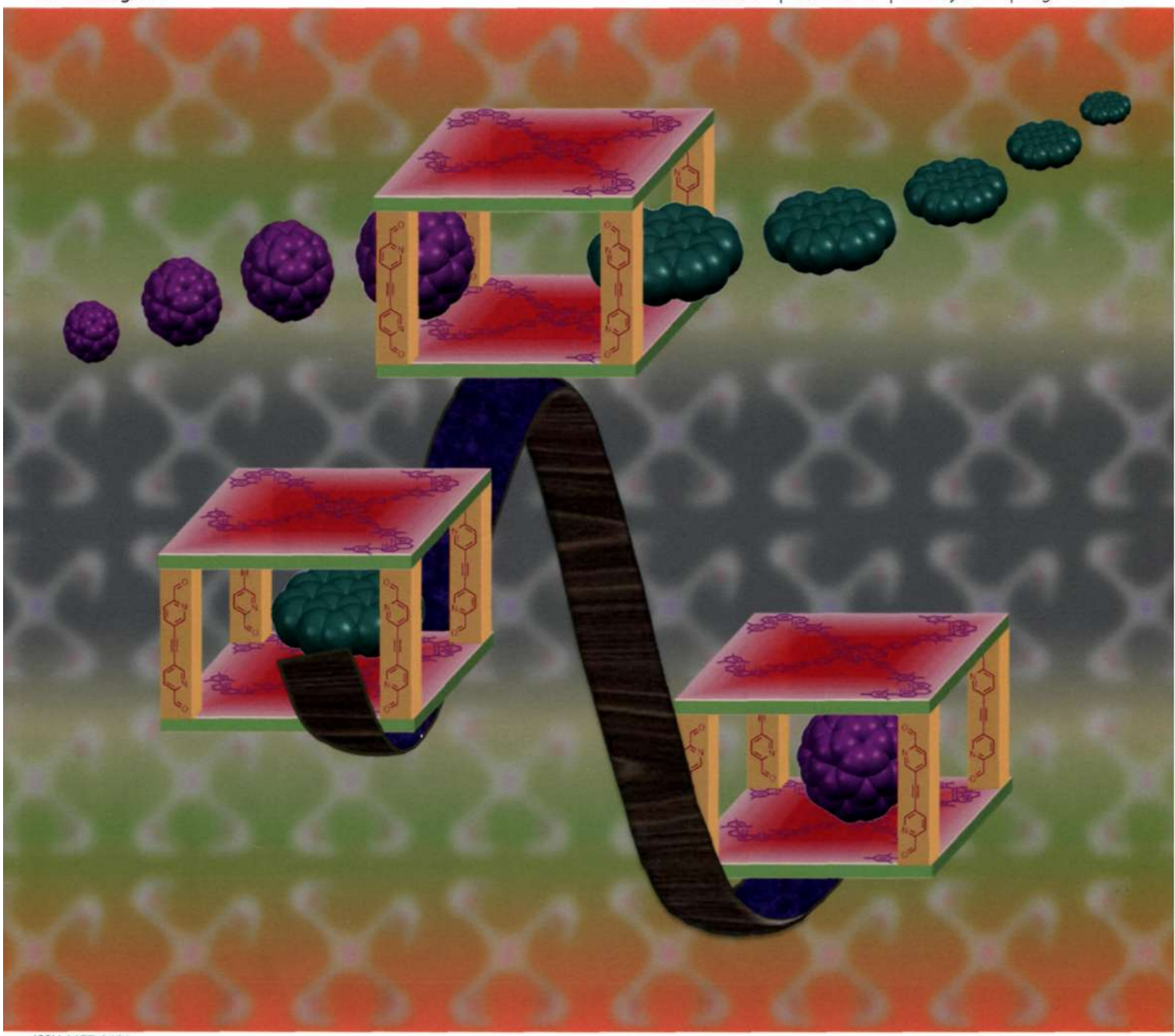
Organic & Biomolecular Chemistry

www.rsc.org/obc

Volume 11 | Number 19 | 21 May 2013 | Pages 3075–3262



ISSN 1477-0520

RSC Publishing

PAPER

Soumen K. Samanta and Michael Schmittel

Guest encapsulation and coronene–C_{60} exchange in supramolecular zinc porphyrin tweezers, grids and prisms

