

Cover (far left)
An electroluminescent device based on a ruthenium complex (pp. 2392–2399).

Inside cover (left)
Folate-functionalized shell crosslinked nanoparticles are designed as vessels for targeted delivery to cancer cells that overexpress folate receptors (pp. 2400–2401).

contents

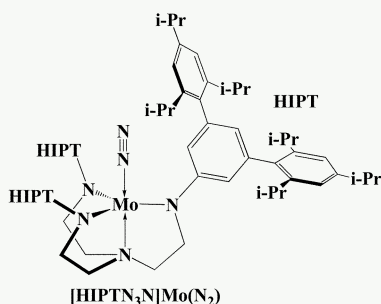
FOCUS ARTICLE

2389

Catalytic reduction of dinitrogen under mild conditions

Richard R. Schrock

Dinitrogen (N_2) is reduced catalytically to ammonia at room temperature and one atmosphere pressure in the presence of protons, a reducing agent, and molybdenum catalysts that contain tetradentate $[HIPTN_3N]^{3-}$ triamidoamine ligands (one example being $[HIPTN_3N]Mo(N_2)$).



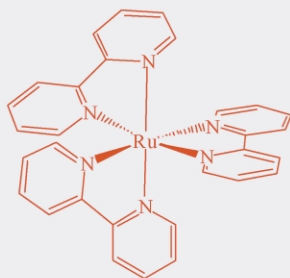
FEATURE ARTICLE

2392

Solid-state electroluminescent devices based on transition metal complexes

Jason Slinker, Dan Bernards, Paul L. Houston, Héctor D. Abruña, Stefan Bernhard and George G. Malliaras*

A discussion of the issues that need to be addressed for transition metal complexes to succeed in display and lighting applications.



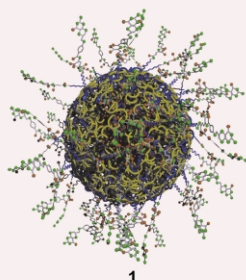
COMMUNICATIONS

2400

Folic acid-conjugated nanostructured materials designed for cancer cell targeting

Dipanjan Pan, Jeffrey L. Turner and Karen L. Wooley*

Folic acid conjugated onto shell cross-linked nanoparticles is designed as a targeting ligand to guide the core-shell nanoparticles to folate expressing cancer cells.



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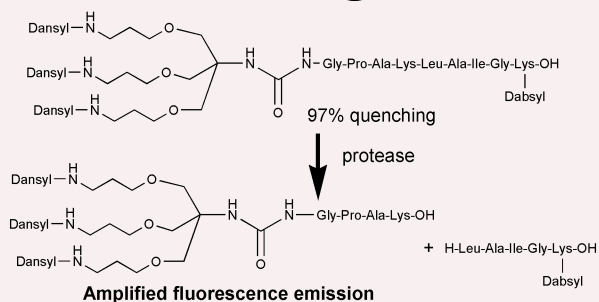
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2402

**Assay amplification-multiple valent fluorophores**

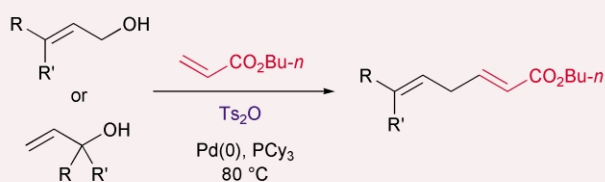
M. Ternon and M. Bradley*

Enzymatic hydrolysis of a multivalent FRET-amplified peptidic substrate with a high energy transfer efficiency, showed considerable increase in fluorescence over the monovalent system. No significant self-quenching was observed with the trivalent dansyl fluorophores.

2404

Palladium-catalyzed allylic alkenylation of allylic alcohols with *n*-butyl acrylate

Naofumi Tsukada,* Tetsuo Sato and Yoshio Inoue

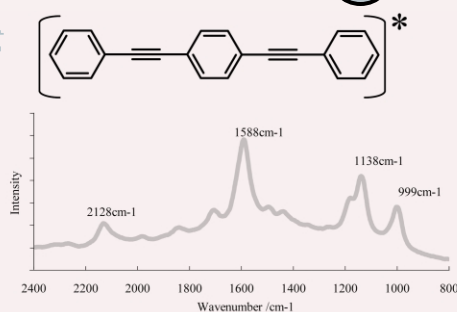


Various allylic alcohols reacted with *n*-butyl acrylate in the presence of *p*-toluenesulfonic anhydride and palladium catalysts to yield the corresponding *n*-butyl 2,5-dienoates with high regioselectivity.

2406

Studies of the S_1 state in a prototypical molecular wire using picosecond time-resolved spectroscopies

Andrew Beeby,* Karen S. Findlay, Paul J. Low,* Todd B. Marder, Pavel Matousek, Anthony W. Parker, Simon R. Rutter and Michael Towrie

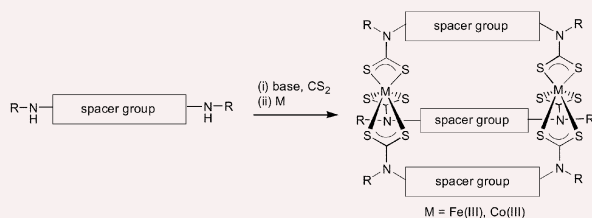


Picosecond time-resolved resonance Raman spectroscopy, TR^3 , reveals an intense acetylenic band in the S_1 state of the prototypical molecular wire 1,4-bis(phenylethynyl)benzene.

