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ChemComm

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Cover
Electrostatically driven assembly of a donor-acceptor unit, namely, a ruthenium-(II)-polypyridyl-C60 dyad, onto a modified ITO electrode, useful for energy conversion (pp 2517–2525).

contents

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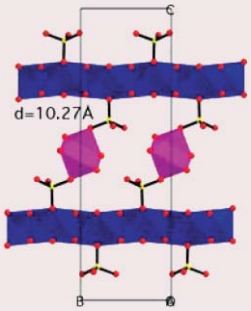

$Co^{II}_5(OH)_6(SO_4)_2(H_2O)_4$: the first ferromagnet based on a layered cobalt–hydroxide pillared by inorganic OSO_3–$Co(H_2O)_4$–O_3SO

Mohsen, Ben Salah, Serge Vilminot,* Mireille Richard-Plouet, Gilles André, Tahar Mhiri and Mohamedally Kurmoo

$Co^{II}_5(OH)_6(SO_4)_2(H_2O)_4$ is the first synthetic mineral, obtained by hydrothermal reaction of $CoSO_4 \cdot 7H_2O$ and NaOH, having brucite layers bridged by inorganic pillars, OSO_3–$Co(H_2O)_4$–O_3SO, and is a ferromagnet below 12 K.

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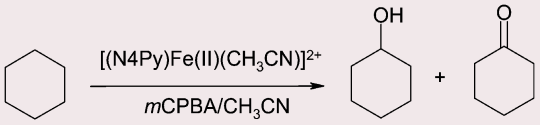
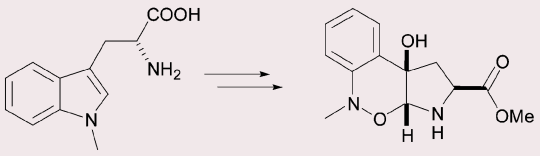


Enhanced selectivity in non-heme iron catalysed oxidation of alkanes with peracids: evidence for involvement of Fe(IV)=O species

Tieme A. van den Berg, Johannes W. de Boer, Wesley R. Browne, Gerard Roelfes and Ben L. Feringa*

Selectivity in the non-heme iron catalysed oxidation of alkanes is improved with the use of peracids: the critical role of high valent oxo species, molecular oxygen and hydroxyl radicals is investigated.

2552

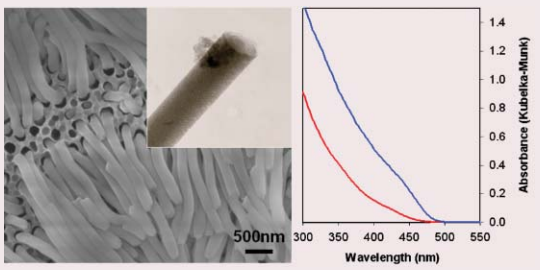


Biomimetic synthesis of the pyrrolobenzoxazine core of paeciloxazine

Dirk Schwaebisch, Kirill Tchabanenko, Robert M. Adlington, Andrew M. Cowley and Jack E. Baldwin*

The pyrrolobenzoxazine core of the novel antibiotic paeciloxazine can be synthesized in a short reaction sequence starting from L-tryptophan.

2554

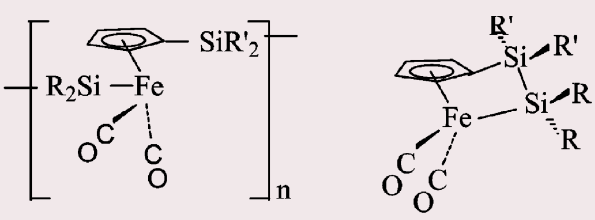


Hierarchically ordered CdS doped nanoporous membrane

Weon-Sik Chae, Sang-Wook Lee, Sung-Jae Im, Sik-Won Moon, Wang-Cheol Zin, Jin-Kyu Lee and Yong-Rok Kim*

Large-dimension ($\sim$5 cm^2) heterogeneous nanoporous membranes were obtained by the formation of CdS doped mesoporous silica within the porous channels of alumina membranes, which present optical absorption corresponding to the CdS particles in the mesoporous networks.

2556

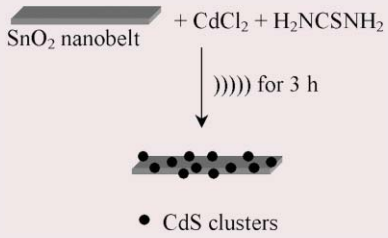


The substituent-dependent base-treatment chemistry of $(\eta^5\text{-}C_5H_5)Fe(CO)_2SiR_2SiR_2Cl$: formation of 1,2-disila-3-metallacyclobutanes, their ring-opened polymers, migrations and substitutions

Hemant K. Sharma and Keith H. Pannell*

Disilametallacycles, high molecular weight polymers or simple substitution products are formed from the reactions of 1-(cyclopentadienyliron dicarbonyl)-2-chlorodisilanes with bases, LDA or *n*-BuLi.

2558

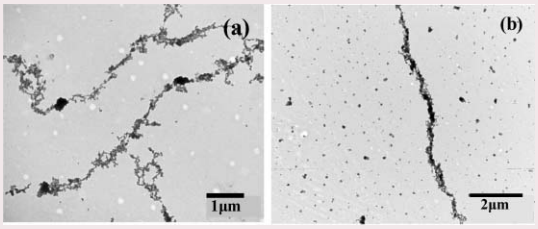


Sonochemical synthesis of SnO_2 nanobelt/CdS nanoparticle core/shell heterostructures

Tao Gao* and Taihong Wang

Ultrasonic irradiation of a mixture of SnO_2 nanobelts, cadmium chloride, and thiourea in an aqueous medium generates the core/shell-type SnO_2 nanobelt/CdS nanoparticle heterostructures.

