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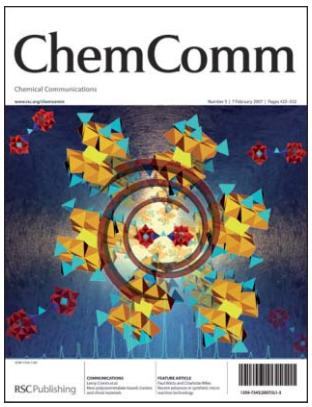
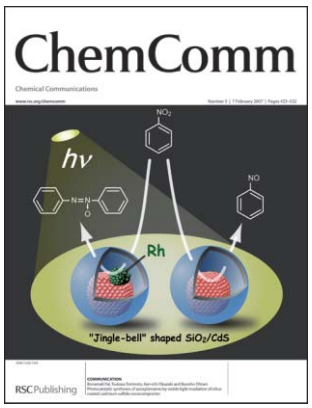


Cover

See Leroy Cronin *et al.*, pages 468 and 471. A hybrid image showing that self assembly has been used to construct new polyoxometalate (POM)-based clusters and chiral POM-based materials demonstrating that POMs have great potential as scalable building blocks. Image reproduced by permission of Chris Ritchie, Eric M. Burkholder, De-Liang Long, David Adam, Paul Kögerler, Carsten Streb and Leroy Cronin, from *Chem. Commun.*, 2007, 468 and 471.



Inside cover

See Tsukasa Torimoto *et al.*, page 483. The selectivity of products formed by the photocatalytic reduction of nitrobenzene can be tuned by changing the nanostructure of jingle-bell-shaped semiconductor nanocomposite particles. Image reproduced by permission of Bonamali Pal, Tsukasa Torimoto, Ken-ichi Okazaki and Bunsho Ohtani, from *Chem. Commun.*, 2007, 483.

CHEMICAL BIOLOGY

B9

Drawing together research highlights and news from all RSC publications, *Chemical Biology* provides a 'snapshot' of the latest developments in chemical biology, showcasing newsworthy articles and significant scientific advances.

Chemical Biology

February 2007/Volume 2/Issue 2

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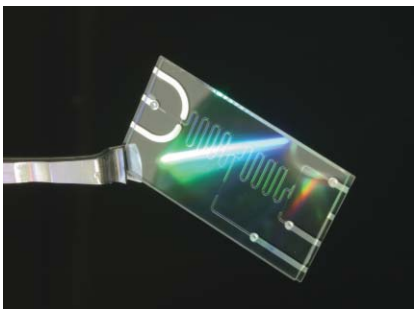
FEATURE ARTICLE



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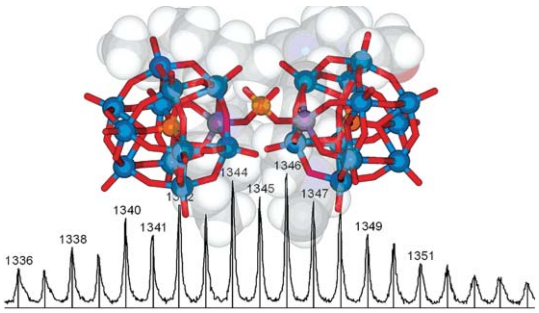

