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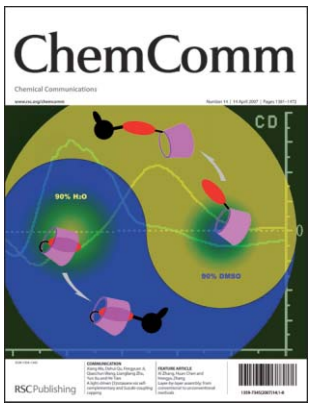
IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS (14) 1381–1472 (2007)



Cover

See He Tian *et al.*, page 1409. Azobenzene modified β-CD forms different conformations in 10% and 90% DMSO aqueous solution to prepare [1]rotaxane and its non-inclusion reference compound, respectively. Image reproduced by permission of Xiang Ma, Dahui Qu, Fengyuan Ji, Qiaochun Wang, Liangliang Zhu, Yun Xu and He Tian from *Chem. Commun.*, 2007, 1409.

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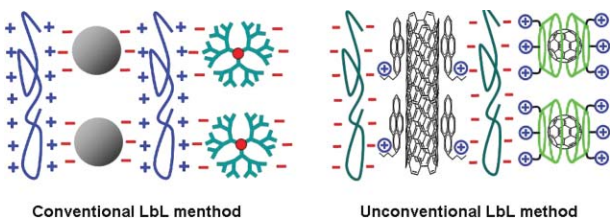

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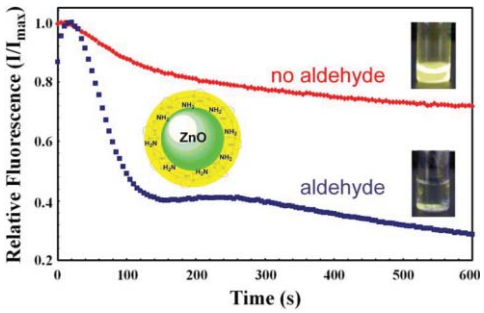

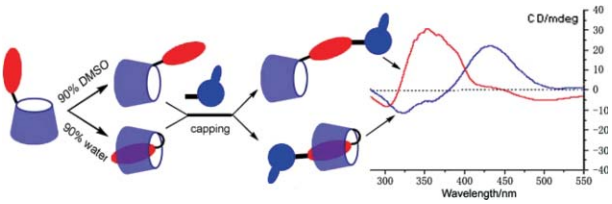

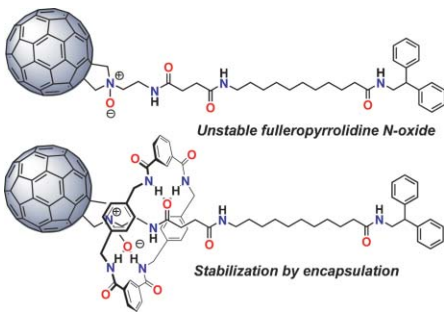

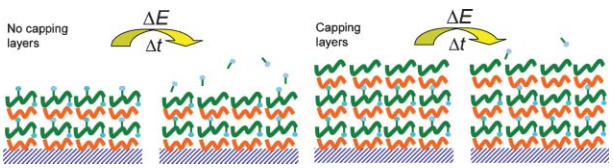

Top tips for better chips

Chips & Tips is a new online resource from **Lab on a Chip**, discussing common problems encountered in the field of miniaturisation and microfabrication. Whether you want to learn the tricks of the trade or post your own tip, Chips & Tips is the place for you.

