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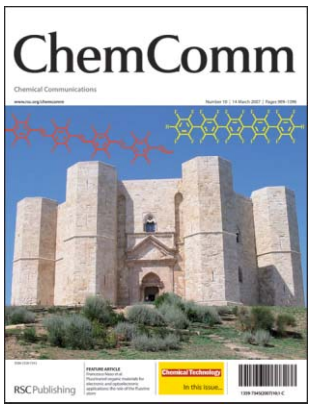
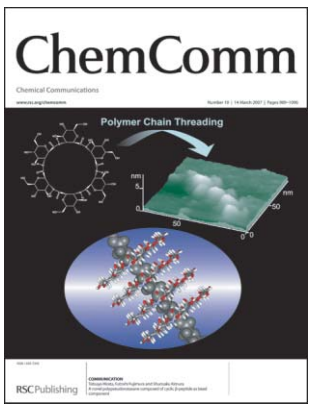


Cover
See Francesco Naso *et al.*, page 1003. The image shows the structures of durable fluorinated materials superimposed on the everlasting "Castel del Monte", a castle built by the Swabian Emperor Frederick II near Bari (Italy) in 1245. Image reproduced by permission of Francesco Babudri, Gianluca M. Farinola, Francesco Naso and Roberta Ragni, from *Chem. Commun.*, 2007, 1003.



Inside cover
See Shunsaku Kimura *et al.*, page 1023. A novel polypseudorotaxane composed of a peptide nanotube and poly(ethylene glycol) having a large dipole. Image reproduced by permission of Tatsuya Hirata, Futoshi Fujimura and Shunsaku Kimura, from *Chem. Commun.*, 2007, 1023.

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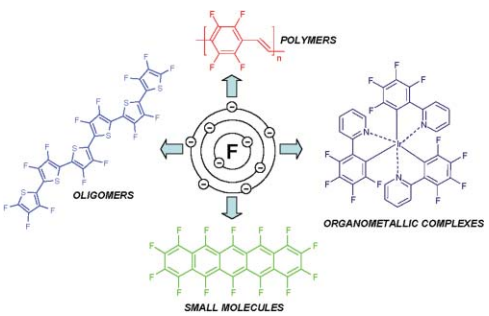
FEATURE ARTICLE



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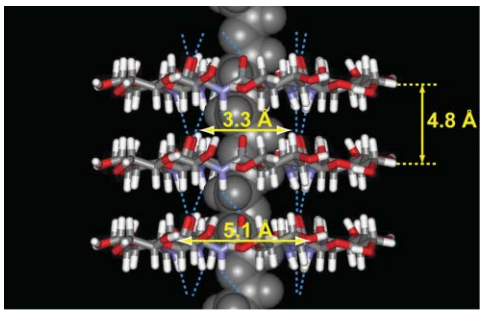

