenylphosphine with solid organic bromides without a solvent. Their formation during mechanical treatment was confirmed by solid-state NMR and X-ray powder diffraction.

726

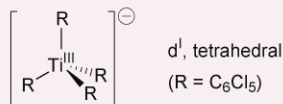
### Self-assembled calix[6]pyrrole capsules: solid-state encapsulation of different guests in preorganized calix[6]pyrrole capsules

Boaz Turner, Alexander Shterenberg, Moshe Kapon, Mark Botoshansky, Kinga Suwinska and Yoav Eichen\*



*meso*-hexamethyl-*meso*-hexaphenyl calix[6]pyrrole assembles into well-defined dimeric capsules in the crystalline state; the preorganized capsule serves as an efficient host for different organic guests as well as for solvent molecules.

728

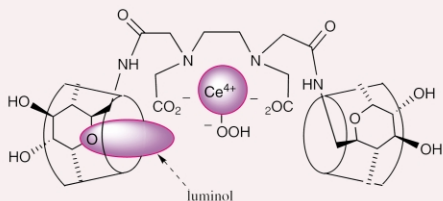


### The first structurally characterised homoleptic $\sigma$ -organotitanium(III) compound

Pablo J. Alonso, Juan Forniés,\* M. Angeles García-Monforte, Antonio Martín and Babil Menjón

Unambiguous structural information for a homoleptic  $\sigma$ -organotitanium(III) derivative is reported for the first time. In a formal sense, the paramagnetic anion  $[\text{Ti}^{\text{III}}(\text{C}_6\text{Cl}_5)_4]^-$  is a highly unsaturated 9-electron organotransition metal species.

730



### The first successful investigation into a cyclodextrin-based enzyme model as an efficient catalyst for luminol chemiluminescent reaction

De-Qi Yuan,\* Jianzhong Lu, Masato Atsumi, Ayako Izuka, Masaaki Kai and Kahee Fujita

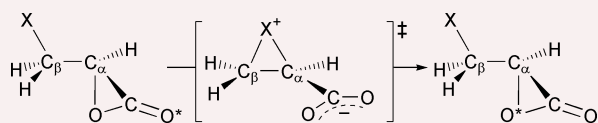
Pre-organization of luminescent fuels and oxidants by enzyme models resulted in large enhancement of chemiluminescence.

732



### Computational study of electrophilic addition to acrylate anion: cyclic halonium is the transition structure for degenerate rearrangement of $\alpha$ -lactones

Giuseppe D. Ruggiero and Ian H. Williams\*

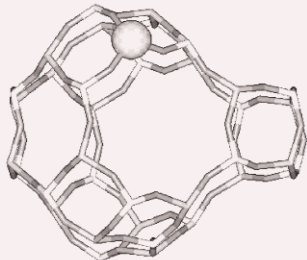


PCM/B3LYP/6-31+G\* calculations show cyclic halonium carboxylate, from addition of  $\text{Cl}^+$  or  $\text{Br}^+$  to  $\text{CH}_2=\text{CHCO}_2^-$ , is not an intermediate but a transition structure for interconversion of equivalent halomethyl oxiranones.

734



High-spin tetrahedral Mn(III)

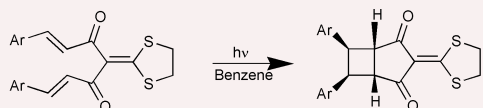


### Electronic state and three-dimensional structure of Mn(III) active sites in manganese-containing aluminophosphate molecular sieve catalysts for the oxyfunctionalisation of alkanes

Furio Corà,\* Gopinathan Sankar,\* C. Richard A. Catlow and John Meurig Thomas

Combined *in situ* X-ray absorption spectroscopy measurements and quantum mechanical calculations yield a quantitative three-dimensional structure of the tetrahedrally coordinated Mn(III) active sites in MnAlPO catalysts for alkane oxyfunctionalisation with molecular oxygen.

