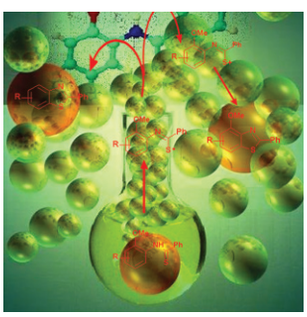
ISSN 1477-0520 OBCRAK(20) 2885-3050(2004)

Organic & Biomolecular Chemistry

INDEXED IN MEDLINE

Incorporating Acta Chemica Scandinavica

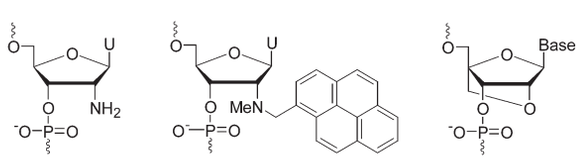


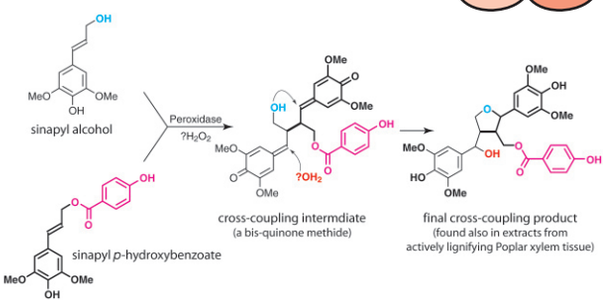
Cover
See Nadale K. Downer and Yvette A. Jackson, pp. 3039–3043.
The cyclization of *o*-methoxythiobenzamides to benzothiazoles is influenced by the electron density of the primary ring. Cyclization may occur with replacement of the *ortho* hydrogen or the *ortho* methoxy group.

contents

EDITORIAL

COMMUNICATIONS

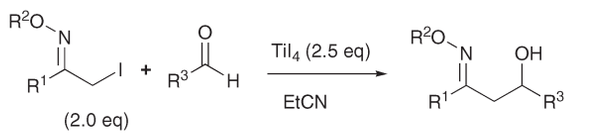




Preparation and relevance of a cross-coupling product between sinapyl alcohol and sinapyl *p*-hydroxybenzoate

Fachuang Lu, John Ralph, Kris Morreel, Eric Messens and Wout Boerjan

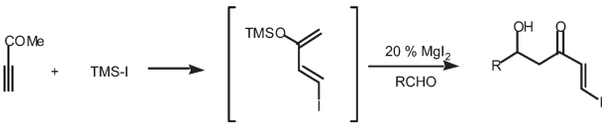
Cross-coupling of sinapyl *p*-hydroxybenzoate and sinapyl alcohol produces a product detected in poplar, implicating sinapyl *p*-hydroxybenzoate as a lignin precursor.



Aza-Reformatsky-type reaction of α-iodomethyl ketone *O*-alkyl oximes promoted by titanium tetraiodide

Makoto Shimizu and Tadahiro Toyoda

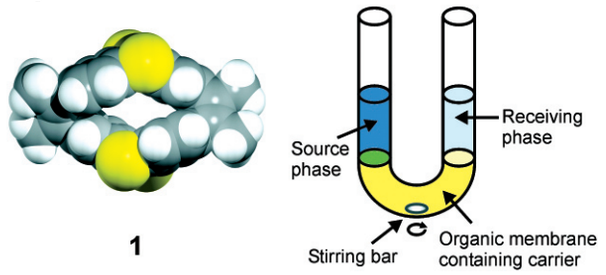
Titanium tetraiodide promotes an aza-Reformatsky-type reaction of α-iodomethyl ketone *O*-alkyl oximes with carbonyl compounds to give β-hydroxy ketone *O*-alkyl oximes in good to high yields.



MgI_2-catalyzed halo aldol reaction: a practical approach to (*E*)-β-iodovinyl-β′-hydroxyketones

Han-Xun Wei, Cody Timmons, Mohamed Ali Farag, Paul W. Paré and Guigen Li

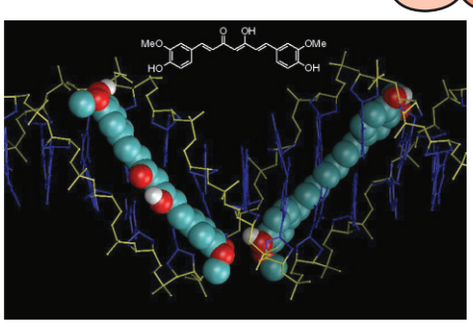
MgI_2 catalyzes the halo aldol reaction of halo dienes with aldehydes at 0 °C to give exclusive *E* selectivity.



