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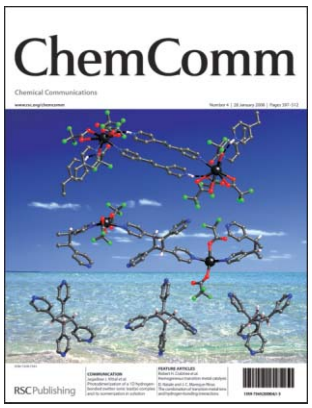
ISSN 1359-7345 CODEN CHCOFS (4) 397–512 (2008)



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See Jagadese J. Vittal *et al.*, pp. 441–443.
A cyclobutane ring formed from the solid-state photochemical cycloaddition of an hydrogen-bonded zwitter-ionic Pb(II) complex is found to isomerize in solution. Image reproduced by permission of Abdul Malik Puthan Peedikakkal, Lip L. Koh and Jagadese J. Vittal from *Chem. Commun.*, 2008, 441.

Inside cover
See Jian Zhang and Xianhui Bu, pp. 444–446.
The charge separation in 3-D homochiral cadmium camphorates is favoured at room temperature and becomes progressively smaller with increasing reaction temperature.
Image reproduced by permission of Jian Zhang and Xianhui Bu from *Chem. Commun.*, 2008, 444.

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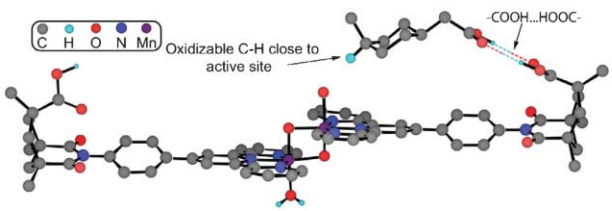

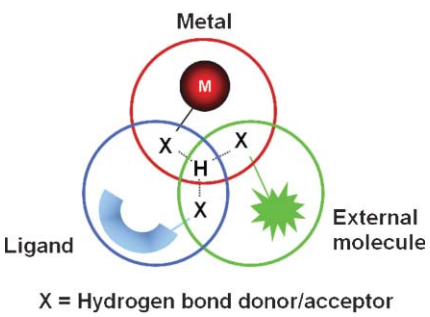

Chemical Communications (print: ISSN 1359-7345; electronic: ISSN 1364-548X) is published 48 times a year by the Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, UK CB4 0WF. All orders, with cheques made payable to the Royal Society of Chemistry, should be sent to RSC Distribution Services, c/o Portland Customer Services, Commerce Way, Colchester, Essex, UK CO2 8HP. Tel +44 (0)1206 226050; E-mail sales@rscdistribution.org

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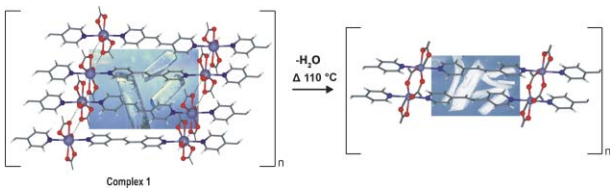