1477-0520(2013)11:19;1-7

Organic & Biomolecular Chemistry

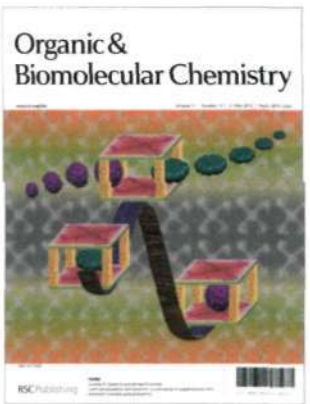
An international journal of synthetic, physical and biomolecular organic chemistry

www.rsc.org/obc

RSC Publishing is a not-for-profit publisher and a division of the Royal Society of Chemistry. Any surplus made is used to support charitable activities aimed at advancing the chemical sciences. Full details are available from www.rsc.org

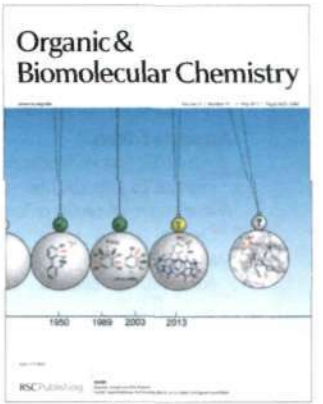
IN THIS ISSUE

ISSN 1477-0520 CODEN OBCRAK 11(19) 3075–3262 (2013)



Cover
See Soumen K. Samanta and Michael Schmittel, pp. 3108–3115.

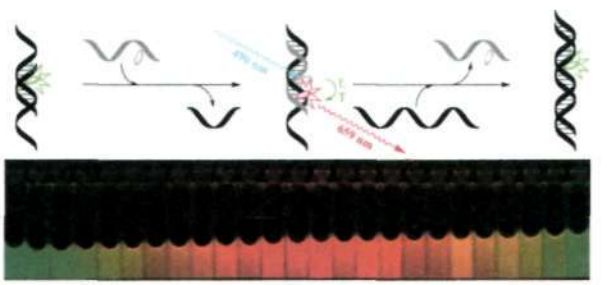
Image reproduced by permission of Michael Schmittel from *Org. Biomol. Chem.*, 2013, **11**, 3108.

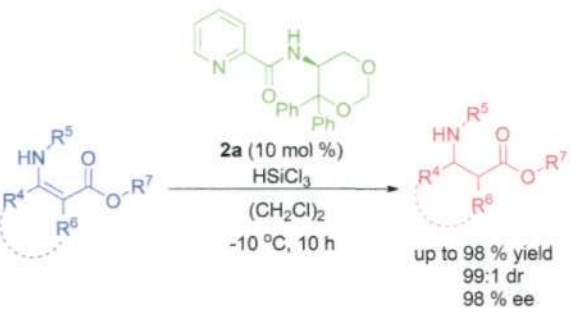


Inside cover
See Roymon Joseph and Eric Masson, pp. 3116–3127.

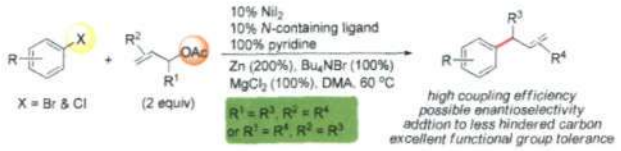
Image reproduced by permission of Eric Masson from *Org. Biomol. Chem.*, 2013, **11**, 3116.