736



Ar =  $\text{C}_6\text{H}_5$ , 4-Cl  $\text{C}_6\text{H}_4$ , 4-MeO  $\text{C}_6\text{H}_4$ , 3,4-MeO  $\text{C}_6\text{H}_3$ , 3-MeO  $\text{C}_6\text{H}_4$ , 2-MeO  $\text{C}_6\text{H}_4$ , thienyl

### Highly facile and stereoselective intramolecular [2+2] photocycloadditions of bis(alkenoyl)ketenedithioacetals

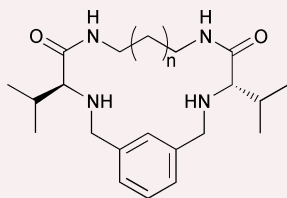
Bubbly K. Joseph, Babu Verghese, C. Sudarsanakumar,\* S. Deepa, Dhanya Viswam, Prakash Chandran and C. V. Asokan\*

The conformational change induced by the presence of the ketenedithioacetal moiety promotes an efficient intramolecular [2 + 2] photocycloaddition in bis(alkenoyl)ketenedithioacetals.

738

**Minimalist peptidomimetic cyclophanes as strong organogelators**

Jorge Becerril, M. Isabel Burguete, Beatriu Escuder,\* Santiago V. Luis,\* Juan F. Miravet and Manel Querol



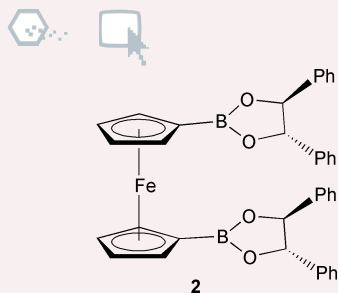
L-Valine containing cyclophanes have been shown to gelate organic solvents leading to soft materials with a clear expression of their chirality at the supramolecular level.

740

**Multidentate Lewis acids: synthesis, structure and mode of action of a redox-based fluoride ion sensor**

S. Aldridge, C. Bresner, I. A. Fallis, S. J. Coles and M. B. Hursthouse

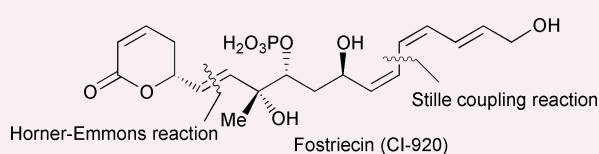
The mode of action of the bidentate bis(boronate) Lewis acid **2** as a fluoride ion sensor is shown to involve selective anion binding together with an electrochemical response.



742

**Total synthesis of fostriecin (CI-920) via a convergent route**

Kazuyuki Miyashita, Masahiro Ikejiri, Hitomi Kawasaki, Satoko Maemura and Takeshi Imanishi\*

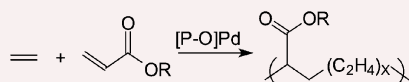


Fostriecin, a potent and promising antitumor antibiotic, was stereoselectively synthesized *via* a convergent route involving a three-segment coupling procedure.

744

**Palladium catalysed copolymerisation of ethene with alkylacrylates: polar comonomer built into the linear polymer chain**

Eite Drent, Rudmer van Dijk, Roel van Ginkel, Bart van Oort and Robert. I. Pugh\*

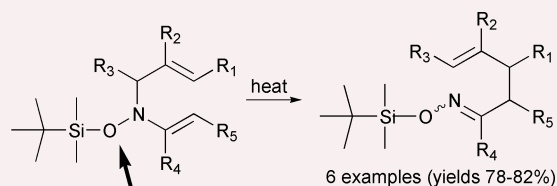


The first example of random alkylacrylate incorporation into linear polyethylene by neutral palladium catalysed insertion copolymerisation.

746

**Studies in 3-oxy-assisted 3-aza Cope rearrangements**

Mário J. S. Gomes, Lalit Sharma, Sundaresan Prabhakar,\* Ana M. Lobo\* and Paulo M. C. Glória (in part)



The first examples of 3-silyloxy-assisted 3-aza Cope reactions are reported.

