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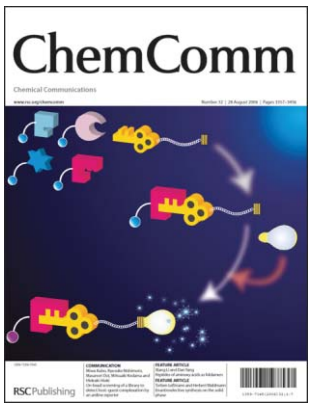
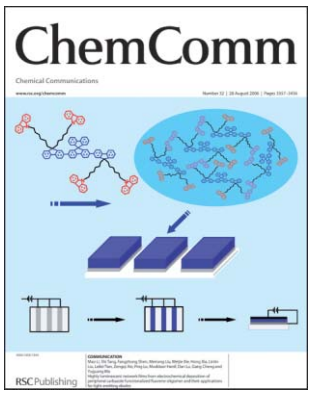


Cover
See Hideaki Hioki *et al.*, page 3390. A new labeling reagent and color assay system in water to detect binding between target molecules and library members.
Image reproduced by permission of Miwa Kubo, Ryosuke Nishimoto, Masanori Doi, Mitsuaki Kodama and Hideaki Hioki, from *Chem. Commun.*, 2006, 3390.



Inside cover
See Yuguang Ma *et al.*, page 3393. The image shows a schematic representation of the highly fluorescent thin films prepared by electropolymerization from an electroactive precursor and their application for LEDs.
Image reproduced by permission of Mao Li, Shi Tang, Fangzhong Shen, Meirong Liu, Weijie Xie, Hong Xia, Linlin Liu, Leilei Tian, Zengqi Xie, Ping Lu, Muddasir Hanif, Dan Lu, Gang Cheng and Yuguang Ma, from *Chem. Commun.*, 2006, 3393.

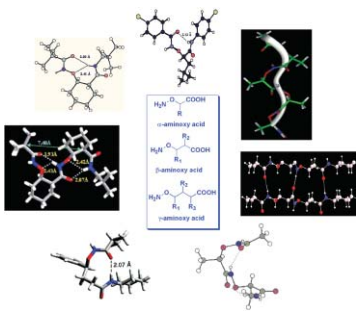
FEATURE ARTICLES

3367

Peptides of aminoxy acids as foldamers

Xiang Li and Dan Yang*

Aminoxy acids turn out to be useful building blocks to construct foldamers. Peptides consisting of aminoxy acids adopt several well-defined secondary structures to mimic those found in natural proteins, such as turns, helices and sheets.

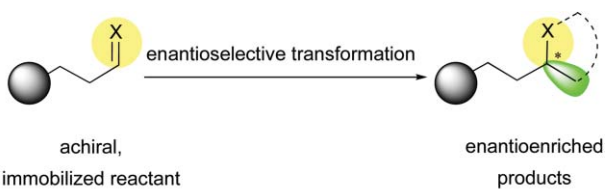


3380

Enantioselective synthesis on the solid phase

Torben Leßmann and Herbert Waldmann*

The article presents and discusses progress in the generation of non-racemic compounds from starting materials anchored to a polymeric carrier.



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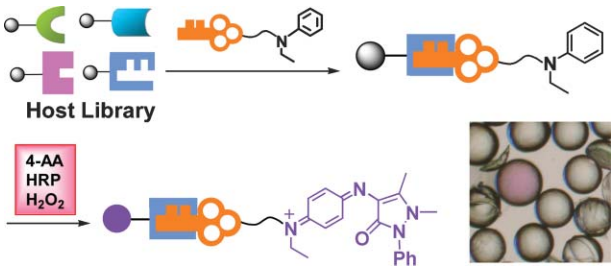
On-bead screening of a library to detect host–guest complexation by an aniline reporter

Miwa Kubo, Ryosuke Nishimoto, Masanori Doi, Mitsuaki Kodama and Hideaki Hioki*

A new labeling reagent and a color assay system in water have been developed to detect binding between target molecules and library members on beads, which are free of label-induced artifacts that might lead to misleading results.