2560



Magnetic nanoparticle assemblies on denatured DNA show unusual magnetic relaxivity and potential applications for MRI

Stephen J. Byrne, Serena A. Corr, Yurii K. Gun'ko,* John M. Kelly,* Dermot F. Brougham* and Swapankumar Ghosh

Denatured herring sperm DNA acts as a template for the preparation of magnetic nanowires, forming stable aqueous suspensions, which exhibit unprecedentedly high relaxivity at low field.

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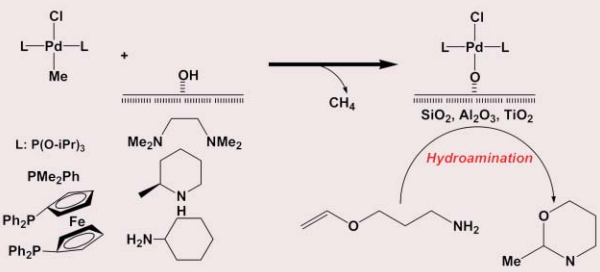
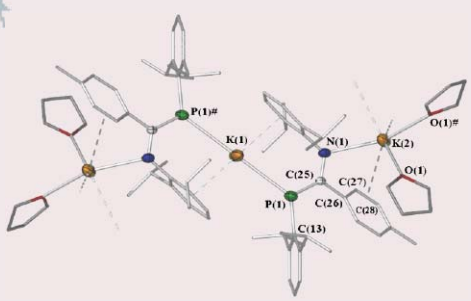


Oxide surface-promoted Pd-complex catalysis for intramolecular O-activated alkene hydroamination: catalyst preparation, characterization, and performance

Mizuki Tada, Michio Shimamoto, Takehiko Sasaki and Yasuhiro Iwasawa*

Supported Pd–P and Pd–N complexes on SiO_2, Al_2O_3, and TiO_2 characterized by EXAFS, XPS, XRF, and gas analysis exhibited oxide surface-promoted catalysis for the intrahydroamination of 3-aminopropanol vinyl ether.

2564

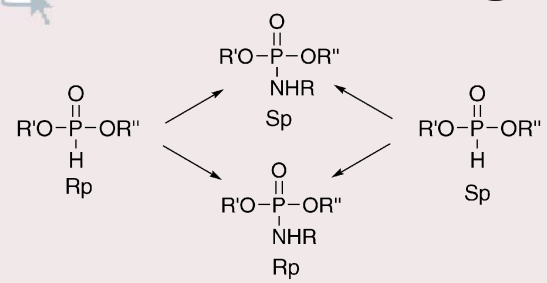


An *N*,*P*-disubstituted-2-aminophosphaalkene and lithium and potassium complexes of the deprotonated "phosphaamidinate" anion

René T. Boeré,* Marcus L. Cole, Peter C. Junk, Jason D. Masuda and Gotthelf Wolmershäuser

A direct route to phosphaalkenes bearing a secondary amine on the double-bond carbon is reported; upon metallation structural changes occur which are consistent with charge delocalization in the anion.

2566



Controlling stereochemistry during oxidative coupling. Preparation of *Rp* or *Sp* phosphoramidates from one P-chiral precursor

Johan Nilsson and Jacek Stawinski*

A synthetic protocol based on H-phosphonate chemistry was developed that enables synthesis of *Rp* or *Sp* phosphoramidates form one P-chiral precursor.

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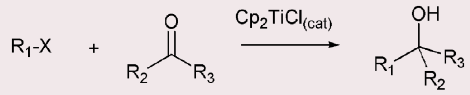
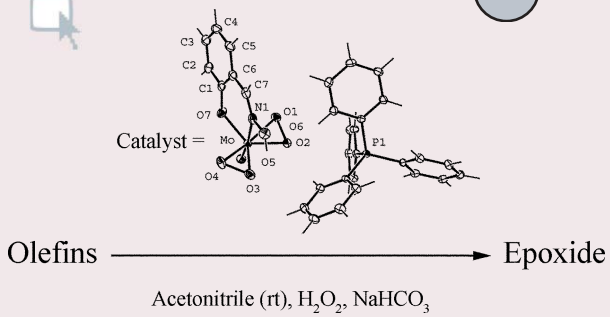


Unprecedented Barbier-type reactions catalysed by titanocene(III)

Antonio Rosales, Juan L. Oller-López, José Justicia, Andreas Gansäuer,* J. Enrique Oltra* and Juan M. Cuerva*

Efficient Barbier-type allylation, benzylation and propargylation reactions can be carried out under extremely mild conditions employing titanocene(III) complexes as catalysts.

2630



Highly efficient epoxidation method of olefins with hydrogen peroxide as terminal oxidant, bicarbonate as a co-catalyst and oxodiperoxo molybdenum(VI) complex as catalyst

Narottam Gharah, Santu Chakraborty, Alok K. Mukherjee and Ramgopal Bhattacharyya*

The catalyst (tetraphenylphosphonium salicylaldoximatooxo diperoxomolybdate(VI)) and $NaHCO_3$ combination is a highly efficient system for olefin epoxidation.

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