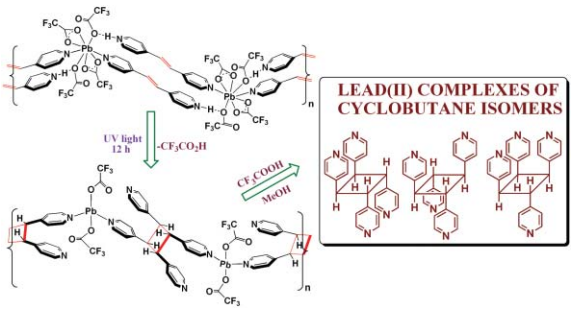

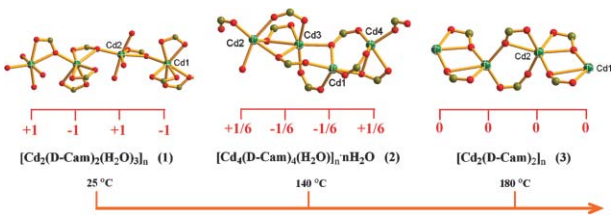

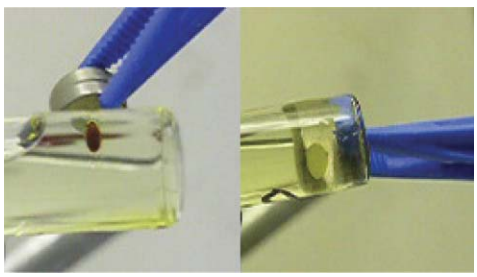

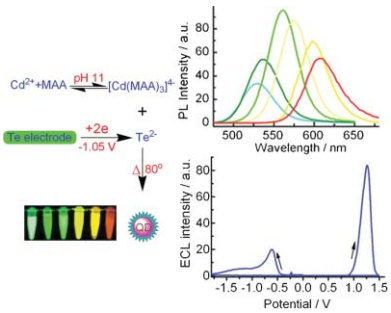

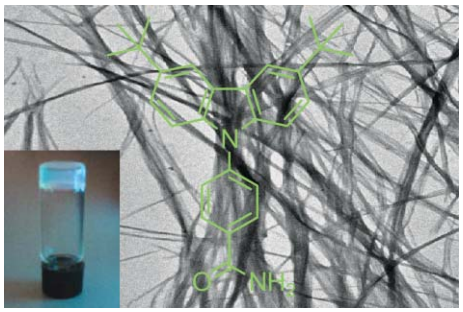

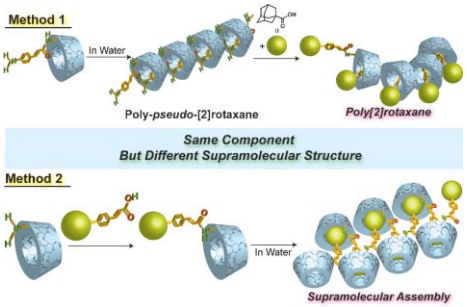

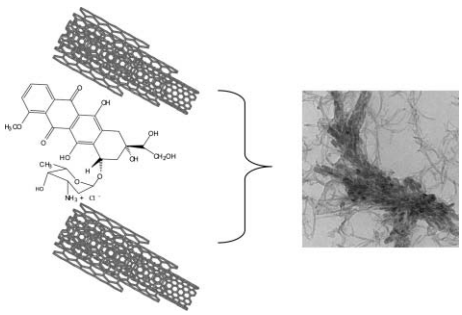

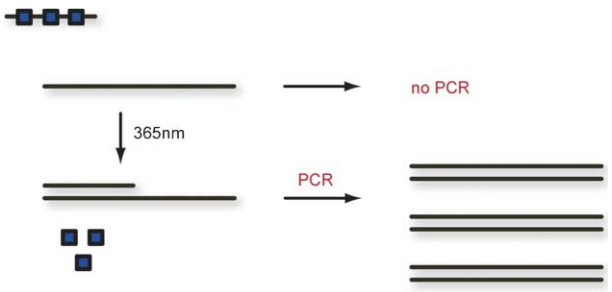

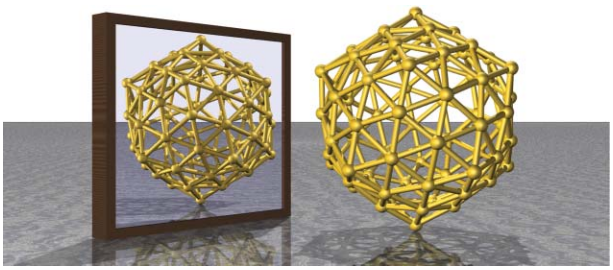

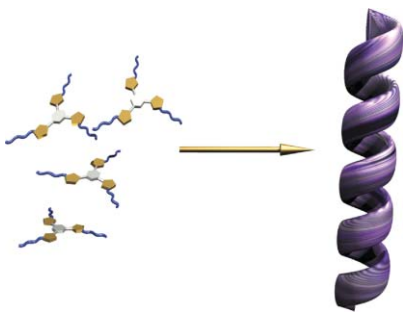

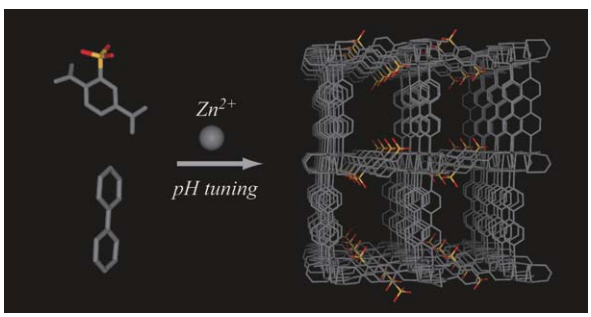

A decade shedding light on crystal engineering

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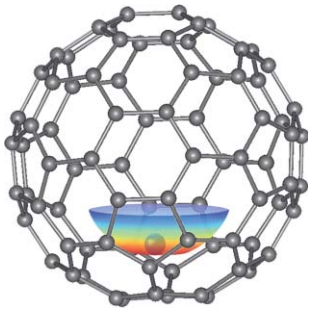
The structural determination of endohedral metallofullerene Gd@C_{82} by XANES