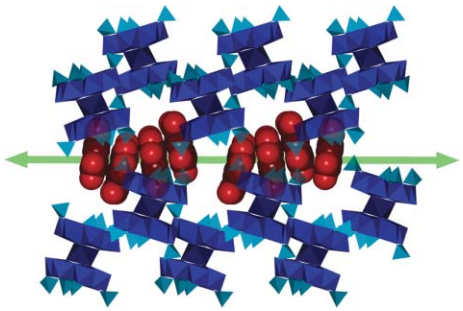

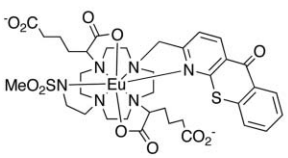

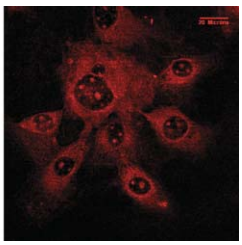

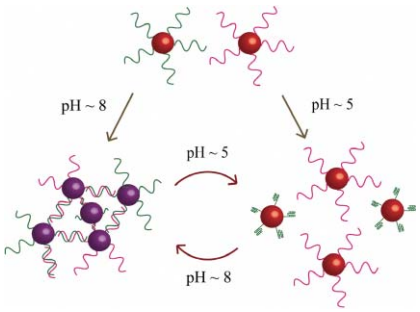

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Organizers: Sarah Spiegel, Alfred H. Merrill and H. Alex Brown
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Sagebrush Inn and Conference Center • Taos, New Mexico
www.keystonesymposia.org/C2

Imaging Immune Responses
Organizers: Ronald N. Germain and Ellen A. Robey
February 25 - March 1, 2007
Keystone Resort • Keystone, Colorado
www.keystonesymposia.org/J7

Systems Biology and Regulatory Networks
Organizers: Michael Snyder and Erin K. O'Shea
March 22 - 27, 2007
Sheraton Steamboat Resort • Steamboat Springs, Colorado
www.keystonesymposia.org/X5

Cell Signaling and Proteomics
Organizers: John R. Yates III, Steven P. Gygi and Lewis C. Cantley
March 22 - 27, 2007
Sheraton Steamboat Resort • Steamboat Springs, Colorado
www.keystonesymposia.org/X6

Epigenetics: Regulation of Chromatin Structure in Development and Disease
Organizers: Barbara Panning and Hiten D. Madhani
April 11 - 16, 2007
Beaver Run Resort • Breckenridge, Colorado
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Tissue Engineering and Development Biology
Organizers: Gordana V. Vunjak-Novakovic, Randall T. Moon and David Kaplan
April 12 - 17, 2007
Snowbird Resort • Snowbird, Utah
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Eicosanoids and Other Mediators of Chronic Inflammation
Organizers: Roy J. Soberman, Garret A. FitzGerald and Bart N. Lambrecht
January 7 - 12, 2008
Big Sky Resort • Big Sky,Montana
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Molecular Basis for Biological Membrane Organization
Organizers: Kai Simons, Ira Mellman and Petra Schwille
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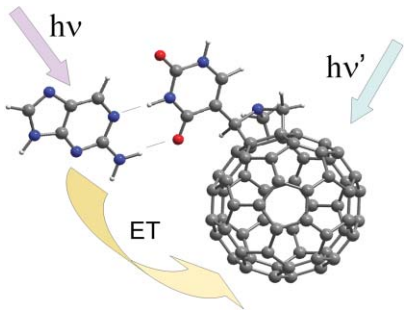