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David T. Eddington

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Vacuum filling of microfluidic devices, a simple method to remove bubbles when filling chips
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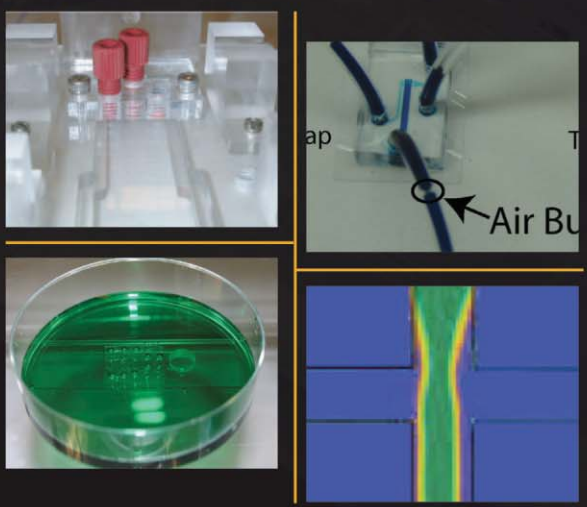

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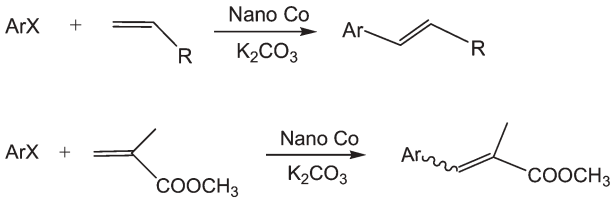
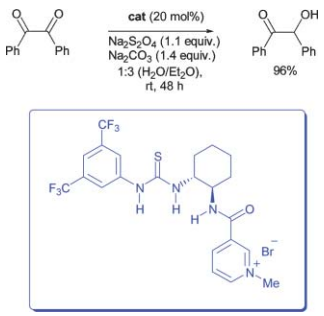
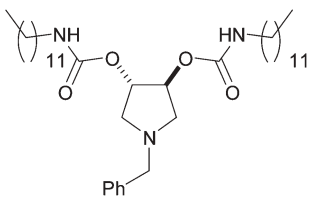
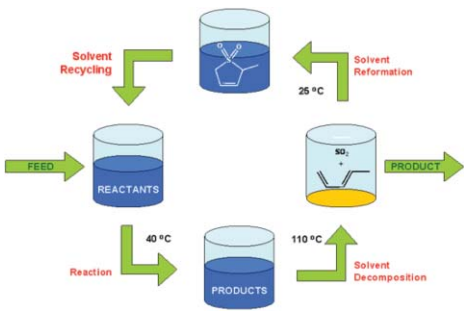
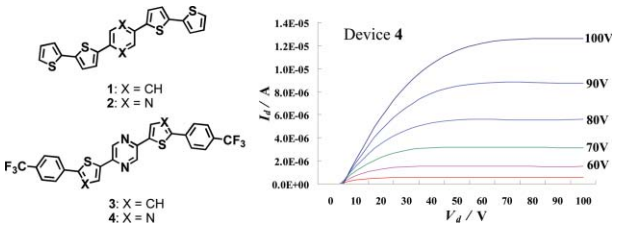








1430

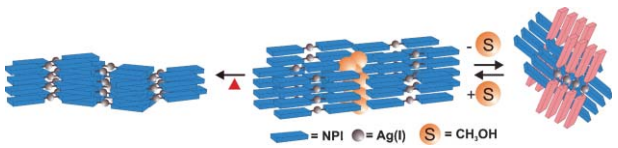


Organic field-effect transistors based on heterocyclic co-oligomers containing a pyrazine ring

Takahiro Kojima, Jun-ichi Nishida, Shizuo Tokito, Hirokazu Tada and Yoshiro Yamashita*

New oligomers containing a pyrazine unit have been prepared. The bithienyl derivatives afforded p-type FET devices whereas the trifluoromethylphenyl derivatives showed n-type FET behavior.