Lei Liu, Bin Gao, Wangsheng Chu, Dongliang Chen, Tiandou Hu, Chunru Wang, Lothar Dunsch, Augusto Marcelli, Yi Luo and Ziyu Wu*

Although the Gd ion in Gd@C_{82} has been shown to lie above the C–C bond on the C_2 axis as an anomalous structure from the MEM/Rietveld analysis, the present XANES study reveals that it lies above the hexagon on the C_2 axis as a normal structure, and Gd oscillates around its equilibrium position.



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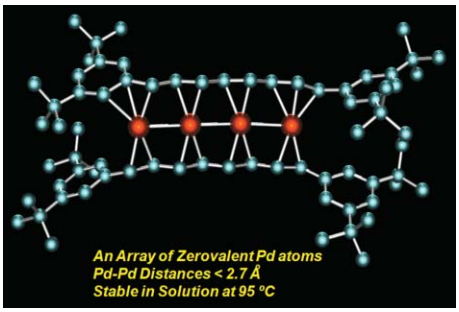
A stable zerovalent palladium chain enveloped by a π-electron sheath of conjugated polyene ligands

Yasuki Tatsumi, Tetsuro Murahashi,* Mitsue Okada, Sensuke Ogoshi and Hideo Kurosawa

A surprisingly stable homoleptic $Pd(0)_4$ chain complex of non-activated olefins was isolated and structurally characterized by X-ray crystallographic analysis. The unique structure and bonding are compared to those of the corresponding dicationic $[Pd_4]^{2+}$ chain sandwich complex.



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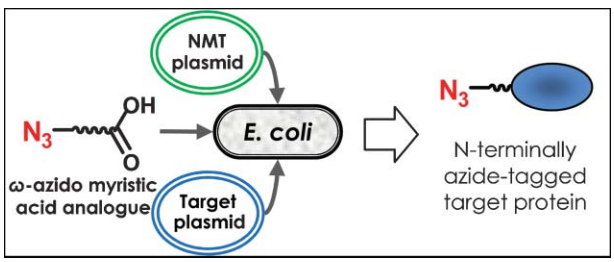
Site-specific N-terminal labelling of proteins *in vitro* and *in vivo* using *N*-myristoyl transferase and bioorthogonal ligation chemistry

William P. Heal, Sasala R. Wickramasinghe, Paul W. Bowyer, Anthony A. Holder, Deborah F. Smith, Robin J. Leatherbarrow* and Edward W. Tate*

N-Myristoyl transferase-mediated protein labelling with azide-bearing substrates: a highly selective and practical method for *in vitro* and *in vivo* N-terminal labelling of proteins using bioorthogonal ligation chemistry.



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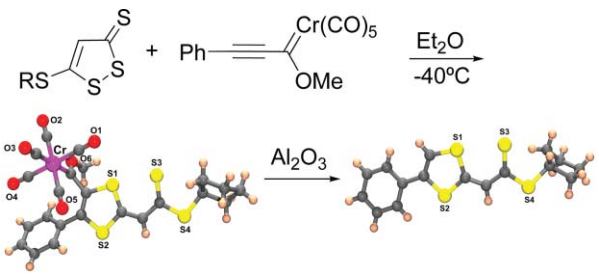
Alkynyl Fischer carbene complex as a traceless directing group for the regioselective cycloaddition of dithiolethiones to arylacetylene: synthesis of *E*-dithiafulvene thione and dithioesters

Alejandro M. Granados,* Alejandro M. Fracaroli, Rita H. de Rossi, Pedro Fuertes and Tomás Torroba*

A phenylethynyl Fischer carbene complex was used as a traceless directing group for the regioselective cycloaddition of dithiolethiones to arylacetylene, which constitutes the first synthesis of *E*-dithiafulvene thione or dithioesters.