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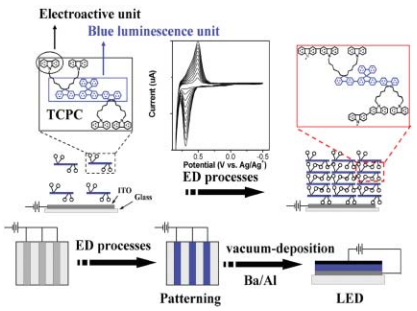
Highly luminescent network films from electrochemical deposition of peripheral carbazole functionalized fluorene oligomer and their applications for light-emitting diodes

Mao Li, Shi Tang, Fangzhong Shen, Meirong Liu, Weijie Xie, Hong Xia, Linlin Liu, Leilei Tian, Zengqi Xie, Ping Lu, Muddasir Hanif, Dan Lu, Gang Cheng and Yuguang Ma*

Highly luminescent network films are prepared by electropolymerization, which demonstrates that electrochemical synthesis can be a new route to construct the highly luminescent films.



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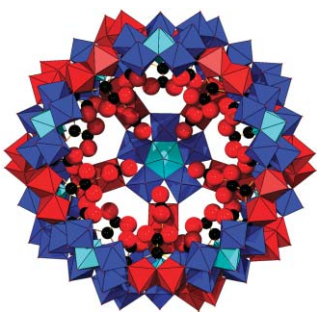
Reactions inside a porous nanocapsule/artificial cell: encapsulates' structuring directed by internal surface deprotonations

Achim Müller,* Liviu Toma, Hartmut Bögge, Marc Henry, Erhard T. K. Haupt, Andreas Mix and Filipa L. Sousa

Functionality changes of the internal surface of molybdenum oxide based capsules influence the encapsulates' structures.

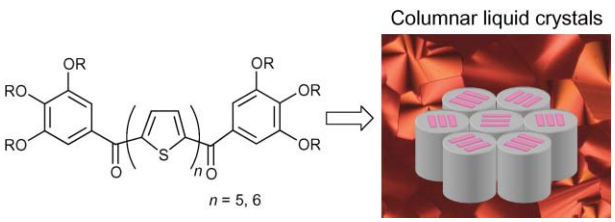


3399

Columnar liquid crystalline π-conjugated oligothiophenes

Takuma Yasuda, Kenji Kishimoto and Takashi Kato*

Polycatenar oligothiophenes possessing terminal trialkoxybenzoyl groups self-organise into columnar liquid crystalline phases, and a high mesoscopic order can be induced in the mesophases by application of mechanical shear force.



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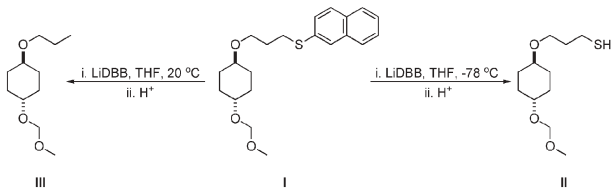
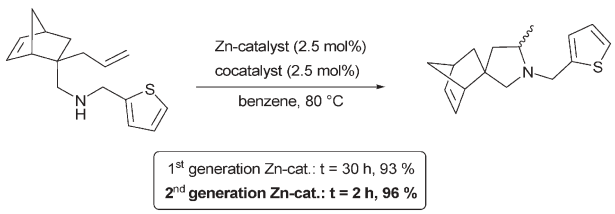


Cryovoltammetrically probing functional group reductive cleavage: alkyl–sulfur *versus* aryl–sulfur bond cleavage in an alkyl naphthyl thioether under single electron-transfer is temperature switchable

Christopher A. Paddon, Farrah L. Bhatti, Timothy J. Donohoe* and Richard G. Compton*

The reductive cleavage of naphthyl thioether **I** at different temperatures showed that the mechanism of reductive cleavage changes at low temperature and this selectivity is proved using an electrochemical analysis.

3405

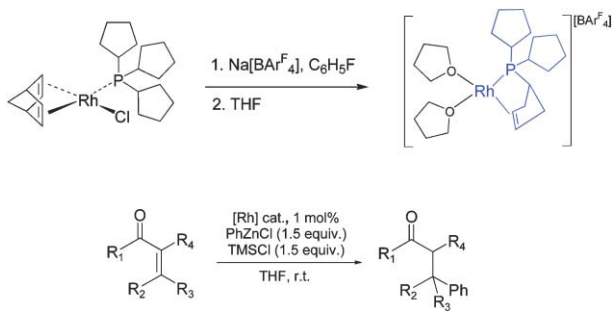


A new homogeneous zinc complex with increased reactivity for the intramolecular hydroamination of alkenes

Maximilian Dochnahl, Jens-Wolfgang Pissarek, Siegfried Blechert,* Karolin Löhnwitz and Peter W. Roesky*

A new homogeneous zinc complex with a modified aminotroponiminate ligand was found to exhibit superior activity in the intramolecular hydroamination of various secondary amines.