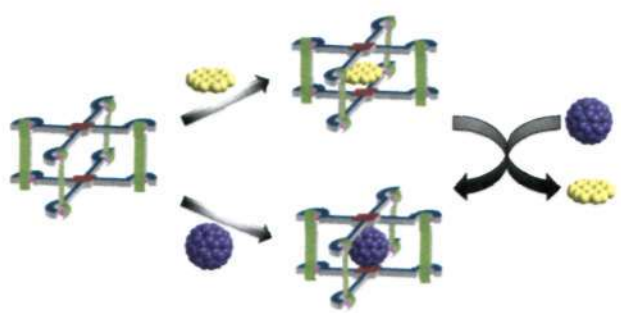
COMMUNICATIONS

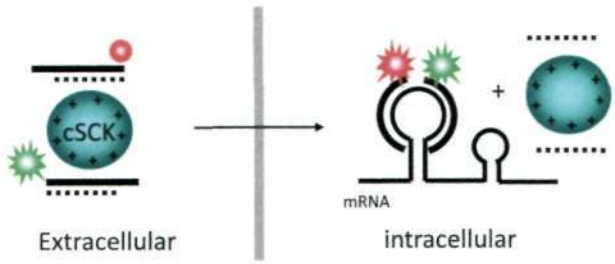


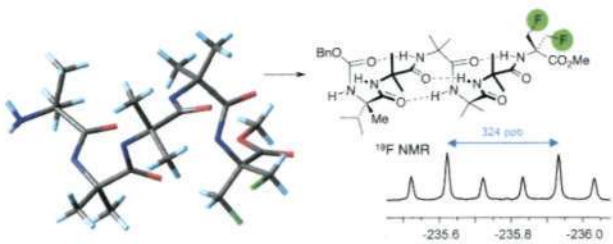


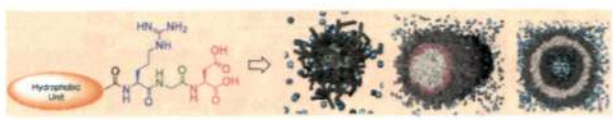
This journal is © The Royal Society of Chemistry 2013

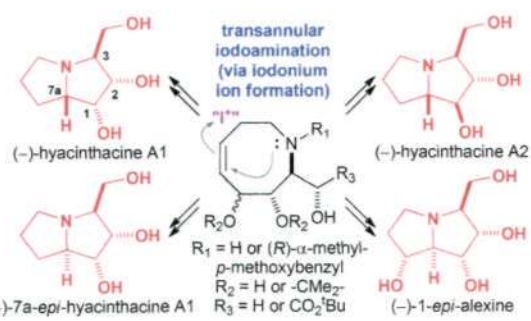




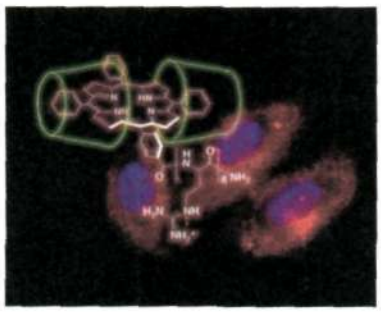








3203

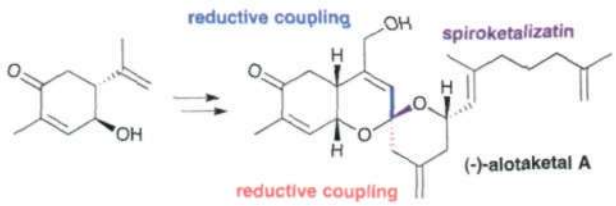


Cellular uptake of octaarginine-conjugated tetraarylporphyrin included by per-*O*-methylated β-cyclodextrin

Hiroaki Kitagishi,* Satoshi Hatada, Toshiaki Itakura, Yuki Maki, Yasuaki Maeda and Koji Kano*

A supramolecular complex of *meso*-tetraarylporphyrin having an octaarginine peptide with per-*O*-methylated β-cyclodextrin (TMe-β-CD) was prepared to investigate the effect of encapsulation of the hydrophobic porphyrin plane by TMe-β-CD on the cellular uptake efficiency.