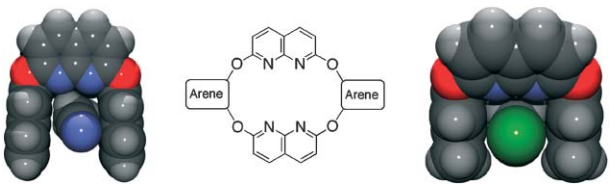

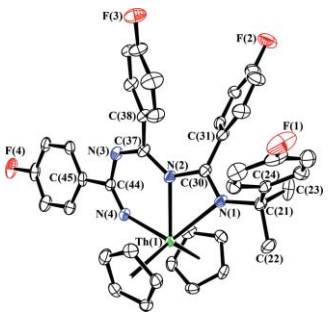

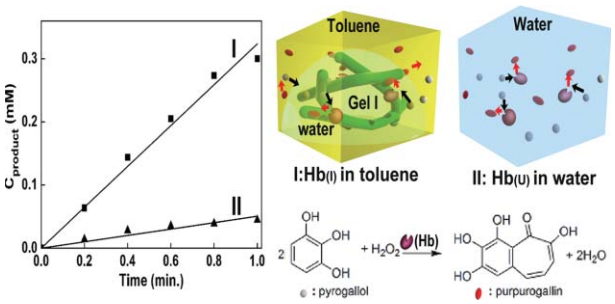

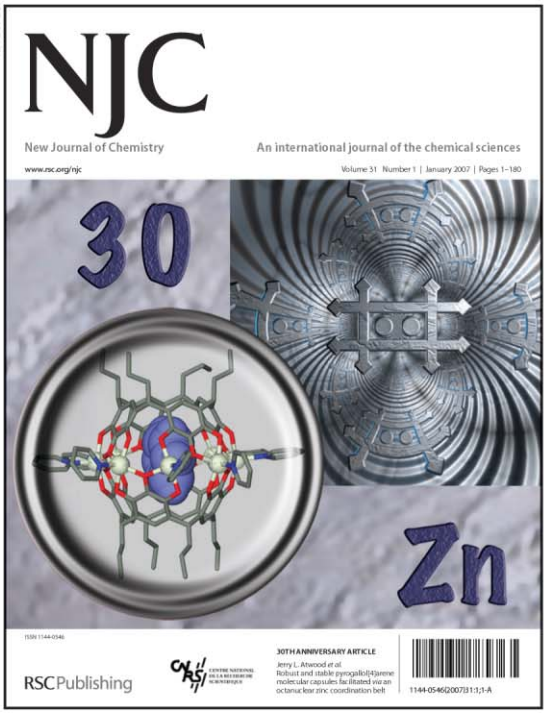

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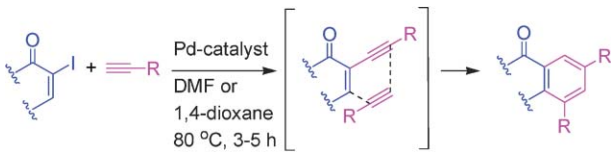
1035

Pd-mediated synthesis of substituted benzenes fused with carbocycle/heterocycle

Nalivela Kumara Swamy, Lakshmi Kumar Tatini, J. Moses Babu, Pazhanimuthu Annamalai and Manojit Pal*

The Pd-mediated coupling reaction of α-haloenone with terminal alkynes under a Cu-free condition provided a new and one-pot synthetic procedure for the construction of benzene ring fused with carbocyclic and heterocyclic structures.

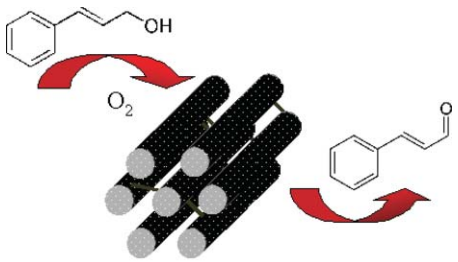


1038

Molecular level dispersed Pd clusters in the carbon walls of ordered mesoporous carbon as a highly selective alcohol oxidation catalyst

An-Hui Lu, Wen-Cui Li, Zhenshan Hou and Ferdi Schüth

Ordered mesoporous carbon containing molecular-level dispersed Pd clusters in the carbon walls was synthesized by the nanocasting pathway, and shows high selectivity for the oxidation of alcohols to aldehydes.



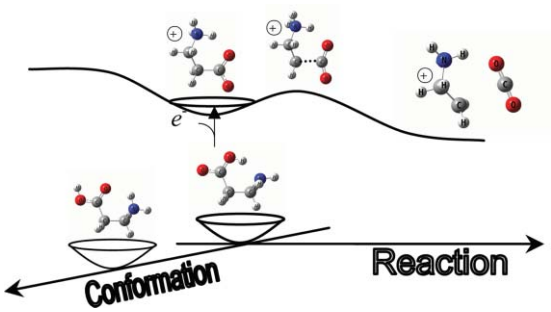
Pd-OMC

1041

A highly conformationally specific α- and β-Ala^+ decarboxylation pathway

Kyo-Won Choi, Doo-Sik Ahn, Joo-Hee Lee and Sang Kyu Kim*

A new dissociative ionization channel is found for alanine and β-alanine. This channel giving rise to CO_2 proceeds *via* highly conformer specific intramolecular hydrogen transfer.