3408

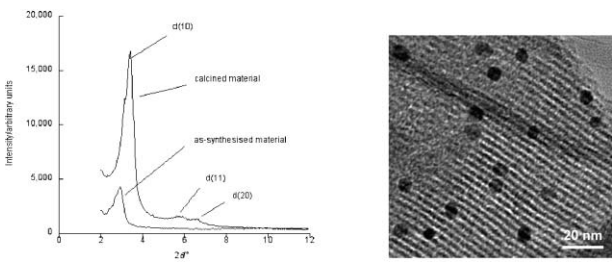


Phosphine–olefin ligands: a facile dehydrogenative route to catalytically active rhodium complexes

Thomas M. Douglas, Jérôme Le Nôtre, Simon K. Brayshaw, Christopher G. Frost* and Andrew S. Weller*

Facile, metal-mediated, (acceptorless) dehydrogenation of tricyclopentyl phosphine directly affords rhodium chelating phosphine–olefin complexes, some of which are catalytically active for 1,4-addition of organometallics.

3411



The preparation by true liquid crystal templating of mesoporous silicates containing nanoparticulate metals

Nicola C. King, Ross A. Blackley, Wuzong Zhou and Duncan W. Bruce*

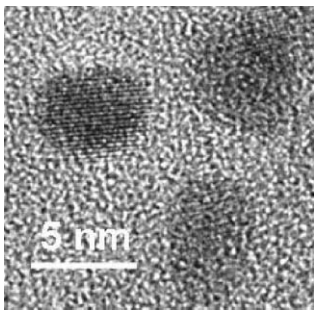
Using a simple and versatile method, mesostructured silicates are prepared doped with a range of transition metals.

3414

The synthesis of mesoporous silicates containing bimetallic nanoparticles and magnetic properties of PtCo nanoparticles in silica

Nicola C. King, Ross A. Blackley, M. Lesley Wears, David M. Newman, Wuzong Zhou and Duncan W. Bruce*

Using a true liquid crystal templating approach, mesostructured silicates are prepared containing bimetallic nanoparticles; ferromagnetic properties are found for samples containing PtCo particles.

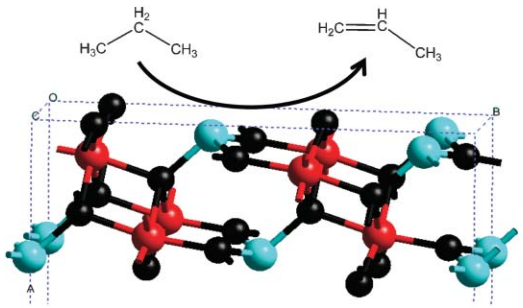


3417

Nanocrystalline cobalt oxide: a catalyst for selective alkane oxidation under ambient conditions

Thomas E. Davies, Tomás García, Benjamín Solsona and Stuart H. Taylor*

Nanocrystalline cobalt oxide activates propane, yielding propene with high selectivity at ambient temperature and pressure.

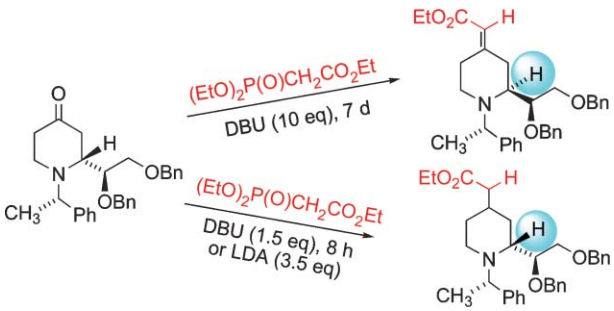


3420

Unexpected epimerization at C_2 in the Horner–Wadsworth–Emmons reaction of chiral 2-substituted-4-oxopiperidines

Pablo Etayo, Ramón Badorrey, María D. Díaz-de-Villegas* and José A. Gálvez*

The observed epimerization at C_2 in the Horner–Wadsworth–Emmons (HWE) reaction of chiral 2-substituted-4-oxopiperidines has been investigated and, on the basis of the experimental results, a mechanism for this unexpected process has been proposed.