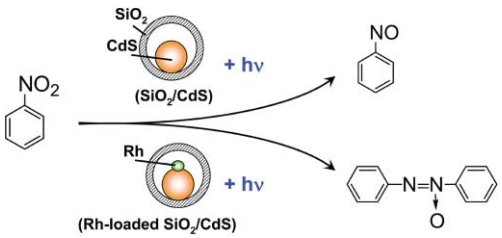

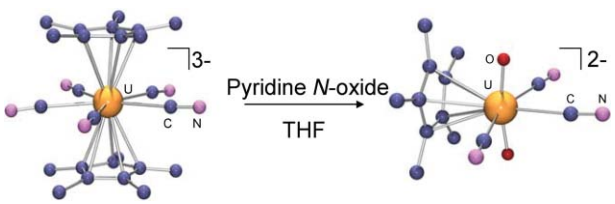

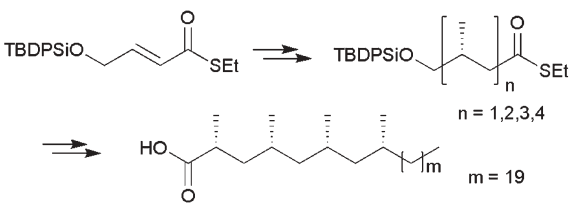

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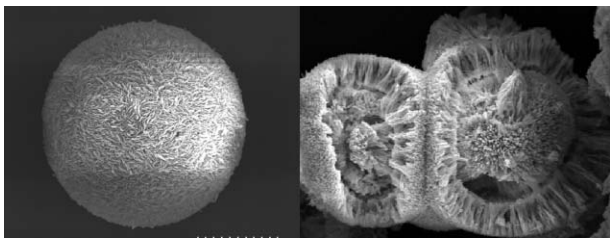
First direct-formation and properties of microspherical superstructure. Morphology of diamineplatinum(II) complexes with isonicotinate

Hye Ji Yoon, In Sung Chun, Young Mee Na, Young-A Lee and Ok-Sang Jung*

Uniform microspheres (30 μm) of [Pt(en)(iso)(iso·HPF_6)] (iso = isonicotinate) have been formed without intentional addition of any template *via* a genuine self-assembly; the structure, morphology, and hydrogenation-catalytic activity of [Pt(en)(iso)(iso·HPF_6)] have been discussed.



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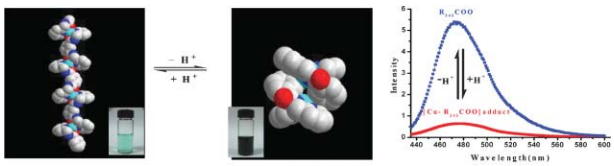
Proton-controllable fluorescent switch based on interconversion of polynuclear and dinuclear copper(II) complexes

Hsueh-Ju Liu, Yu-Hsin Hung, Chang-Chuan Chou* and Chan-Cheng Su*

The first reversible interconversion process between a one-strand polymeric copper(II) complex $\{[Cu_2(L1)_2(ClO_4)_2](ClO_4)_2\}_n$ (**1**) and a dicopper(II) helicate $[Cu_2(L1–2H)_2]$ (**2**), proceeding *via* a deprotonation–protonation process, can transduce fluorescence and function as a fluorescent switch.



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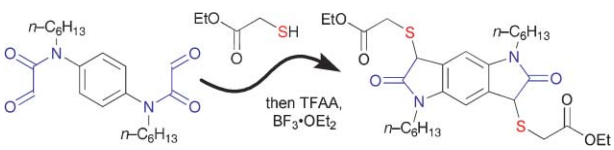
Exploring a new, connective Pummerer reaction: formation of oxindoles by the reaction of thiols with glyoxamides

Marc Miller, William Tsang, Andrew Merritt and David J. Procter*

The reaction of a range of thiols with mono- and bis-glyoxamides derived from secondary anilines, triggers a new, connective Pummerer cyclisation process and leads to the formation of oxindoles.



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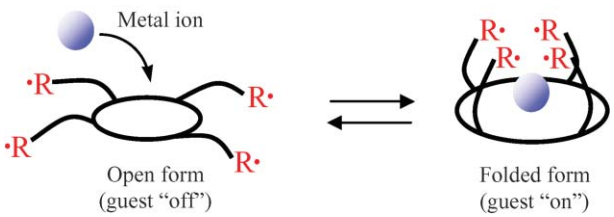
Magnetic exchange coupling tunable by means of selective cation binding into poly(radical-armed) azacrowns

Kazuki Igarashi, Takashi Nogami and Takayuki Ishida*

Host–guest complexes of tris(radical)-substituted 1,4,7-triazacyclononane and tetrakis(radical)-substituted 1,4,7,10-tetraazacyclododecane afforded the folded structures of the hosts where the radical oxygen atoms were coordinated to the guest metal ion.