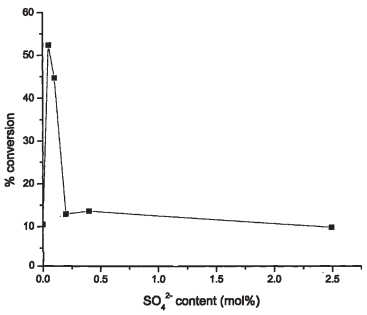


1044

Dramatic promotion of gold/titania for CO oxidation by sulfate ions

P. Mohapatra, John Moma, K. M. Parida, W. A. Jordaan and Mike S. Scurrell*

The presence of sulfate ions at very low levels dramatically increases the CO oxidation activity of gold/titania catalysts. At least some of the sulfur introduced interacts directly with the gold centres.



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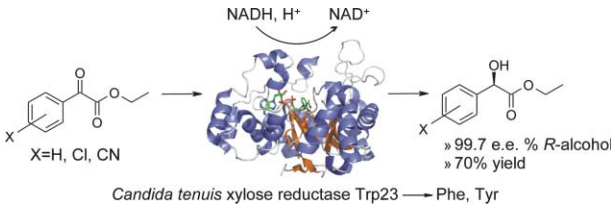

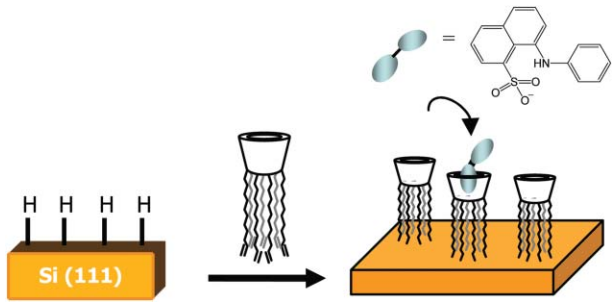

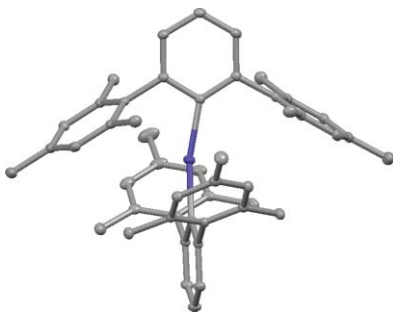

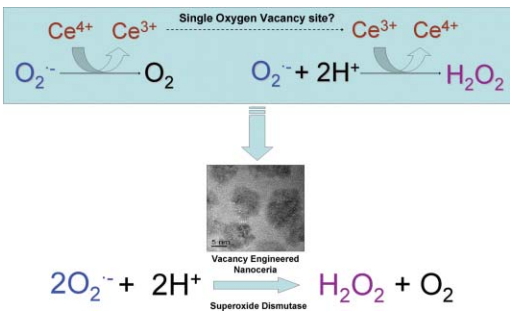

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In its February 2007 special issue *Chem Soc Rev* celebrates two landmark anniversaries in the field of Supramolecular Chemistry:

1967: Charles Pedersen's first paper on the synthesis and metal binding properties of crown ethers is published in the *Journal of the American Chemical Society*.

1987: the Nobel prize in chemistry is awarded to Charles Pedersen, Jean-Marie Lehn and Donald Cram in recognition of their pioneering work in Supramolecular Chemistry.