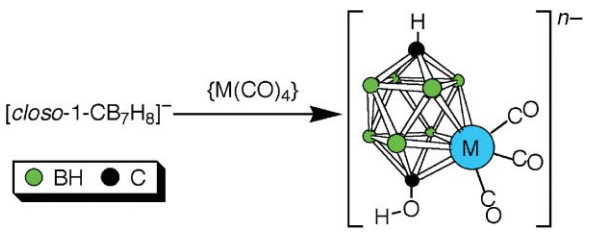


3423

Carbonyl–metal fragment insertion into eight-vertex [*closo*-1-CB_7H_8]$^-$. Facile synthesis of ten-vertex metalladicarbollide complexes [2,2,2-$(CO)_3$-1-OH-*closo*-2,1,10-$MC_2B_7H_8$]$^{n-}$ {M = Fe, Ru (n = 0), Mn, Re (n = 1)}

Andreas Franken, Peng Lei, Thomas D. McGrath and F. Gordon A. Stone

Insertion of {$M(CO)_4$} fragments into the eight-vertex monocarborane [*closo*-1-CB_7H_8]$^-$ affords ten-vertex {*closo*-2,1,10-MC_2B_7} metalladicarbollide complexes.



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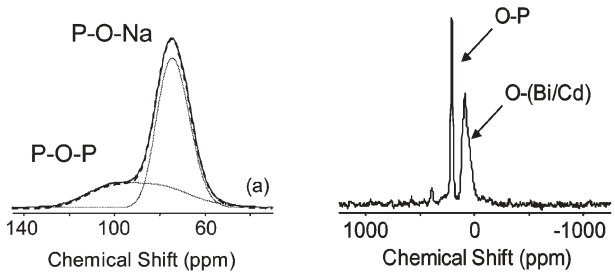
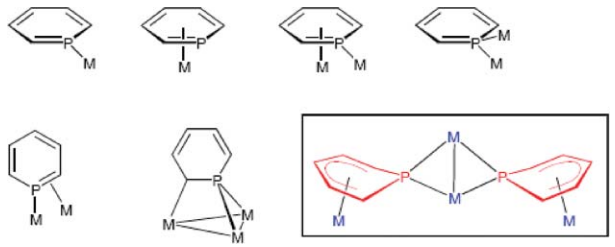


A new ^{17}O-isotopic enrichment method for the NMR characterisation of phosphate compounds

Alexandrine Flambard, Lionel Montagne* and Laurent Delevoye

Heating phosphate compounds under ^{17}O-enriched water vapour is an easy and rapid method to prepare homogeneously enriched and pure samples for the acquisition of ^{17}O NMR spectra with a good sensitivity.

3429

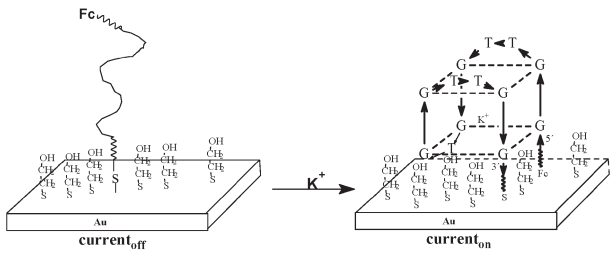


On a novel coordination mode of phosphinine C_5H_5P

Christoph Elschenbroich,* Jörg Six and Klaus Harms

In an unprecedented coordination mode phosphinine simultaneously bridges a metal–metal bond and this metal–metal bond with a metal–carbonyl fragment. The unsymmetrical nature of the μ-phosphinine–$Mn_2(CO)_7$ bridge may simply be traced to the 18VE requirement.

3432

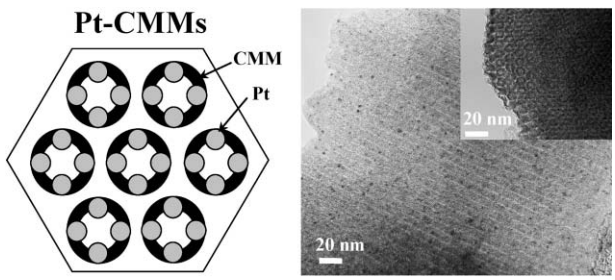


Aptamer conformational switch as sensitive electrochemical biosensor for potassium ion recognition

Abd-Elgawad Radi* and Ciara K. O'Sullivan*

We report the first use of an electrochemical aptasensor for selective potassium recognition, based on a conformational change, affording an electric signal transduced electrochemically by square wave voltammetry or electrochemical impedance spectroscopy.