2408

Metal-directed self-assembly of bimetallic dithiocarbamate transition metal cryptands and their binding capabilities

Paul D. Beer,* Neil G. Berry, Andrew R. Cowley, Elizabeth J. Hayes, Edward C. Oates and Wallace W. H. Wong

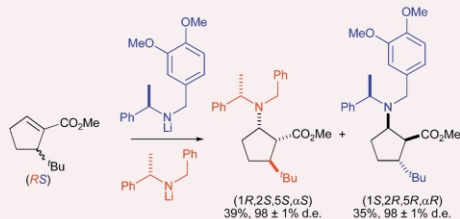


A novel family of redox-active dinuclear transition metal based cryptands self-assembled from dithiocarbamate ligands has been synthesised; depending upon the nature of the spacer groups these new cryptand systems have been shown to electrochemically recognise the binding of cations or anions

2410

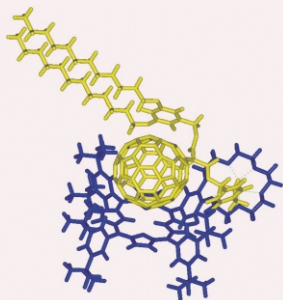
Preparation of methyl (1*R*,2*S*,5*S*)- and (1*S*,2*R*,5*R*)-2-amino-5-*tert*-butyl-cyclopentane-1-carboxylates by parallel kinetic resolution of methyl (*RS*)-5-*tert*-butyl-cyclopentene-1-carboxylate

Stephen G. Davies,* David Díez, Mohamed M. El Hammouni, A. Christopher Garner, Narciso M. Garrido, Marcus J. C. Long, Rachel M. Morrison, Andrew D. Smith, Miles J. Sweet and Jonathan M. Withey



Comparison of the kinetic and parallel kinetic resolutions of methyl (*RS*)-5-*tert*-butyl-cyclopentene-1-carboxylate allows for the efficient synthesis of both (1*R*,2*S*,5*S*)- and (1*S*,2*R*,5*R*)-enantiomers of methyl 2-amino-5-*tert*-butyl-cyclopentane-1-carboxylate.

2412



A supramolecular cup-and-ball C₆₀-porphyrin conjugate system

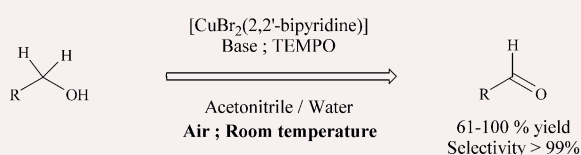
Nathalie Solladié,* Mathieu E. Walther, Maurice Gross, Teresa M. Figueira Duarte, Cyril Bourgoigne and Jean-François Nierengarten*

In addition to the ammonium-crown ether interaction, intramolecular π -stacking of the fullerene moiety and the porphyrin subunit has been evidenced in a supramolecular complex obtained from a porphyrin-crown ether conjugate (in blue) and a fullerene derivative bearing an ammonium unit (in yellow).

2414

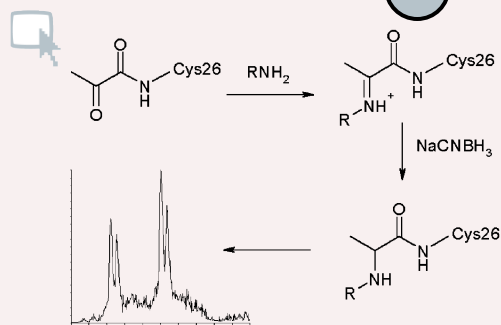
Copper(II)-catalysed aerobic oxidation of primary alcohols to aldehydes

Patrick Gamez, Isabel W. C. E. Arends, Jan Reedijk and Roger A. Sheldon*



[CuBr₂(2,2'-bipyridine)] catalyses the selective and mild aerobic oxidation of primary alcohols to aldehydes in acetonitrile : water (2 : 1) in the presence of 2,2,6,6-tetramethylpiperidiny-1-oxyl (TEMPO) and potassium *tert*-butoxide as cocatalysts.

2416



Rapid screening by MALDI-TOF mass spectrometry to probe binding specificity at enzyme active sites

Michael E. Webb, Elaine Stephens, Alison G. Smith and Chris Abell*

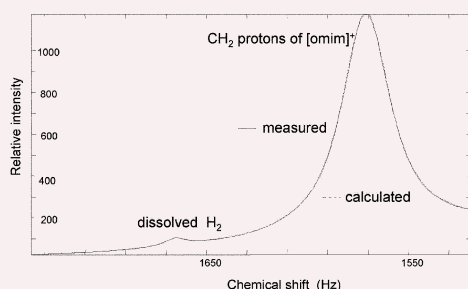
The binding affinity of *E. coli* aspartate decarboxylase has been probed using MALDI-TOF spectrometry after incubation of the enzyme with a range of potential ligands in the presence of NaCNBH₃. This has highlighted key structural features which will aid design of potential inhibitors.

2418

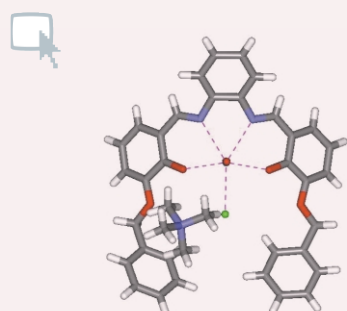
Determination of hydrogen concentration in ionic liquids and the effect (or lack of) on rates of hydrogenation

Paul J. Dyson,* Gábor Laurenczy, C. André Ohlin, James Vallance and Thomas Welton

The solubility of hydrogen gas has been determined in a range of ionic liquids and the implications in hydrogenation catalysis assessed.



2420



Uranyl-salophen based ditopic receptors for the recognition of quaternary ammonium halides

Massimo Cametti, Maija Nissinen, Antonella Dalla Cort,* Luigi Mandolini and Kari Rissanen*

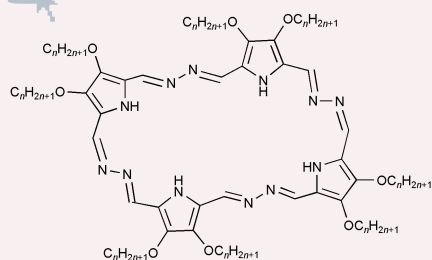
Uranyl-salophen complexes endowed with aromatic side arms behave as very efficient ditopic receptors towards tetralkylammonium halides as a result of a combination of Lewis acid-base and cation- π interactions.

2422

The first liquid-crystalline, expanded porphyrins

Jonathan L. Sessler,* Wyeth Callaway, Stephen P. Dudek, Richard W. Date, Vincent Lynch and Duncan W. Bruce*

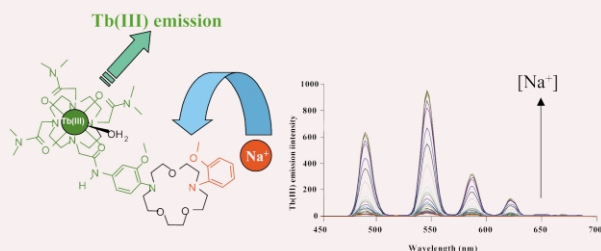
Hydrazine-based, expanded porphyrins show a columnar liquid crystal mesophase.