1433

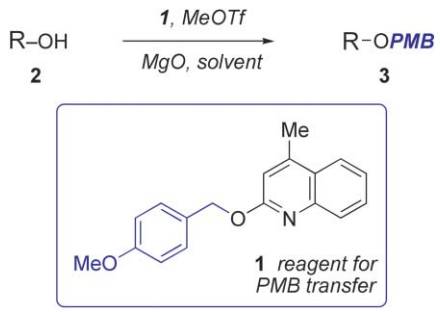


Single-crystal to single-crystal phase transitions of bis(*N*-phenylisonicotinamide)silver(I) nitrate reveal cooperativity properties in porous molecular materials

Partha S. Mukherjee, Nazario Lopez, Atta M. Arif, Francisco Cervantes-Lee and Juan C. Noveron*

The crystal structure of a silver complex that comprises solvent-filled pores of 8 Å undergoes two distinct single-crystal to single-crystal phase transitions induced by vacuum and heat.

1436

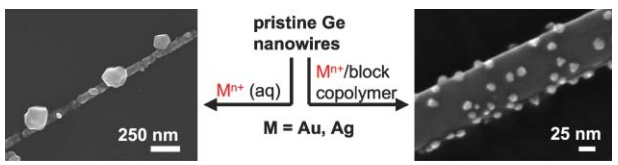


Synthesis of *para*-methoxybenzyl (PMB) ethers under neutral conditions

Ernest O. Nwoye and Gregory B. Dudley*

2-(4-Methoxybenzyloxy)-4-methylquinoline (**1**) reacts with methyl triflate in the presence of alcohols to generate a neutral organic salt that transfers the *p*-methoxybenzyl (PMB) protecting group onto alcohols in high yield. Quinoline **1** is prepared in one step from 2-chlorolepidine.

1438



Block copolymer mediated deposition of metal nanoparticles on germanium nanowires

Jiguang Zhang, Yuan Gao, Tobias Hanrath, Brian A. Korgel and Jillian M. Buriak*

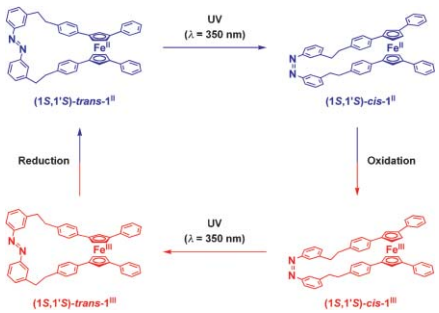
Single crystal germanium nanowires are functionalized with gold and silver nanoparticles *via* galvanic displacement. Through the use of block copolymers, regular and reproducible deposition can be achieved.

1441

Reversible operation of chiral molecular scissors by redox and UV light

Takahiro Muraoka, Kazushi Kinbara* and Takuzo Aida*

Upon changing the oxidation state, a reversible open–close motion of chiral molecular scissors, composed of a redox-active ferrocene pivot and an isomerizable azobenzene strap, can be realized only by UV light.

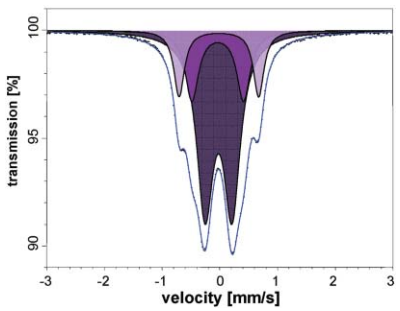


1444

^{57}Fe Mössbauer spectroscopy predicts superstructure for $K_{0.08}[Cu^{II}(N,N'app)Cl]_2[Fe^{III}(CN)_6]\cdot 0.92H_3O\cdot 3H_2O$

Uday Mukhopadhyay, C. Matthias Grunert, Joachim Kusz, Sergey Reiman, P. Gütlich* and Ivan Bernal*

The crystal structure of $K_{0.08}[Cu^{II}(N,N'app)Cl]_2[Fe^{III}(CN)_6]\cdot 0.92H_3O\cdot 3H_2O$, where N,N′app is bis(*N*,*N*′-3-aminopropyl-piperazine), was determined by single crystal X-ray diffraction (CCD) at five temperatures. Its ^{57}Fe Mössbauer spectra showed three quadrupole doublets typical of Fe(III) low spin species which call for a superstructure, verified by the X-ray studies.