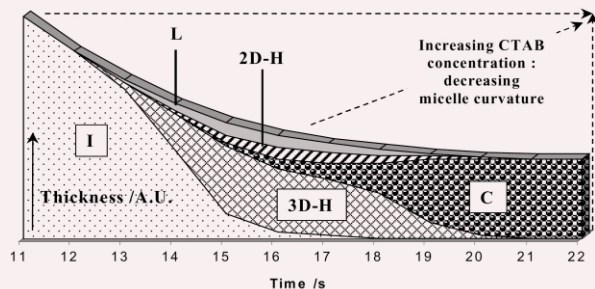


748

## Phase transformation during cubic mesostructured silica film formation

David Grosso,\* Florence Babonneau, Galo J. de A. A. Soler-Illia, Pierre-Antoine Albouy and Heinz Amenitsch

The structural evolution taking place during CTAB/TEOS based solvent evaporation-induced thin film formation is followed by *in-situ* time-resolved SAXS; this shows that the final  $Pm3n$  cubic structure is formed *via* the formation of lamellar and hexagonal intermediate structures within the water rich evaporation regime.

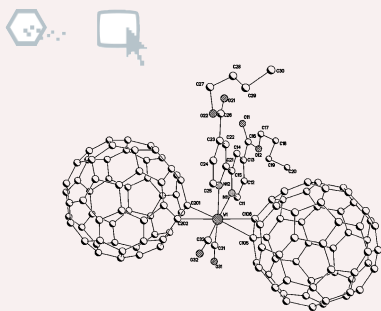


750

## Syntheses and X-ray crystal structures of dumbbell-shaped bis-fullerene tungsten and molybdenum complexes

Xianglin Jin, Xiangjin Xie and Kaluo Tang\*

The first neutral bis-fullerene complexes with tungsten(0) and molybdenum(0)  $[M(\eta^2-C_{60})_2(CO)_2(dbcipy)]$  [ $M = W$  and  $Mo$ ,  $dbcipy = 4,4'$ -di(butyl carboxyl)-2,2'-bipyridine] have been synthesized in solution.

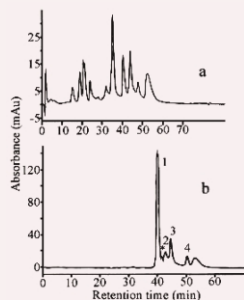


752

## Biomolecule separation using large pore mesoporous SBA-15 as a substrate in high performance liquid chromatography

Jianwei Zhao, Feng Gao, Yunlin Fu, Wan Jin, Pengyuan Yang and Dongyuan Zhao\*

Functionalized large-pore mesoporous SBA-15 is utilized for first time as a good substrate in high performance liquid chromatography to separate biomolecules including peptides (a, Mb digests) and proteins (b, lysozyme, BSA, Mb and ovalbumin).

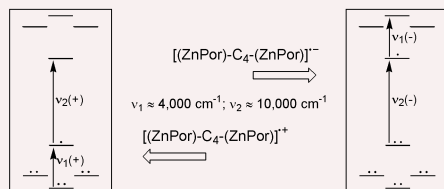


754

## Remarkable homology in the electronic spectra of the mixed-valence cation and anion radicals of a conjugated bis(porphyrinyl)butadiyne

Dennis P. Arnold,\* Regan D. Hartnell, Graham A. Heath, Leonora Newby and Richard D. Webster

The electronic spectra of the  $\pi$ -radical cation and anion of a conjugated bis(porphyrinyl)butadiyne show almost identical intense near- to mid-IR bands revealing transitions that map the inter-porphyrin interaction energies in both bonding and anti-bonding manifolds.