2424

H⁺, Na⁺ and K⁺ modulated lanthanide luminescent switching of Tb(III) based cyclen aromatic diaza-crown ether conjugates in water

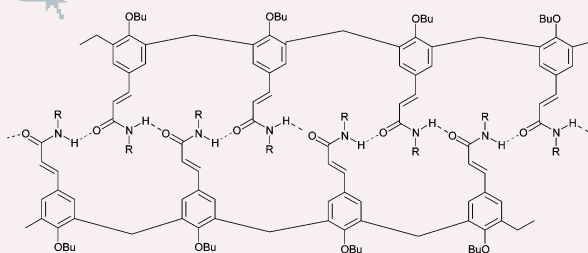
Thorfinnur Gunnlaugsson* and Joseph P. Leonard

The Tb(III) emissions of the diazaaromatic-15-crown-5 and 18-crown-6 cyclen conjugates **1Tb–4Tb** are 'switched on' with large order of magnitude enhancements in the presence of Na⁺ and K⁺ in pH 7.4 buffered water, signifying the recognition of these ions by the crown ether receptors.

2426

The synthesis of tetra-acrylamido-calix[4]arene capsules

Nikolai Kuhnert* and Adam Le-Gresley

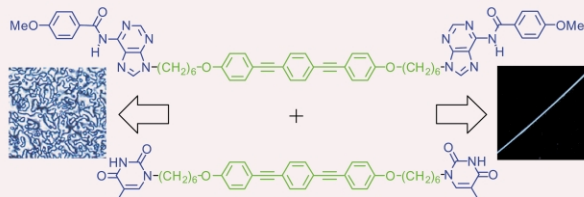
Upper rim substituted tetra-acrylamido-calix[4]arenes have been synthesised which display solvent dependent aggregation in solution to form dimeric capsules stabilised by only eight amide C=O–H–N hydrogen bonds and π – π interactions.

2428

Fluorescent supramolecular liquid crystalline polymers from nucleobase-terminated monomers

Sona Sivakova and Stuart J. Rowan*

Single nucleobase derivatives attached to fluorescent mesogenic cores self-assemble into supramolecular liquid crystalline materials from which oriented fluorescent fibres can be obtained.

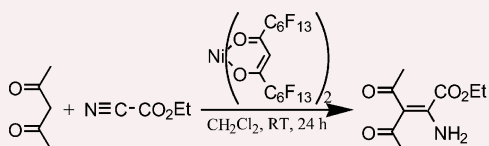


2430

Separation, recovery and recycling of a fluororous-tagged nickel catalyst using fluororous solid-phase extraction

Ben Croxtall, Eric G. Hope and Alison M. Stuart*

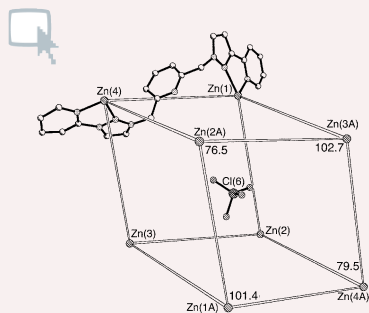
After the Lewis acid catalysed reaction between 2,4-pentanedione and ethyl cyanofornate, the fluororous-tagged Ni catalyst can be separated, recovered and recycled successfully four times using fluororous reverse phase silica gel.



2432

Self-assembly of a molecular M_8L_{12} cube having S_6 symmetry

Zöe R. Bell, Lindsay P. Harding and Michael D. Ward*

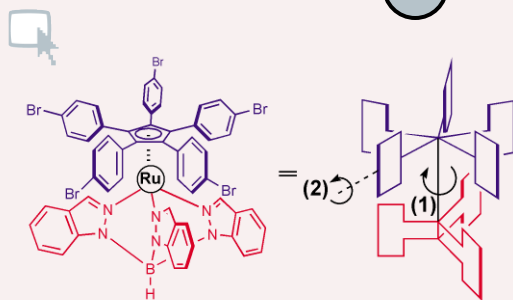


A bridging ligand L^1 with two bidentate pyrazolyl-pyridine termini reacts with $Co(II)$ and $Zn(II)$ salts to produce molecular cubes $[M_8(L^1)_{12}]X_{16}$ ($X = BF_4, ClO_4$) with a metal ion at each corner and a bridging ligand spanning each of the twelve edges; one of the counter-ions lies inside the central cavity.

2434

Technomimetic molecules: synthesis of ruthenium(II) 1,2,3,4,5-penta(*p*-bromophenyl)cyclopentadienyl hydrotris(indazolyl)borate, an organometallic molecular turnstile

Alexandre Carella, Joël Jaud, Gwénaél Rapenne and Jean-Pierre Launay*

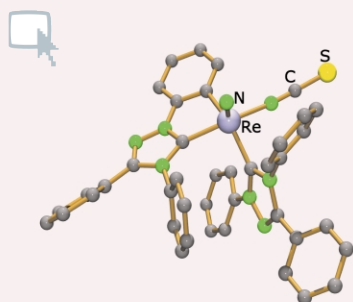


A short route to prepare a ruthenium complex with a pentaphenyl substituted cyclopentadienyl and a hydrotris(indazolyl)borate ligand is described: this complex can be seen as an organometallic molecular turnstile.

2436

Stable nitridorhenium(v) complexes with an N-heterocyclic carbene

Henrik Braband and Ulrich Abram*

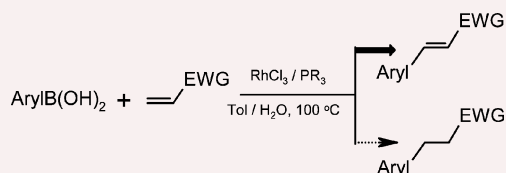


A series of stable nitridorhenium(v) complexes containing the nucleophilic cyclocarbene ligand 1,3,4-triphenyl-1,2,4-triazol-5-ylidene have been synthesised. σ -Donation dominates the rhenium-carbon bonds and allows the stabilisation of the high formal oxidation state of the metal.