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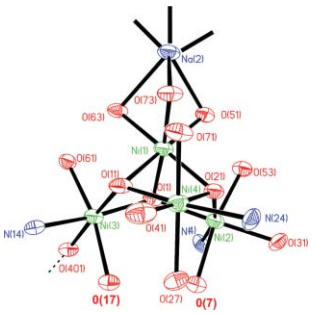

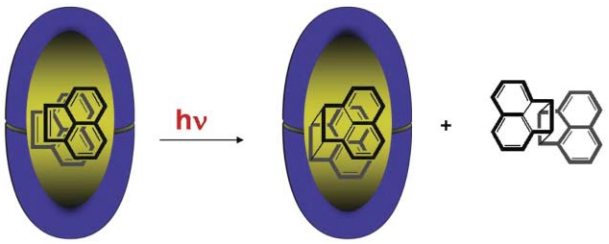

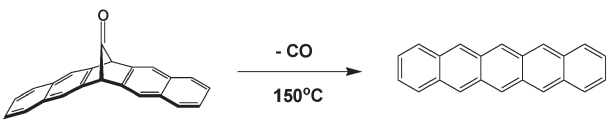

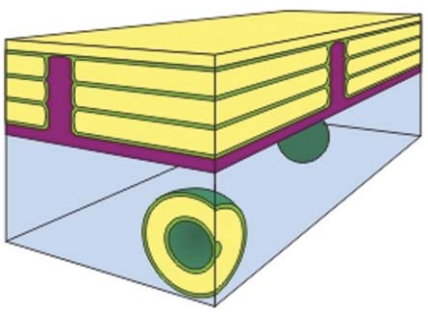

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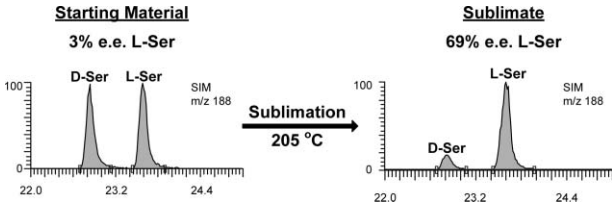
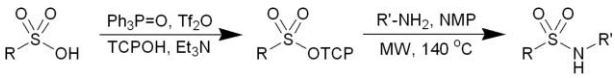


Serine sublimes with spontaneous chiral amplification

Richard H. Perry, Chunping Wu, Marcela Nefliu and R. Graham Cooks*

Sublimation of near-racemic samples of serine (Ser) yields a sublimate which is highly enriched in the major enantiomer. This simple one-step process occurs under relatively mild conditions, and represents a possible mechanism for the chiral amplification step in homochirogenesis.

1074

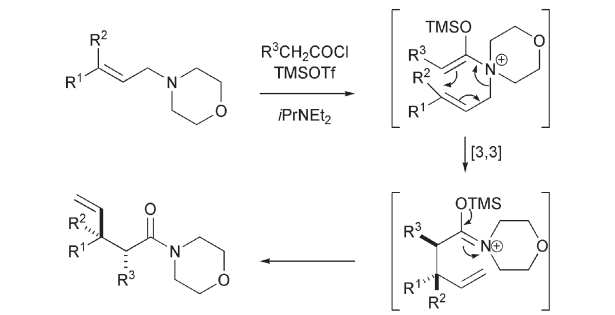


Trichlorophenol (TCP) sulfonate esters: A selective alternative to pentafluorophenol (PFP) esters and sulfonyl chlorides for the preparation of sulfonamides

Jonathan D. Wilden,* Lynsey Geldeard, Chieh C. Lee, Duncan B. Judd and Stephen Caddick*

2,4,6-Trichlorophenol (TCP) sulfonate esters are an effective replacement for PFP-sulfonates and sulfonyl chlorides. They undergo microwave enhanced aminolysis, but are less reactive than PFP-sulfonate esters, allowing chemoselective aminolysis of the PFP-sulfonates in the presence of TCP-sulfonates.

1077

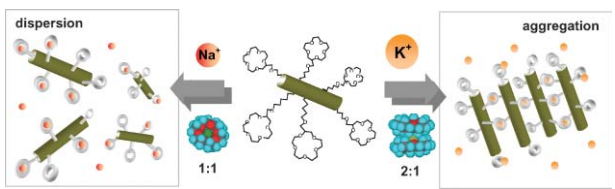


Silyl-modified Belluš–Claisen rearrangement

Donald Craig,* N. Paul King and David M. Mountford

A silyl-modified, metal-free Lewis acid-assisted Belluš–Claisen reaction is described; the generality of the rearrangement is demonstrated with a range of allylic amines and ketenes.