Synthesis and ligand properties of thianthrenophane

Stephan Amthor, Christoph Lambert, Barbara Graser, Dirk Leusser, Carola Selinka and Dietmar Stalke

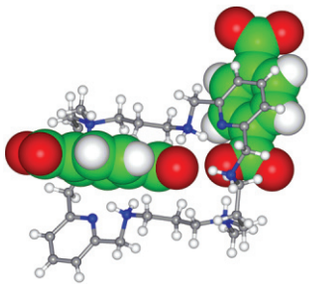
An endohedral $[Ag(\mathbf{1})]^+$ complex is the explanation for high selectivity of thianthrenophane **1** as a carrier for Ag^+ as well as for its high rates in ligand membrane transport experiments.



Circular dichroism spectroscopic studies reveal pH dependent binding of curcumin in the minor groove of natural and synthetic nucleic acids

Ferenc Zsila, Zsolt Bikádi and Miklós Simonyi

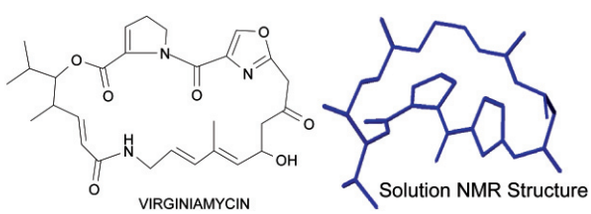
CD spectroscopy reveals the natural anticancer polyphenolic agent curcumin to bind in the minor groove of DNA in a pH dependent manner



Supramolecular aggregates between carboxylate anions and an octaaza macrocyclic receptor

Carla Cruz, Rita Delgado, Michael G. B. Drew and Vítor Félix

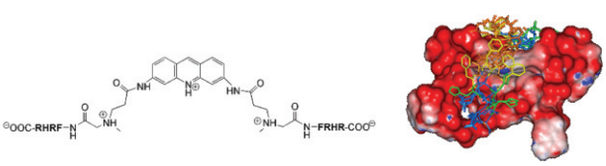
The 28-membered octaazamacrocycle $Me_2[28]py_2N_6$ was used as receptor for the molecular recognition of aromatic and aliphatic carboxylate substrates. No special selectivity was found. Crystal structures of $H_6Me_2[28]py_2N_6^{6+}$ with terephthalate and 4,4′-dibenzoate showed that they are assembled through an extensive 3-D network of hydrogen bonds.



Solvent affects the conformation of virginiamycin M_1 (pristinamycin IIA, streptogramin A)

Jason Dang, Mikael Bergdahl, Frances Separovic, Robert T. C. Brownlee and Robert P. Metzger

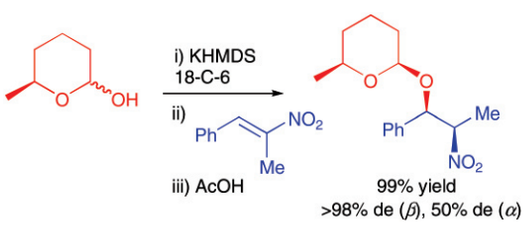
NMR shows the conformation of the antibiotic virginiamycin M1 is solvent dependent and differs from that bound to the ribosome.



Tetrapeptides induce selective recognition for G-quadruplexes when conjugated to a DNA-binding platform

Sylvain Ladame, James A. Schouten, John Stuart, Jose Roldan, Stephen Neidle and Shankar Balasubramanian

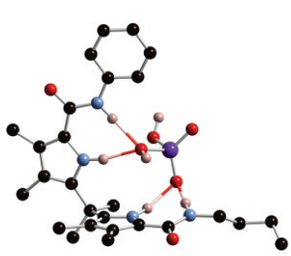
Combinatorially selected tetrapeptides are shown to induce G-quadruplex selective over double-stranded DNA recognition when conjugated to an acridine or acridone tricyclic heterocycle. Molecular modelling suggests that peptide side-chains specifically interact with the TTA loops of the human telomeric G-quadruplex.