2438

Rhodium-catalyzed Heck-type reaction of arylboronic acids with α,β -unsaturated esters: tuning β -hydrogen elimination vs. hydrolysis of alkyrhodium species

Gang Zou,* Zhiyong Wang, Junru Zhu and Jie Tang

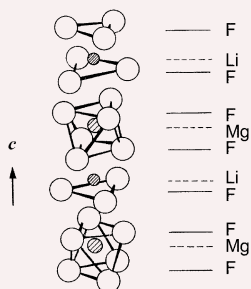


The elusive rhodium-catalyzed Heck-type coupling of arylboronic acids with α,β -unsaturated esters is now effected using a catalytic system that favors β -hydrogen elimination vs. hydrolysis of alkyrhodium intermediates.

2440

***Ab initio* predictions of ferroelectric ternary fluorides with the $LiNbO_3$ structure**

Frederik Claeysens, Josep M. Oliva, Daniel Sánchez-Portal and Neil L. Allan*

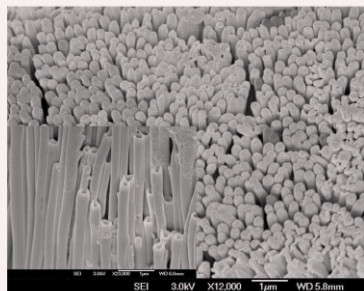


Ternary fluorides $LiMgF_3$, $LiNiF_3$ and $NaCaF_3$ are predicted to adopt a low-temperature ferroelectric structure isomorphous to lithium niobate $LiNbO_3$.

2442

Perylene nanotubes fabricated by the template method

Liyun Zhao, Wensheng Yang, Ying Ma, Jiannian Yao,* Yuliang Li and Huibiao Liu

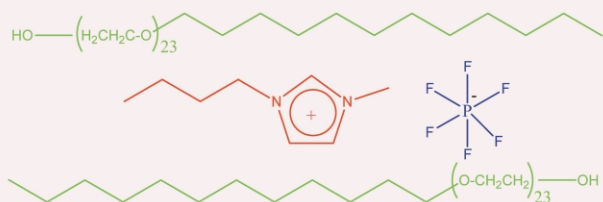


Aligned organic nanotubes of perylene with uniform diameters, lengths and wall thicknesses are fabricated *via* a simple immersion technique using a porous alumina membrane as the template. The capillary effect favors formation of the perylene nanotubes.

2444

Surfactant solvation effects and micelle formation in ionic liquids

Jared L. Anderson, Verónica Pino, Erik C. Hagberg, Valerie V. Sheares and Daniel W. Armstrong*

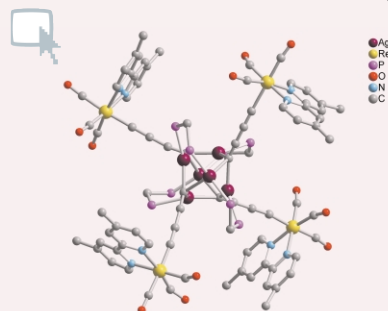


The formation of micelles in 1-butyl-3-methylimidazolium chloride (BMIM-Cl) and hexafluorophosphate (BMIM-PF₆) were explored using different surfactants and the solvation behavior of the new micellar-ionic liquid solutions examined using inverse gas chromatography.

2446

Synthesis and luminescence behaviour of novel heterodecanuclear silver(I)-rhenium(I) alkynyl complexes. X-Ray crystal structures of [Ag₆(μ-dppm)₄{μ₃-C≡CC≡C-Re(Me₂bpy)(CO)₃]₄](PF₆)₂ and [Ag₆(μ-dppm)₄{μ₃-C≡CC≡C-Re(Br₂phen)(CO)₃]₄](PF₆)₂

Vivian Wing-Wah Yam,* Wing-Yin Lo and Nianyong Zhu

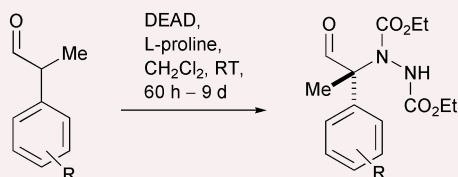


A novel series of luminescent heterodecanuclear mixed-metal alkynyl complexes, [Ag₆(μ-dppm)₄{μ₃-C≡CC≡C-Re(N[^]N)(CO)₃]₄](PF₆)₂, (N[^]N = ^tBu₂bpy, Me₂bpy, phen, Br₂phen), have been successfully synthesized; the X-ray crystal structures of the two title compounds have also been determined.

2448

Proline-catalysed asymmetric amination of α,α-disubstituted aldehydes: synthesis of configurationally stable enantioenriched α-aminoaldehydes

Henning Vogt, Sylvia Vanderheiden and Stefan Bräse*

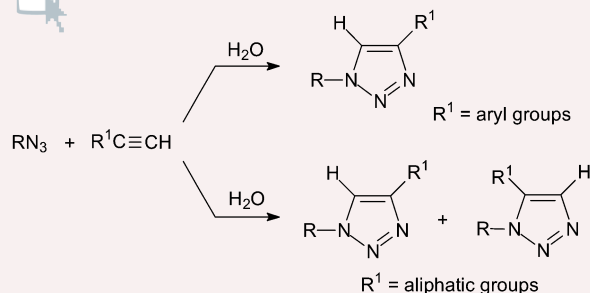


A new asymmetric route to physiologically interesting, configurationally stable α-substituted phenylglycine derivatives includes as a key step the proline-catalysed α-amination of racemic α-aryl aldehydes to yield products in up to 86% ee.

2450

Regioselective synthesis of 1,2,3-triazole derivatives *via* 1,3-dipolar cycloaddition reactions in water

Zhong-Xia Wang* and Hua-Li Qin

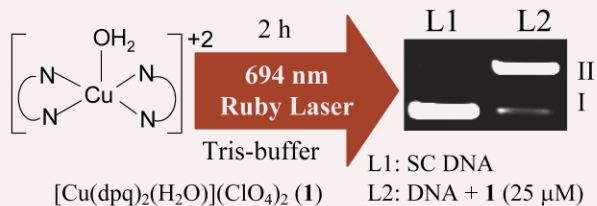


1,3-Dipolar cycloaddition reaction of terminal alkynes with azides in hot water was studied. Aryl alkynes gave 1,4-disubstituted 1,2,3-triazoles and aliphatic alkynes gave a mixture of regioisomers in favour of the 1,4-isomer. In the case of *m*-nitroazidobenzene both aliphatic and aryl alkynes afforded 1,4-disubstituted derivatives.