1080



Anisotropic assembly of gold nanorods assisted by selective ion recognition of surface-anchored crown ether derivatives

Hiroshi Nakashima,* Kazuaki Furukawa, Yoshiaki Kashimura and Keiichi Torimitsu

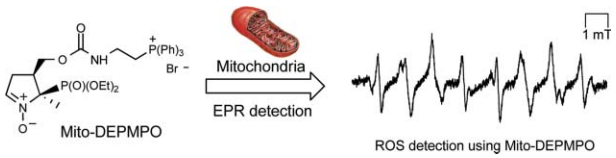
A complex of gold nanorods with crown ethers recognised ions selectively in response to dispersion and aggregation; the preferential end-to-end or side-to-side assembly of nanorods was observed in the aggregates.

1083

Mito-DEPMPO synthesized from a novel NH_2-reactive DEPMPO spin trap: a new and improved trap for the detection of superoxide

Micael Hardy, Florence Chalier, Olivier Ouari, Jean-Pierre Finet, Antal Rockenbauer, Balaraman Kalyanaraman and Paul Tordo*

The half-life of the Mito-DEPMPO superoxide adduct was estimated to be *ca.* 40 min. Using Mito-DEPMPO, reactive oxygen species generated in intact mitochondria were detected and characterized by EPR.

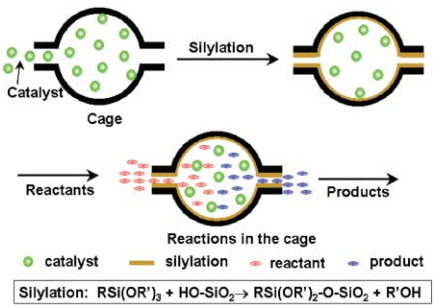


1086

Asymmetric reactions on chiral catalysts entrapped within a mesoporous cage

Hengquan Yang, Jun Li, Jie Yang, Zhimin Liu, Qihua Yang* and Can Li*

The encapsulation of homogeneous chiral catalysts, *e.g.* Co(Salen) and Ru-TsDPEN, in the mesoporous cage of SBA-16 is demonstrated; the encapsulated catalysts show performance as good as that of the homogeneous catalysts, and can be recycled for more than 10 times without significant loss of catalytic performance.

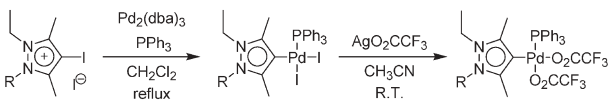


1089

Preparation and characterization of the first pyrazole-based remote N-heterocyclic carbene complexes of palladium(II)

Yuan Han and Han Vinh Huynh*

The first pyrazolin-4-ylidene complexes of palladium(II) have been synthesized by oxidative addition of 4-iodopyrazolium salts to $Pd_2(dba)_3/PPh_3$ and were fully characterized by multinuclear NMR spectroscopies, ESI mass spectrometry and X-ray diffraction studies.

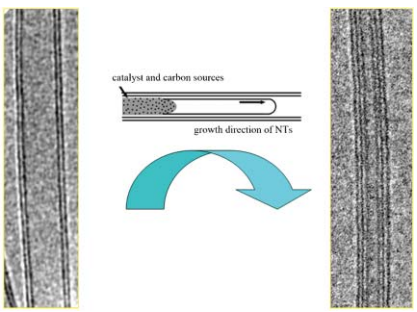


1092

Controllable preparation of triple-walled carbon nanotubes and their growth mechanism

Hanxun Qiu, Zujin Shi,* Zhennan Gu and Jieshan Qiu*

Triple-walled carbon nanotubes (TWNTs) have been selectively synthesized for the first time from decomposition of ferrocene encapsulated in double-walled carbon nanotubes (DWNTs), demonstrating a base-growth mechanism for carbon nanotubes.



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