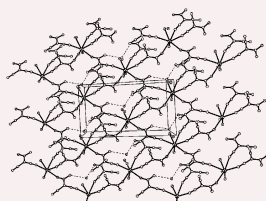
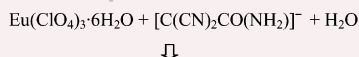


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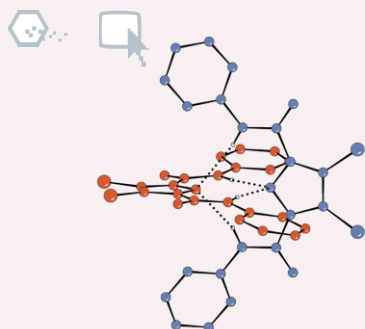
## Polynitrile-bridged two-dimensional crystal: Eu(III) complex with strong fluorescence emission and NLO property

Jing-min Shi,\* Wen Xu, Qing-yun Liu, Feng-ling Liu, Zhen-li Huang, Hong Lei, Wen-tao Yu and Qi Fang

With a new polynitrile compound as ligand the first polynitrile-bridged lanthanide coordination polymer has been synthesized and the novel complex exhibits strong fluorescence emission and SHG properties.



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### Solution and solid-state studies of 3,4-dichloro-2,5-diamidopyrroles: formation of an unusual anionic narcissistic dimer

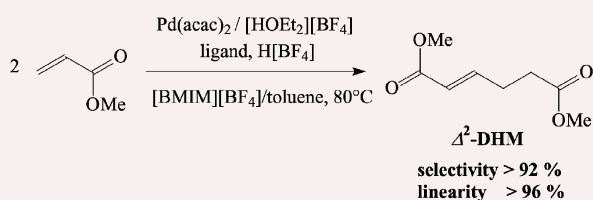
Salvatore Camiolo, Philip A. Gale,\* Michael B. Hursthouse, Mark E. Light and Andy J. Shi

New 2,5-diamidopyrrole cleft molecules carrying electron withdrawing substituents have been shown to form anionic dimers in solution and in the solid state through  $\text{NH}\cdots\text{N}^-$  hydrogen bonding interactions.

760

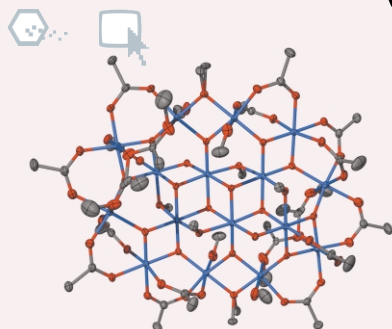
### Biphasic dimerisation of methylacrylate—immobilisation and stabilisation of cationic Pd-catalysts in ionic liquids by an ammoniumphosphine ligand

Jörg Zimmermann, P. Wasserscheid,\* Igor Tkatchenko and Stefanie Stutzmann



The first continuous, biphasic, Pd-catalysed dimerisation of methylacrylate has been realised by using a tetrafluoroborate ionic liquid as catalyst medium and an ammoniumphosphine ligand to immobilise and stabilise the Pd-catalyst.

762



### Synthesis, structure and magnetism of a new manganese carboxylate cluster: $[\text{Mn}_{16}\text{O}_{16}(\text{OMe})_6(\text{OAc})_{16}(\text{MeOH})_3(\text{H}_2\text{O})_3]\cdot 6\text{H}_2\text{O}$

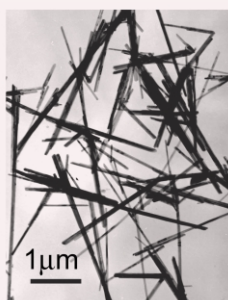
David J. Price, Stuart R. Batten, Boujemaa Moubaraki and Keith S. Murray\*

A new manganese(III/IV) carboxylate cluster, 'Mn<sub>16</sub>-acetate', has been synthesized and structurally characterized. It has been shown to display net antiferromagnetic coupling with preliminary evidence for single molecule magnetic behaviour.

764

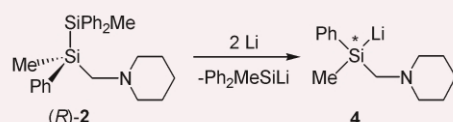
### Rational synthesis of $\alpha\text{-MnO}_2$ single-crystal nanorods

Xun Wang and Yadong Li\*



$\alpha\text{-MnO}_2$  single-crystal nanorods with diameters 20–80 nm and lengths up to 6  $\mu\text{m}$  have been prepared through a low-temperature liquid-phase comproportionation method, which involves no catalysts or templates and may be adjusted to prepare  $\alpha\text{-MnO}_2$  single-crystal nanorods in large scale.