2452

Metal-assisted red light-induced efficient DNA cleavage by dipyridoquinoxaline-copper(II) complex

Shanta Dhar, Dulal Senapati, Pattubala A. N. Reddy, Puspendu K. Das and Akhil R. Chakravarty*

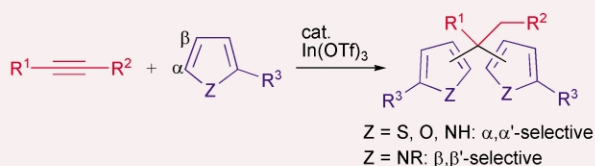


Bis(dipyridoquinoxaline)copper(II) complex, on exposure to red light (694 nm), exhibits complete cleavage of double stranded DNA by a mechanistic pathway involving metal-assisted photosensitization of quinoxaline ligand forming hydroxyl radical.

2454

Indium triflate-catalysed double addition of heterocyclic arenes to alkynes

Teruhisa Tsuchimoto,* Kyuya Hatanaka, Eiji Shirakawa* and Yusuke Kawakami

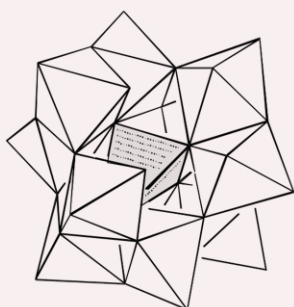


The first intermolecular addition of heterocyclic arenes to alkynes giving double addition products is achieved with a catalytic amount of $In(OTf)_3$ as an alkyne activator.

2456

Creating monolayers and thin films of a novel bis(alkyl) substituted asymmetrical polyoxotungstate, $\{[CH_3(CH_2)_{11}Si]_2OSiW_{11}O_{39}\}^{4-}$ using the Langmuir–Blodgett technique

R. Carlisle Chambers,* Elizabeth J. Osburn Atkinson,* David McAdams, Eric J. Hayden and Davida J. Ankeny Brown

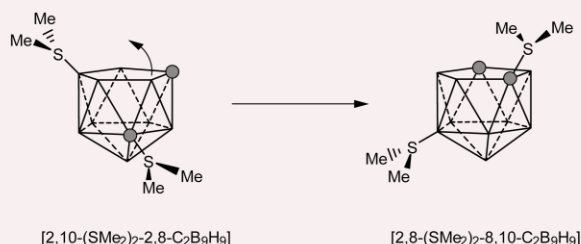


A polyoxometalate-based asymmetrical anionic metallomesogen forms stable and well-ordered thin films prepared by the Langmuir–Blodgett technique.

2458

Neutral *nido*-heteroboranes with non ionisable hydrogen as arenes in coordination

Oscar Tutusaus, Clara Viñas, Raikko Kivekäs, Reijo Sillanpää and Francesc Teixidor*

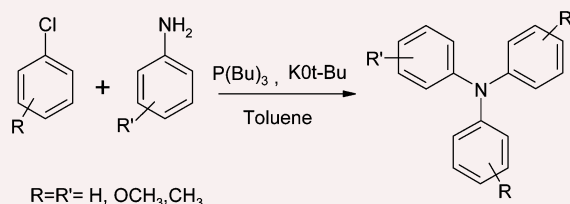


The first arene-like metallacarborane has been synthesised with a neutral carborane ligand; starting with three heteroatoms in the coordinating face, a low temperature ($-63\text{ }^\circ\text{C}$) heteroatom arrangement takes place.

2460

Novel CuI/tributyl phosphine catalyst system for amination of aryl chlorides

Nandkumar M. Patil, Ashutosh A. Kelkar, Zahid Nabi and Raghunath V. Chaudhari*

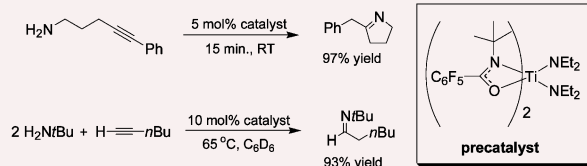


A simple and efficient methodology for the synthesis of triarylamines from aryl chlorides in a single step with high activity and selectivity has been demonstrated using a CuI/tributyl phosphine catalyst system. This is the first report on the catalytic synthesis of triarylamines with high activity and selectivity (80–87% yield) for amination of aryl chlorides using Cu catalyst.

2462

Amidate complexes of titanium and zirconium: a new class of tunable precatalysts for the hydroamination of alkynes

Chunyu Li, Robert K. Thomson, Bronwyn Gillon, Brian O. Patrick and Laurel L. Schafer*

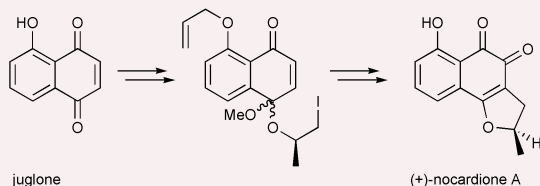


Bis(amidate)group 4-bis(amido) complexes have been prepared, characterized and have been shown to be highly tunable precatalysts for both the intra- and intermolecular hydroamination of alkynes.

2464

Synthesis of (+)-nocardione A — use of formal radical cyclization onto a benzene ring

Derrick L. J. Clive* and Stephen P. Fletcher

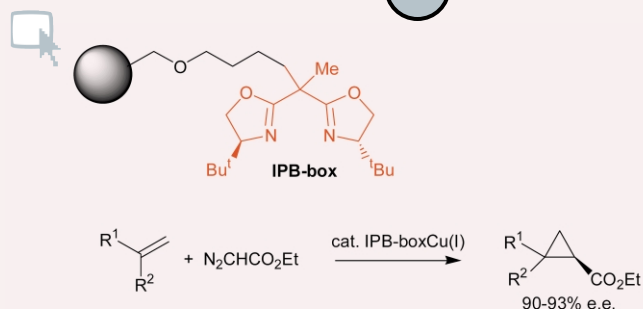


Juglone was converted into (+)-nocardione A, a key step being radical cyclization onto an enone which served as a synthetic equivalent of a benzene ring.