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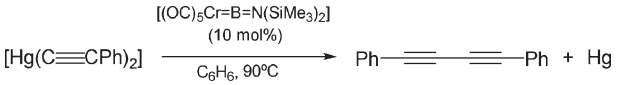
Group VI metal aminoborylene complex-catalyzed demercuration reactions of bis(alkynyl)mercurials

Leonardo Apostolico, Holger Braunschweig,* Andrew G. Crawford, Thomas Herbst and Daniela Rais

The aminoborylene complex-catalyzed demercuration of $[Hg(C{\equiv}CR)_2]$ represents the very first catalytic application of borylene complexes, and the first instance in which a transition metal complex with a direct metal–boron bond participates in a catalytic cycle without transfer of the boron-based ligand to a substrate.



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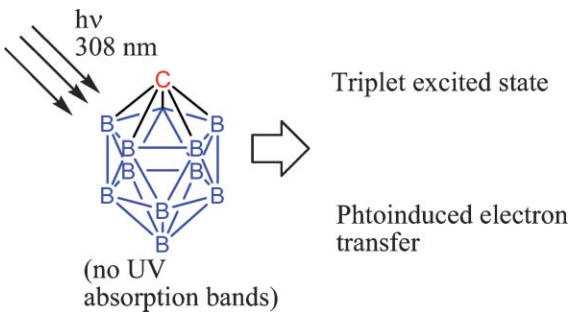
Unexpected photochemistry and charge-transfer complexes of $[CB_{11}H_{12}]^-$ carborane

Francesc X. Llabrés i Xamena, Laura Teruel, María S. Galletero, Avelino Corma* and Hermenegildo García*

The triplet excited state of $Cs[CB_{11}H_{12}]$ has been characterized. Also the charge transfer complex of carborane and methylviologen gives rise to photoinduced electron transfer.



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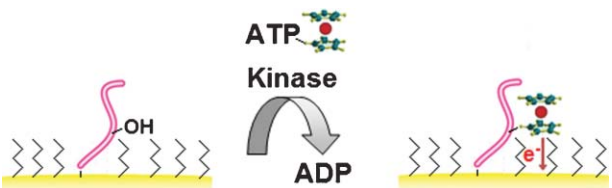
Electrochemical detection of kinase-catalyzed phosphorylation using ferrocene-conjugated ATP

Haifeng Song, Kagan Kerman and Heinz-Bernhard Kraatz*

Adenosine-5′-[γ-ferrocene] triphosphate is exploited as a co-substrate for the kinase-catalyzed phosphorylation of a surface-immobilized substrate peptide, in which the γ-ferrocene phosphate is transferred to the peptide and then detected using electrochemical techniques.



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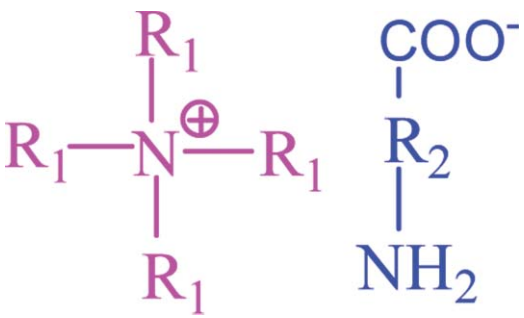
Tetraalkylammonium amino acids as functionalized ionic liquids of low viscosity

Ying-Ying Jiang, Guan-Nan Wang, Zheng Zhou, You-Ting Wu,* Jiao Geng and Zhi-Bing Zhang

Four of nine tetraalkylammonium-based amino-acid ionic liquids (AAILs) prepared in this work show lower viscosities than all previously reported AAILs and their reversible CO_2 absorption approaches 0.5 mol per mol ionic liquid.



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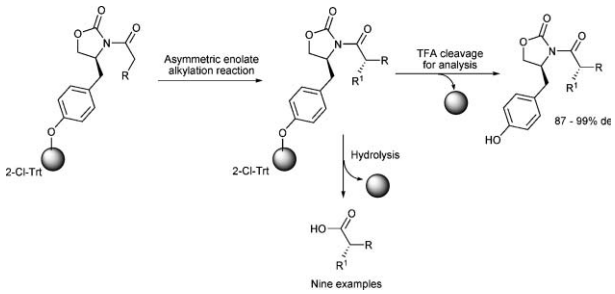

A cleavable linker strategy for optimising enolate alkylation reactions of a polymer-supported Evans' oxazolidin-2-one

Rachel Green, Andrew T. Merritt and Steven D. Bull*

A cleavable linker strategy has been used to optimise the enolate alkylation reactions of a recyclable L-tyrosine derived polymer-supported oxazolidin-2-one for the asymmetric synthesis of a series of chiral α-alkyl acids.

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