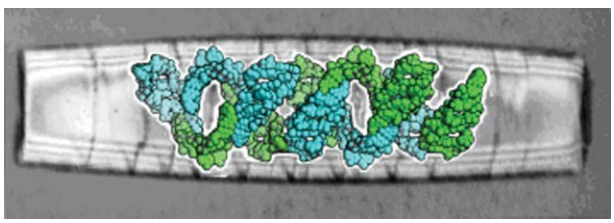


1447

A left-handed supramolecular assembly around a right-handed screw axis in the crystal structure of homo-DNA

Pradeep S. Pallan, Paolo Lubini and Martin Egli*

The crystal structure of homo-DNA ((4′ → 6′)-linked oligo(2′,3′-dideoxy-β-D-glucopyranosyl)nucleotide) revealed formation of a left-handed superhelix with an underlying right-handed crystallographic symmetry, thus providing further demonstration of the versatility of nucleic acids as construction materials for supramolecular assemblies and an inspiration for crystal engineering.

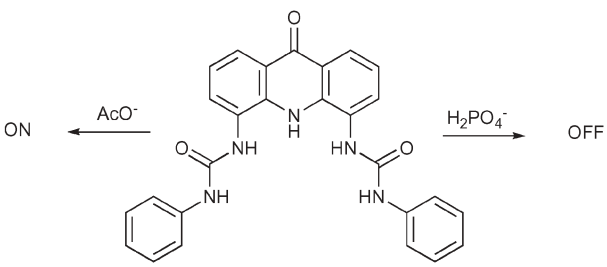


1450

Acridinone-based anion receptors and sensors

Sergio E. García-Garrido, Claudia Caltagirone, Mark E. Light and Philip A. Gale*

The interaction of a variety of acridinone derivatives containing hydrogen-bond donor groups in the 4- and 5-positions with anions demonstrate the potential of this new scaffold in anion receptor and sensor design.



Fluorescence of hydrogen-bond functionalised acridinones

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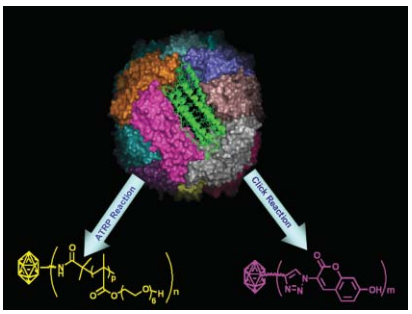
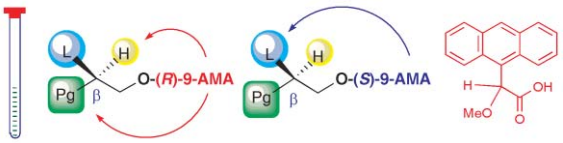
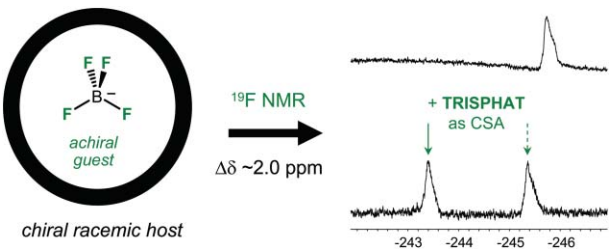
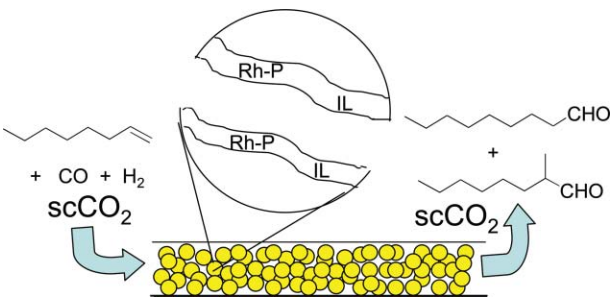
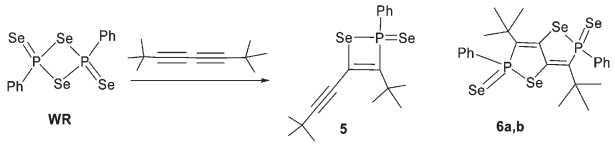