766

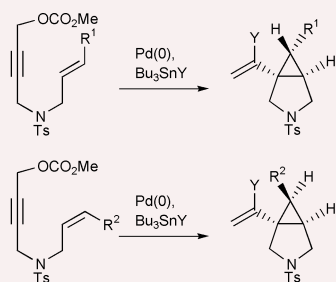


### Synthesis of a highly enantiomerically enriched silyllithium compound

Carsten Strohmann,\* Jan Hörnig and Dominik Auer

The highly enantiomerically enriched silyllithium compound lithiomethylphenyl(1-piperidinylmethyl)silane (**4**) reacts stereospecifically with chlorosilanes, but over a period of several hours slow racemization in solution at room temperature occurs, which can be suppressed by a transmetalation reaction with  $\text{MgBr}_2(\text{thf})_4$ .

768

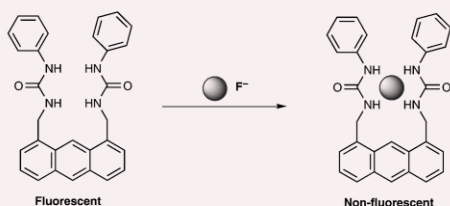


### Diastereoselective cascade synthesis of azabicyclo[3.1.0]hexanes from acyclic precursors

Jutta Böhmer, Ronald Grigg\* and John D. Marchbank

The diastereoselective synthesis of azabicyclo[3.1.0]hexanes bearing different substituents on all positions of the cyclopropane ring has been achieved in moderate to good yields.

770

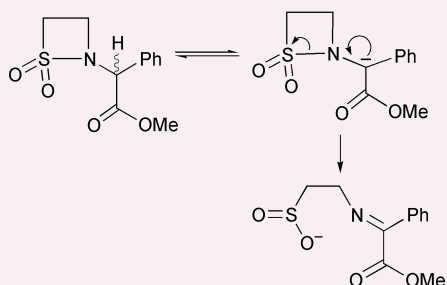


### A new fluorescent PET chemosensor for fluoride ions

Sook Kyung Kim and Juyoung Yoon\*

A new anthracene derivative bearing two phenylurea group at the 1,8-position of anthracene shows a selective fluorescence quenching effect with fluoride ion *via* a PET mechanism.

772

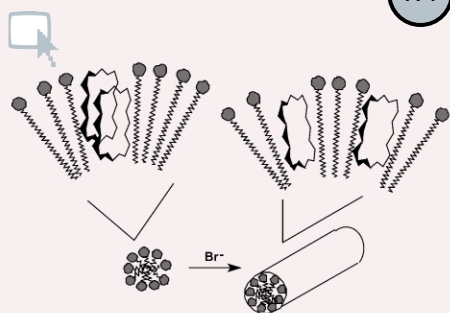


### Hydrolysis of a sulfonamide by a novel elimination mechanism generated by carbanion formation in the leaving group

J. Matthew Wood, Paul S. Hinchliffe, Andy M. Davis, Rupert P. Austin and Michael I. Page

A novel elimination mechanism for the hydrolysis of a sulfonamide in which a carbanion generated in the *leaving group* causes an unusual directional flow of electrons *towards* the sulfonyl centre.

774

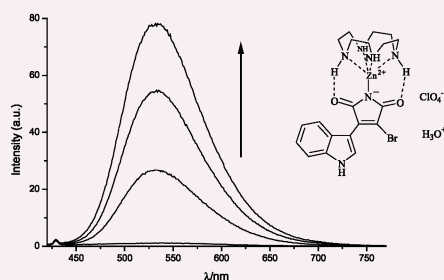


### Effect of surfactant phase transition on the inclusion behaviour of an amphiphilised porphyrin derivative

Donato Monti,\* Mariano Venanzi,\* Veronica Cantonetti, Stefano Borocci and Giovanna Mancini\*

A colour change!?! This phenomenon, due to the de-aggregation process of a porphyrin derivative included in a cationic micelle solution, is caused by a sphere-to-rod transition of the biomembrane model.