3212

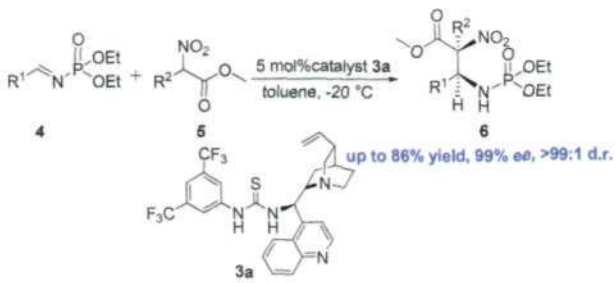


Total synthesis and structure–activity relationship study of the potent cAMP signaling agonist (−)-alotaketal A

Jinhua Huang, Jessica R. Yang, Jin Zhang* and Jiong Yang*

Total synthesis of alotaketal A employing repeated reductive allylation of esters. The SAR and subcellular specific activity of alotaketal A is elucidated.

3223

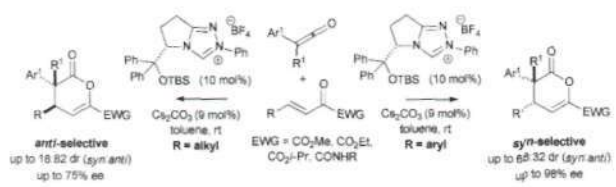


Diastereo- and enantioselective nitro-Mannich reaction of α-substituted nitroacetates to *N*-phosphoryl imines catalyzed by *cinchona* alkaloid thiourea organocatalysts

Weidong Fan, Shasha Kong, Yan Cai, Guiping Wu and Zhiwei Miao*

The stereoselective formation of β-nitro ethylphosphoramidates has been achieved *via* a nitro-Mannich reaction employing a *cinchona* alkaloid thiourea as an organocatalyst.

3230



NHC-mediated enantioselective formal [4 + 2] cycloadditions of alkylarylketenes and β,γ-unsaturated α-ketocarboxylic esters and amides

Stuart M. Leckie, T. Bruce Brown, David Pryde, Tomas Lebl, Alexandra M. Z. Slawin and Andrew D. Smith*

Chiral N-heterocyclic carbenes (NHCs) promote the asymmetric formal [4 + 2] cycloaddition of alkylarylketenes with β,γ-unsaturated α-ketocarboxylic esters and amides.

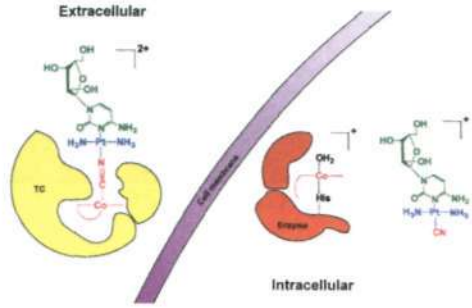
This journal is © The Royal Society of Chemistry 2013

3247

Two-step activation prodrugs: transplatin mediated binding of chemotherapeutic agents to vitamin B_{12}

Mai Thanh Quynh Tran, Evelyne Furger and Roger Alberto*

Cytotoxic drugs X in the vitamin B_{12} conjugate [{Co}-CN-{*trans*-Pt$(NH_3)_2$-X}]$^{2+}$ are released for exerting their biological activity *via* a two-step activation process.



3255

Gold amides as anticancer drugs: synthesis and activity studies

Sonya Newcombe, Mariusz Bobin, Amruta Shrikhande, Chris Gallop, Yannick Pace, Helen Yong, Rebecca Gates, Shuvashri Chaudhuri, Mark Roe, Eva Hoffmann* and Eddy M. E. Viseux*

Modular gold amide chemotherapeutics: Access to modern chemotherapeutics with robust and flexible synthetic routes amenable to extensive customisation is a key requirement in drug synthesis and discovery.