1465

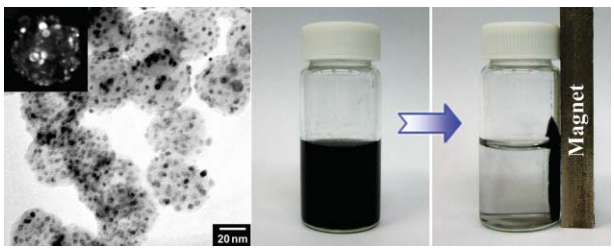


Unexpected four- and eight-membered organo P–Se heterocycles

Guoxiong Hua, Yang Li, Alexandra M. Z. Slawin and J. Derek Woollins*

New organo-phosphorus–selenium heterocycles have been prepared and characterised crystallographically.

1468



Nitrogen-doped magnetic carbon nanoparticles as catalyst supports for efficient recovery and recycling

Hyeonseok Yoon, Sungrok Ko and Jyongsik Jang*

Palladium nanoparticles were deposited with high dispersion and stability on nitrogen-doped magnetic carbon nanoparticles by a simple impregnation method, and their catalytic performance was investigated for Heck, Suzuki, and Sonogashira coupling reactions.

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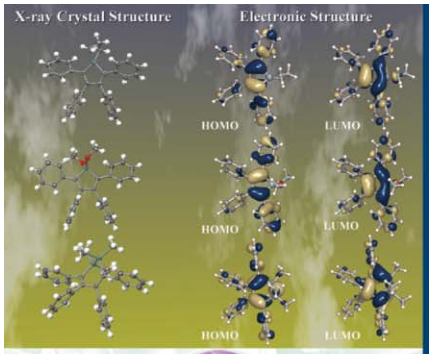

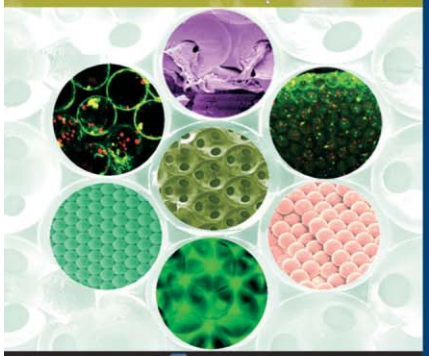

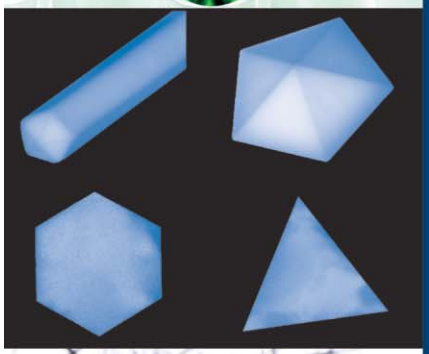

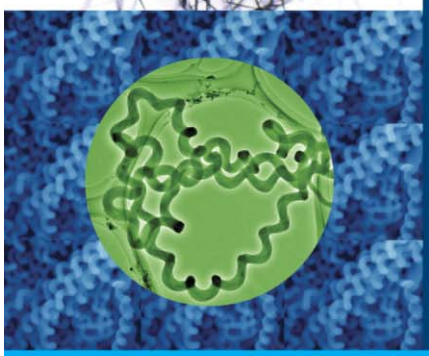

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