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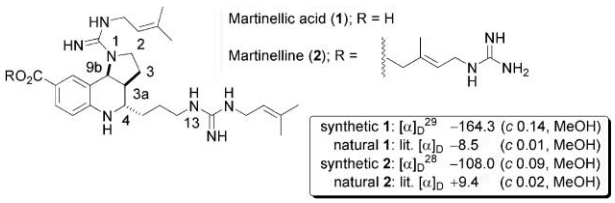
Asymmetric total synthesis of martinelline and martinellic acid

Shuhei Ikeda, Masatoshi Shibuya and Yoshiharu Iwabuchi*

The first asymmetric total synthesis of (−)-martinelline ((−)-**2**) and the second total synthesis of (−)-martinellic acid ((−)-**1**) were achieved by employing a tandem Mukaiyama–Mannich reaction/aminal cyclization as the key step.



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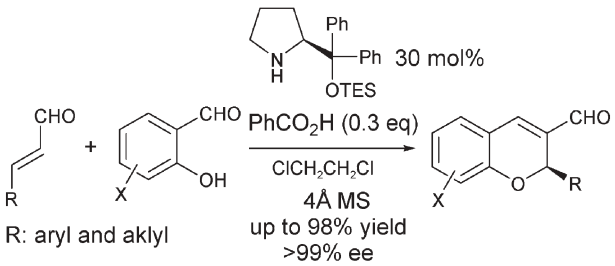
One-pot approach to chiral chromenes *via* enantioselective organocatalytic domino oxa-Michael–aldol reaction

Hao Li, Jian Wang, Timiyin E-Nunu, Liansuo Zu, Wei Jiang, Shaohua Wei* and Wei Wang*

A tandem oxa-Michael–aldol reaction of α,β-unsaturated aldehydes with salicylaldehydes, promoted by (*S*)-diphenylpyrrolinol triethylsilyl ether, has been developed. The process affords synthetically useful chromenes in high yields and high enantioselectivities.



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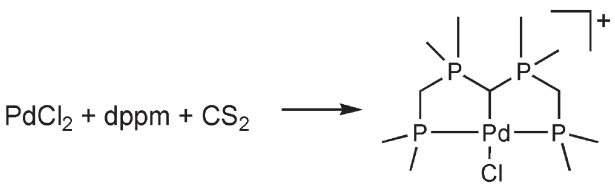
Novel route to carbodiphosphoranes producing a new P,C,P pincer carbene ligand

Silvia Stallinger, Christian Reitsamer, Walter Schuh, Holger Kopacka, Klaus Wurst and Paul Peringer*

Formation of a carbodiphosphorane from dppm and CS_2 in the coordination sphere of palladium.



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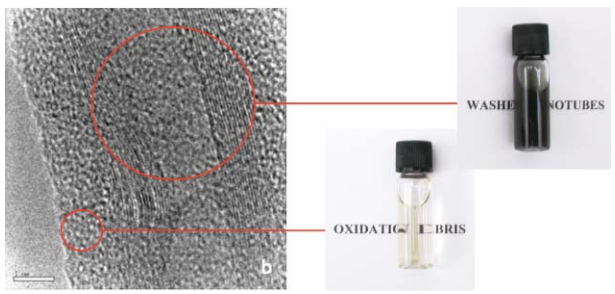
Removal of oxidation debris from multi-walled carbon nanotubes

Raquel Verdejo, Steven Lamoriniere, Ben Cottam, Alexander Bismarck and Milo Shaffer*

Conventional liquid phase oxidation of multiwall carbon nanotubes (MWCNTs) using concentrated acids generates contaminating debris that should be removed using aqueous base before further reaction.