3435



Controlled synthesis of highly dispersed platinum nanoparticles in ordered mesoporous carbons

Shou-Heng Liu, Rong-Feng Lu, Shing-Jong Huang, An-Ya Lo, Shu-Hua Chien and Shang-Bin Liu*

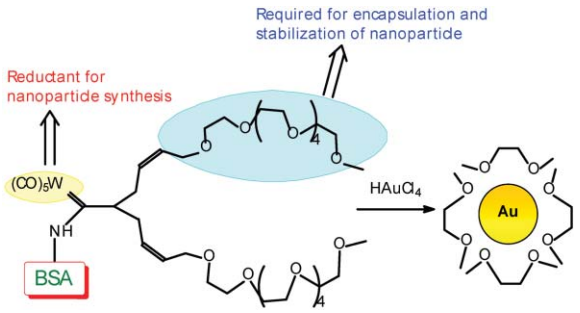
A novel procedure to synthesize ordered carbon mesoporous materials (CMMs) with well-dispersed, highly stable metal nanoparticles on the pore walls using an organometallic reagent as the co-feeding carbon and metal precursor is reported.

3438

In situ generation of gold nanoparticles on a protein surface: Fischer carbene complex as reducing agent

Debasis Samanta, Sudeshna Sawoo and Amitabha Sarkar*

Suitably designed hydrophilic Fischer carbene complexes, "free" in solution as well as "anchored" to a biomolecule can reduce Au(III) to gold nanoparticles in aqueous buffer, providing a convenient access to novel nanobioconjugates.



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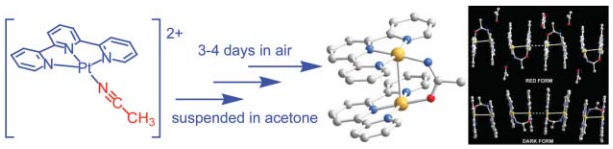
Unprecedented formation of an acetamidate-bridged dinuclear platinum(II) terpyridyl complex—correlation of luminescence properties with the crystal forms and dimerization studies in solution

Keith Man-Chung Wong,* Nianyong Zhu and Vivian Wing-Wah Yam*

A luminescent acetamidate-bridged dinuclear platinum(II) terpyridyl complex, $[\{Pt(trpy)\}_2(\mu\text{-}\eta^1{:}\eta^1\text{-}NHC(=O)Me)](OTf)_3$, has been prepared unexpectedly, from a common precursor complex, $[Pt(trpy)(CH_3CN)](OTf)_2$, with two crystal forms isolated.

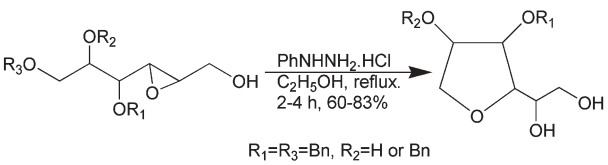


3444

Stereoselective synthesis of highly *O*-functionalized enantiopure 2,3,4-trisubstituted tetrahydrofurans by tandem debenzylative cyclization of glycal derived 2,3-epoxy alcohols

L. Vijaya Raghava Reddy, Abhijeet Deb Roy, Raja Roy and Arun K. Shaw*

A new and highly efficient methodology for the construction of synthetically important highly *O*-functionalized enantiopure 2,3,4-trisubstituted tetrahydrofurans with three contiguous stereocenters is reported.



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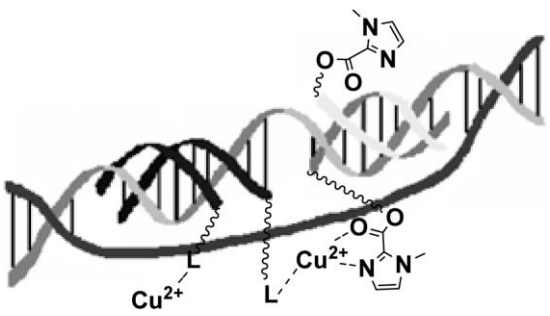
Metal complex catalysis on a double stranded DNA template

Iris Boll, Elmar Jentzsch, Roland Krämer and Andriy Mokhir*

The reaction of ester hydrolysis catalysed by a DNA duplex in a sequence specific fashion has been developed.



ADDITION AND CORRECTION

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Miwa Kubo, Ryosuke Nishimoto, Masanori Doi, Mitsuaki Kodama and Hideaki Hioki

On-bead screening of a library to detect host–guest complexation by an aniline reporter

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