776

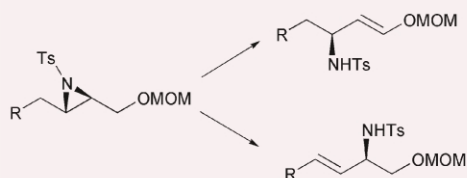


### Strong fluorescence enhancement of 2-bromo-3-(1H-indol-3-yl)maleimide upon coordination to a Lewis-acidic metal complex

Başak Kükrer Kaletaş, René M. Williams, Burkhard König and Luisa De Cola\*

Changes in the photophysical properties upon chemical recognition and in particular fluorescence enhancement (80 ×) of a maleimide derivative upon coordination with a Lewis-acidic metal complex is described.

778

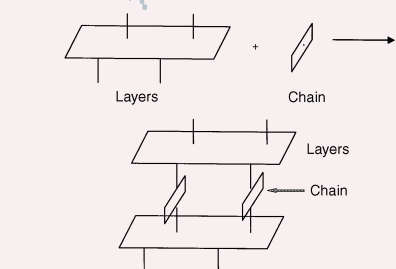


### Base promoted isomerization of aziridinyl ethers: a new access to $\alpha$ - and $\beta$ -amino acids

Alessandro Mordini,\* Laura Sbaragli, Michela Valacchi, Francesco Russo and Gianna Reginato

Aziridinyl ethers are selectively and easily converted to either amino vinyl ethers or alkoxy allylamines by treatment with mixed metal bases (superbases).

780

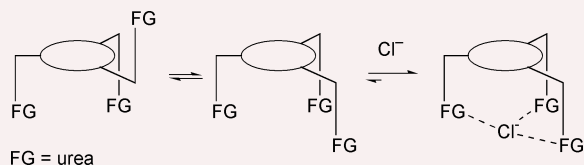


### Synthesis of a layered zinc phosphate, $[\text{NH}_3(\text{CH}_2)_2\text{NH}_2(\text{CH}_2)_3\text{NH}_3][\text{Zn}_2(\text{PO}_4)(\text{HPO}_4)_2]\cdot\text{H}_2\text{O}$ , and its transformation to a extra-large pore three-dimensional zinc phosphate, $[\text{NH}_3(\text{CH}_2)_2\text{NH}_2(\text{CH}_2)_3\text{NH}_3][\text{Zn}_3(\text{PO}_4)(\text{HPO}_4)_3]$

Srinivasan Natarajan

A layered zinc phosphate with hanging  $\text{HPO}_4$  units has been prepared and shown to transform into a three-dimensional zinc phosphate possessing 16-membered bifurcated channels a schematic of which is shown left.

782



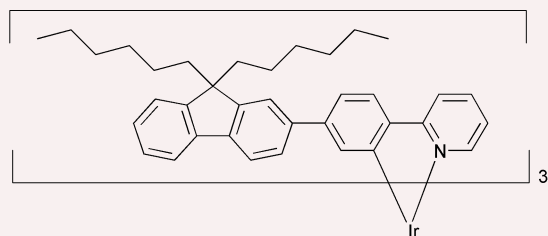
FG = urea

### Energies and selectivities for anion binding as a function of host conformational preorganisation

Reinhard W. Hoffmann,\* Frank Hettche and Klaus Harms

Different guest ( $\text{Cl}^-/\text{NO}_3^-$ ) selectivities result from different levels of conformational preorganisation in the side arms of the tripodal hosts.