2466

A reusable, insoluble polymer-bound bis(oxazoline) (IPB-box) for highly enantioselective heterogeneous cyclopropanation reactions

Alessandro Mandoli, Simonetta Orlandi, Dario Pini and Piero Salvadori*

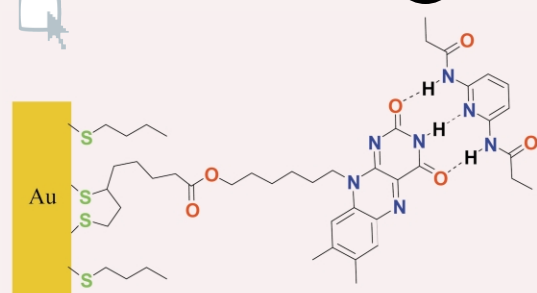


For the first time e.e. values consistently higher than 90% and effective recycling have been obtained in the enantioselective cyclopropanation reaction, by the use of a box ligand covalently linked to an insoluble support.

2468

Model systems for flavoenzyme activity: flavin-functionalised SAMs as models for probing redox modulation through hydrogen bonding

Graeme Cooke,* Florence M. A. Duclairoir, Phillip John, Neil Polwart and Vincent M. Rotello

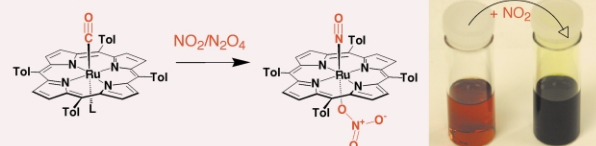


The fabrication of flavin-functionalised SAMs upon gold electrodes and their subsequent redox modulation *via* hydrogen bonding to 2,6-diethylamidopyridine is reported.

2470

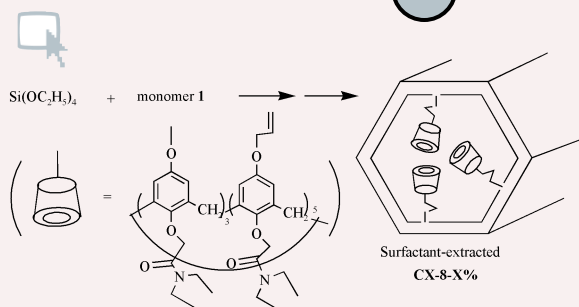
Disproportionation reaction of NO₂/N₂O₄ with a Ru(II) porphyrin

Yanlong Kang, Grigory V. Zyryanov and Dmitry M. Rudkevich*



A Ru(II) porphyrin rapidly reacts with NO₂/N₂O₄ with the formation of a stable Ru(II) nitrosyl nitrate complex.

2472

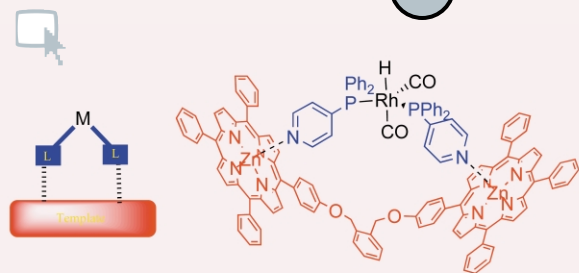


Ordered mesoporous organic–inorganic hybrid materials containing microporous functional calix[8]arene amides

Chunqing Liu, Nathaniel Naismith, Lei Fu and James Economy*

Ordered mesoporous organic–inorganic hybrid materials containing microporous functional calix[8]arene amides have been synthesized and characterized for the first time, and are shown to be effective in removal of trace humic acid contaminant from water.

2474

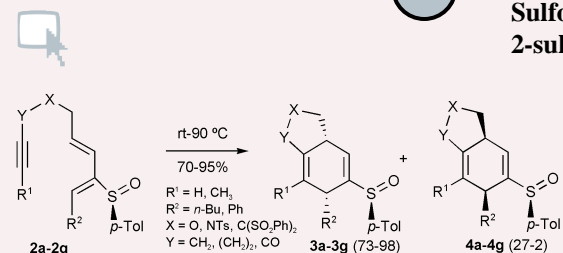


Bidentate ligands formed by self-assembly

Vincent F. Slagt, Piet W. N. M. van Leeuwen and Joost N. H. Reek*

We report a supramolecular strategy to prepare bidentate ligands by just mixing monodentate pyridine phosphorus ligands with a bis-zinc(II) porphyrin template, forming dynamic chelating bidentate ligands by selective coordination.

2476

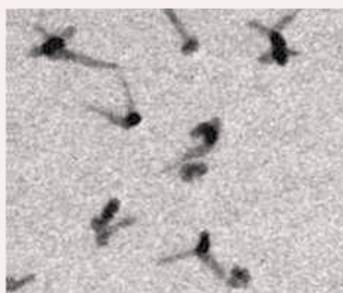


Sulfoxide-directed thermal intramolecular [4 + 2] cycloadditions between 2-sulfinyl butadienes and unactivated alkynes

Roberto Fernández de la Pradilla,* Raquel Baile and Mariola Tortosa

2-Sulfinyl butadienes tethered to unactivated alkynes undergo a facile thermal intramolecular Diels–Alder cycloaddition, often at room temperature, to produce cyclohexa-1,4-dienes with good selectivities and in high yields.

2478

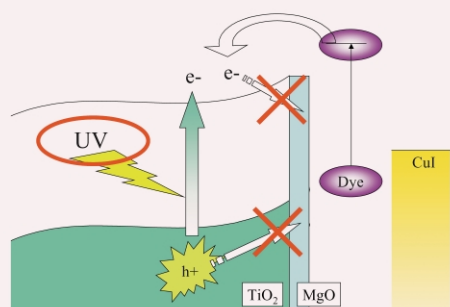


Hexagonal CdTe nanoparticles of various morphologies

Sandeep Kumar and Thomas Nann*

A new, organometallic synthesis method for CdTe nanocrystals using cadmium stearate as cadmium source is described. Nanocrystals of different morphologies were prepared and the metastable crystallographic hexagonal phase was stabilised in all samples.