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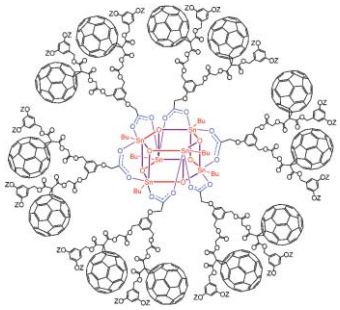

Self-assembly of fullerene-rich nanostructures with a stannoxane core

Uwe Hahn, Aline Gégout, Carine Duhayon, Yannick Coppel, Alix Saquet and Jean-François Nierengarten*

Fullerene derivatives bearing a carboxylic acid function undergo self-assembly with *n*-butylstannonic acid (*n*BuSn(O)OH) to produce fullerene-rich nanostructures with a stannoxane core in almost quantitative yields.

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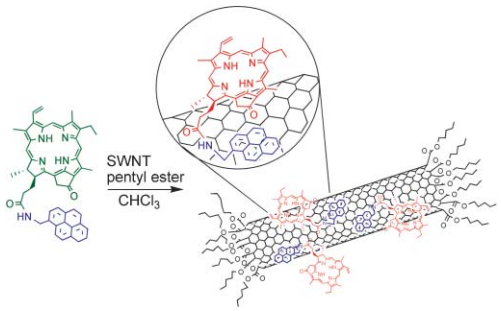

Noncovalent attachment of *pyro*-pheophorbide *a* to a carbon nanotube

Jari S. Kavakka, Sami Heikkinen, Ilkka Kilpeläinen, Marco Mattila, Harri Lipsanen and Juho Helaja*

Pyrene guided van der Waals driven attachment of tethered chlorin (a chlorophyll derivative) to soluble SWNT walls was performed with a self-assembling approach and demonstrated by ^{1}H NMR and optical spectroscopy.

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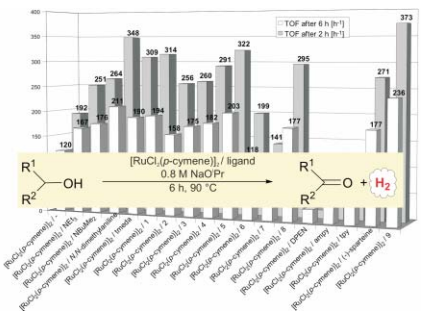

Novel improved ruthenium catalysts for the generation of hydrogen from alcohols

Henrik Junge, Björn Loges and Matthias Beller*

The dehydrogenation reaction of alcohols to generate hydrogen at ambient conditions has been studied.

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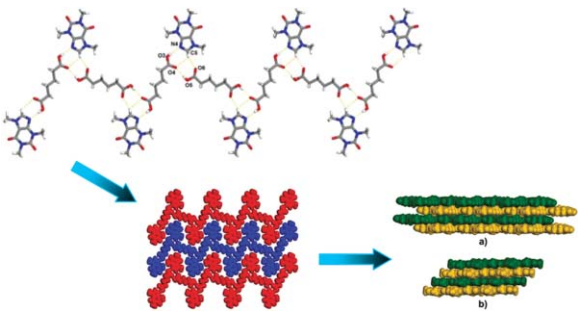
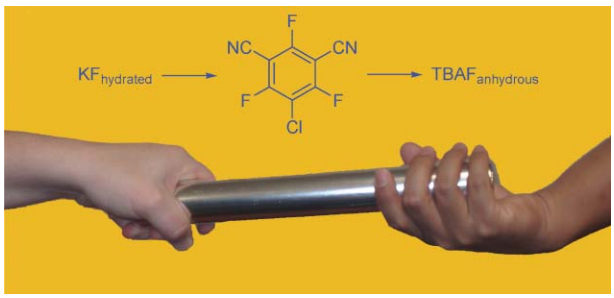


A "hidden" co-crystal of caffeine and adipic acid

Dejan-Krešimir Bučar, Rodger F. Henry, Xiaochun Lou, Thomas B. Borchardt and Geoff G. Z. Zhang*

Co-crystal formation between caffeine and adipic acid has been explored over the years without success. Utilizing the newly developed co-crystal screening method, we have finally discovered this "hidden" caffeine and adipic acid co-crystal.

COMMUNICATIONS



ADDITION AND CORRECTION

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