784

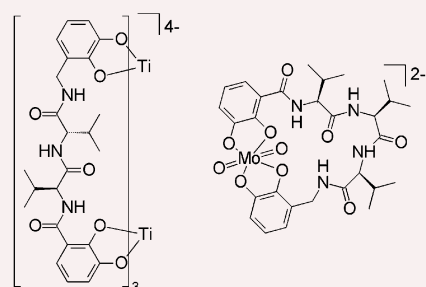


### Amorphous iridium complexes for electrophosphorescent light emitting devices

Jacek C. Ostrowski, Matthew R. Robinson, Alan J. Heeger and Guillermo C. Bazan\*

Novel amorphous iridium complexes have been synthesized for organic light emitting diodes. Their thermal, photophysical, and device properties are presented.

786



### The fixation of linear *versus* loop-type peptidic structures by metal coordination: the coordination chemistry of Val-Val- and Val-Val-Val-bridged dicatchol ligands

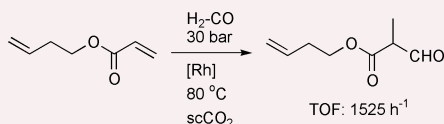
Markus Albrecht,\* Oliver Spieß, Matthias Schneider and Patrick Weis

Linear *versus* cyclic peptide-structures can be selectively stabilized by coordination of Val-Val- or Val-Val-Val-bridged dicatchol ligands to Ti(IV) or Mo(VI)O<sub>2</sub>.

788

**Fast and unprecedented chemoselective hydroformylation of acrylates with a fluoropolymer ligand in supercritical CO<sub>2</sub>**

Yulai Hu, Weiping Chen, Anna M. Banet Osuna, Jon A. Iggo and Jianliang Xiao\*

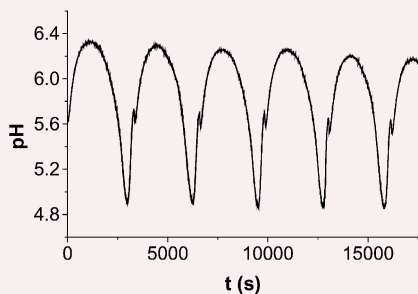


A fluororous polymeric phosphine, when combined with supercritical CO<sub>2</sub> (scCO<sub>2</sub>) and rhodium, effects fast and highly chemoselective hydroformylation of acrylates, one of the least reactive olefins in hydroformylation reactions.

790

**Mechanism of the oscillatory decomposition of the dithionite ion in a flow reactor**

Klára M. Kovács and Gyula Rábai\*

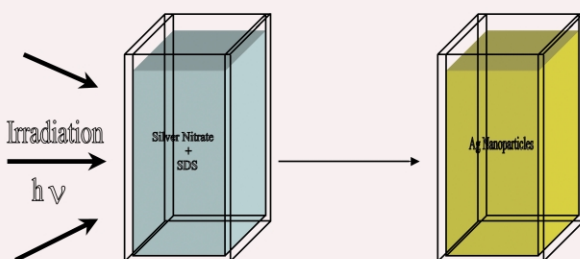


pH-oscillations in the decomposition of the dithionite ion in a flow reactor are reported. A mechanism is suggested which can account for the oscillatory kinetics. This reaction is the first experimental example of the oscillatory decomposition of a single compound.

792

**Preparation of silver nanoparticles in solution from a silver salt by laser irradiation**

J. P. Abid,\* A. W. Wark, P. F. Brevet and H. H. Girault



A new easy method for the preparation of well defined silver nanoparticles is presented; it consists of the irradiation of silver nitrate in the presence of the anionic surfactant sodium dodecyl sulfate.

## ADDITIONS AND CORRECTIONS

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Isabel Casades, Mercedes Alvaro, Hermenegildo García and Mercedes Esplá

**Evidence for an acid-catalysed reaction subordinated to the occurrence of a previous electron transfer in the incorporation of an electron-rich alkene within NaY zeolite**

## CONFERENCE DIARY

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Dates, venues and contact details of forthcoming events.

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\* Indicates the author for correspondence: see article for contact details.

Supplementary crystallographic data are available: see article for further information.

Electronic supplementary information is available on <http://www.rsc.org/esi>: see article for further information.

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