2480

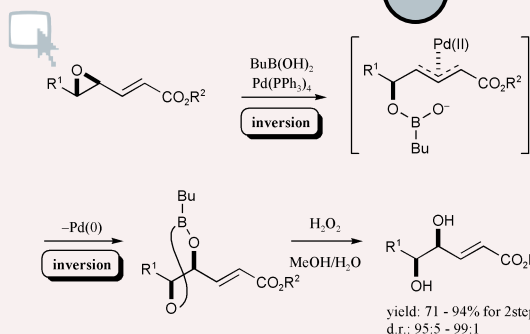


Improving the performance of solid-state dye-sensitized solar cell using MgO-coated TiO₂ nanoporous film

Taketo Taguchi, Xin-tong Zhang, Irwan Sutanto, Ken-ichi Tokuhira, Tata. N. Rao, Hiroko Watanabe, Toshie Nakamori, Masayuki Uragami and Akira Fujishima*

The modification of TiO₂ porous film with a MgO thin layer results not only in higher efficiency but also in higher stability.

2482

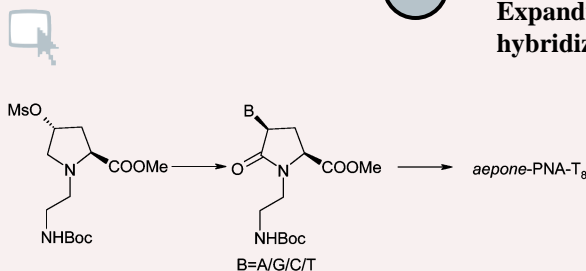


Palladium-catalyzed stereospecific epoxide-opening reaction of γ,δ -epoxy- α,β -unsaturated esters with an alkylboronic acid leading to γ,δ -vicinal diols with double inversion of the configuration

Atsushi Hirai, Xiao-Qiang Yu, Terumichi Tonooka and Masaaki Miyashita*

A palladium-catalyzed stereospecific epoxide-opening reaction of γ,δ -epoxy- α,β -unsaturated esters with an alkylboronic acid leading to γ,δ -vicinal diols is described, which proceeds with retention of the configuration, to afford the corresponding γ,δ -cyclic boronates in high yields.

2484

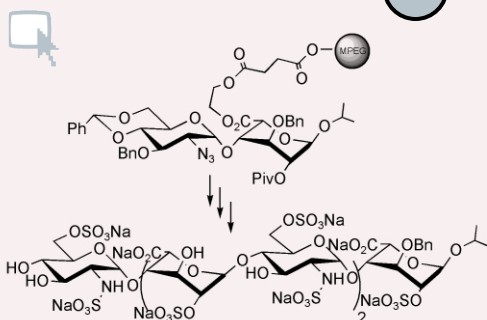


Expanding the repertoire of pyrrolidyl PNA analogues for DNA/RNA hybridization selectivity: aminoethylpyrrolidinone PNA (*aepone*-PNA)

Nagendra K. Sharma and Krishna N. Ganesh*

New Peptide Nucleic Acid (PNA) analogues derived from an aminoethylpyrrolidin-5-one backbone show stabilization of *aepone*-PNA:DNA hybrids and destabilization of the corresponding RNA hybrids compared to unmodified PNA.

2486

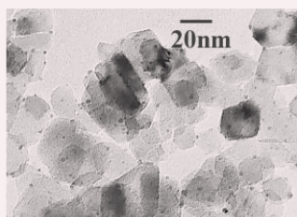


Synthesis of heparin-like oligosaccharides on a soluble polymer support

Rafael Ojeda, José-Luis de Paz and Manuel Martín-Lomas*

Based on previously developed solution phase chemistry, an effective general approach to the synthesis of heparin-like oligosaccharides on a soluble polymer support is reported.

2488

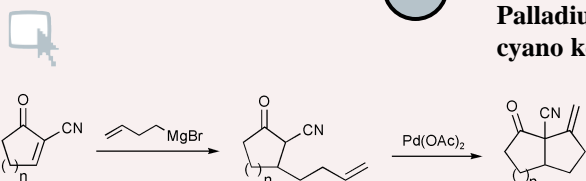


Novel preparation of nanocrystalline magnesia-supported caesium-promoted ruthenium catalyst with high activity for ammonia synthesis

Shan Wu, Jixin Chen, Xingfang Zheng, Haisheng Zeng, Chunming Zheng and Naijia Guan*

Well-defined ruthenium nanoparticles were deposited on nanocrystalline magnesia whereas ready-made magnesia product was not necessary. The obtained catalyst showed high activity for ammonia synthesis.

2490

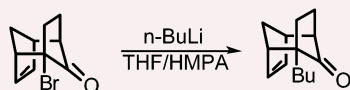


Palladium(II) acetate mediated oxidative cyclization of ω -unsaturated α -cyano ketones. A facile methylenecyclopentane annulation process

Liang-Rern Kung, Che-Hao Tu, Kak-Shan Shia and Hsing-Jang Liu*

A highly efficient process has been developed for the introduction of a methylenecyclopentane ring to 2-cyano-2-cycloalkenones.

2492

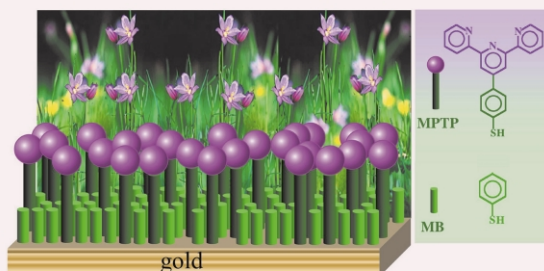


Substitution of a bridgehead bromide by primary organolithium reagents

Michael Harmata* and Sumrit Wacharasindhu

The reaction of tricyclic bromoketone with primary organolithium reagents in THF/HMPA affords not the expected carbonyl addition product but the product of bromide substitution, in reasonable yield.

2494

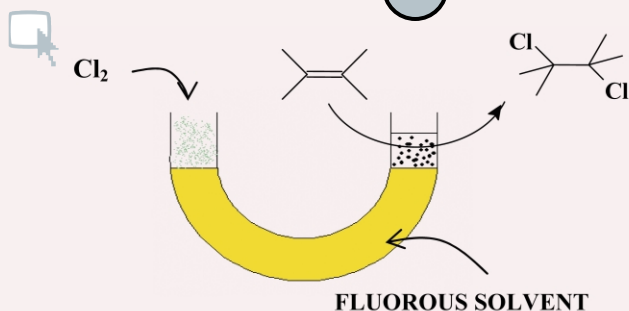


Organized assemblies of thiol-terpyridine and thiophenol on gold surfaces: preferential composition of mixed species evidenced

Alessandro Auditore, Nunzio Tuccitto, Giovanni Marzanni, Silvio Quici, Fausto Puntoriero, Sebastiano Campagna and Antonino Licciardello*

In mixed-species SAMs prepared on gold surfaces using MPTP and MB mixtures there is a preferred composition of the resulting surface layer, corresponding to a particular MPTP:MB ratio, over a wide range of different stoichiometric ratios of the two components used in the starting solutions.

2496

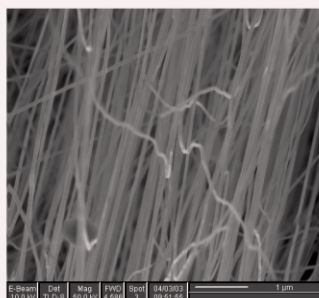


Use of a fluorous bridge for diffusion controlled uptake of molecular chlorine in chlorine addition to alkenes

Jernej Iskra,* Stojan Stavber and Marko Zupan

Fluorous solvent was used for passive transport of molecular chlorine from one side of the U-tube to the other, where addition of chlorine to alkenes was quantitative and diffusion controlled.

2498

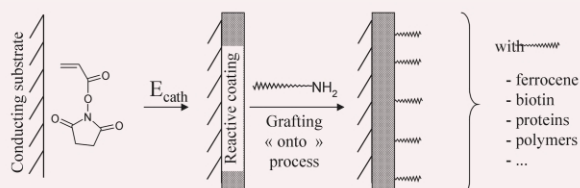


Controllable CVD route to CoS and MnS single-crystal nanowires

Jianping Ge and Yadong Li*

CoS and MnS nanowires were prepared through a simple chemical vapor deposition process. The adopted synthetic route is expected to be applicable for the synthesis of other metal sulfide semiconductor nanowires.

2500



Preparation of reactive surfaces by electrografting

C. Jérôme,* S. Gabriel, S. Voccia, C. Detrembleur, M. Ignatova, R. Gouttebaron and R. Jérôme

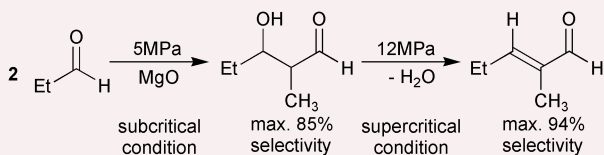
Electrografting of an *N*-succinimidyl acrylate monomer confers reactivity to a variety of conducting materials becoming then appropriate for the anchoring of a broad diversity of molecules (catalysts, proteins, amino-polymers *etc.*).

with :

- ferrocene
- biotin
- proteins
- polymers
- ...

2502

Control of self-aldol condensation by pressure manipulation under compressed CO₂

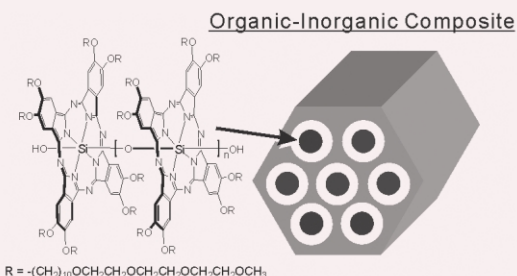


Keitaro Matsui, Hajime Kawanami,* Yutaka Ikushima and Hiromichi Hayashi

Simple pressure manipulation was found to successfully control the ratio of aldol/enal products in self-aldol condensation, obtaining the enal product at a maximum selectivity of 94% at the critical pressure.

2504

Preparation of organic–inorganic composites containing rod-like phthalocyanine polymers

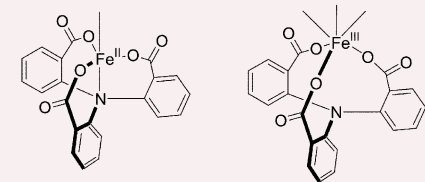


Mutsumi Kimura,* Kazumi Wada, Yayoi Iwashima, Kazuchika Ohta, Kenji Hanabusa, Hirofusa Shirai* and Nagao Kobayashi

Sol-gel polymerization of tetraethoxysilane in the presence of an amphiphilic phthalocyanine polymer produced organic–inorganic composites with the rod-like phthalocyanine polymers incorporated within ordered hexagonal channels.

2506

Redox-triggered on/off coordination of a bridgehead nitrogen donor in a tripodal iron complex

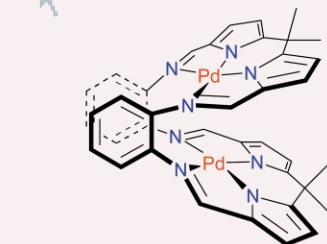


Stefan Wörl, Dieter Hellwinkel, Hans Pritzkow and Roland Krämer*

The triaryl nitrogen atom is choosy and forms a coordinative bond with Fe^{II} but not with Fe^{III} in 2,2',2''-nitrilotribenzoate complexes. This is the first example of a redox-triggered on/off coordination of a bridgehead donor atom in a tripodal complex.

2508

Macrocyclic diiminodipyrromethane complexes: structural analogues of Pac-Man porphyrins



Gonzalo Givaja, Alexander J. Blake, Claire Wilson, Martin Schröder* and Jason B. Love*

The complexation of palladium(II) by a unique family of [2+2] diiminodipyrromethane macrocycles yields compounds that adopt structures reminiscent of Pac-Man porphyrins.

2510

Jeffrey M. Pietryga, Jamie N. Jones, Lucille A. Mullins, Robert J. Wiacek and Alan H. Cowley

An unprecedented mode of ligation for a bridged amido-cyclopentadienide (constrained geometry) ligand; π-olefinic interactions with gallium and indium

ADDITIONS AND CORRECTIONS

2510

Rakesh Kumar Mahajan, Inderpreet Kaur, Ravneet Kaur, Sohya Uchida, Aki Onimaru, Satoshi Shinoda and Hiroshi Tsukube

Anion receptor functions of lanthanide tris(β -diketonate) complexes: naked-eye detection and ion-selective electrode determination of Cl^- anion

2510

Jeff Grunes, Ji Zhu and Gabor A. Somorjai

Catalysis and nanoscience

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.



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