Highly stereoselective oxy-Michael additions to α,β-disubstituted nitro olefins: asymmetric synthesis of pseudo-norephedrine derivatives and THP* protected α-hydroxy ketones

David J. Buchanan, Darren J. Dixon and Felix A. Hernandez-Juan

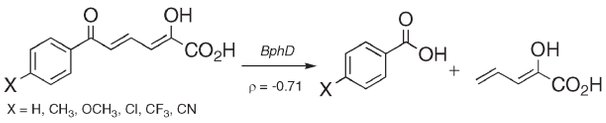
The highly stereoselective delta lactol oxy-Michael addition provides rapid access to protected α-hydroxy ketones and α,β-disubstituted ethanolamine derivatives



Anion binding properties of 5,5′-dicarboxamido-dipyrrolylmethanes

Ismael El Drubi Vega, Philip A. Gale, Michael B. Hursthouse and Mark E. Light

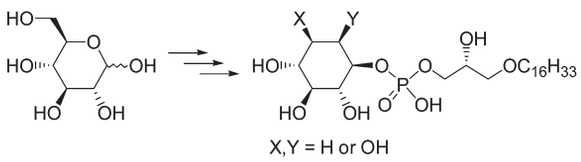
The anion complexation properties of several 5,5′-dicarboxamido-dipyrrolylmethanes have been studied with several derivatives showing high affinities for dihydrogen phosphate in competitive solvent media.



Synthetic 6-aryl-2-hydroxy-6-ketohexa-2,4-dienoic acid substrates for C–C hydrolase BphD: investigation of a general base catalytic mechanism

Damian M. Speare, Sarah M. Fleming, Martin N. Beckett, Jian-Jun Li and Timothy D. H. Bugg

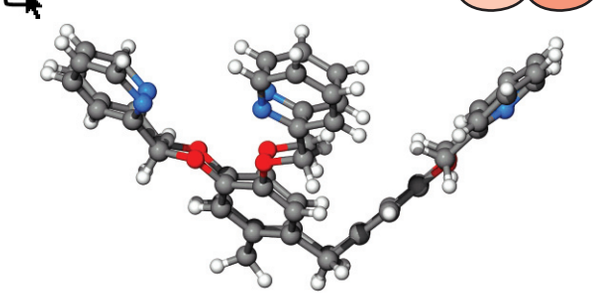
The enzymatic processing of a series of synthetic dienol substrates by C–C hydrolase BphD is consistent with a general base catalytic mechanism.



Synthesis of anti-tumour phosphatidylinositol analogues from glucose by the use of ring-closing olefin metathesis

Thomas L. Andresen, Dorthe M. Skytte and Robert Madsen

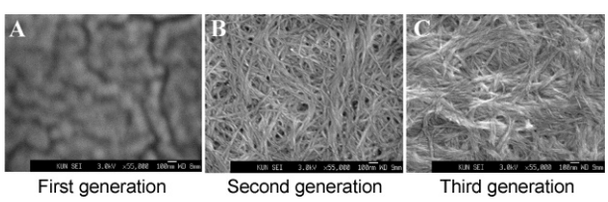
Toward the development of a novel drug delivery system, three phosphatidylinositol analogues are prepared and shown to inhibit the growth of human colon cancer cells.



Building blocks for cyclotriveratrylene-based coordination networks

Michaele J. Hardie, Rachael M. Mills and Christopher J. Sumby

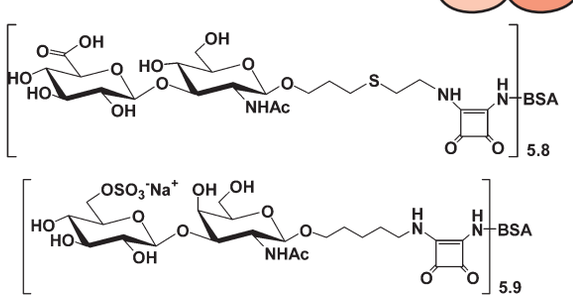
A series of bridging ligands/molecular hosts have been prepared by appending nitrogen-containing heterocycles to either cyclotricatechylene or cyclotriguaiacylene cores.



Self-assembly of two-component peptidic dendrimers: dendritic effects on gel-phase materials

Andrew R. Hirst and David K. Smith

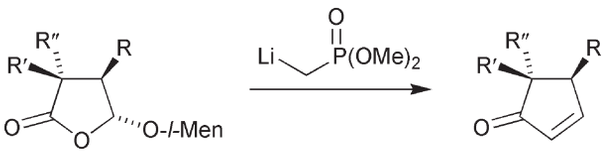
Dendritic effects on two-component gels are elucidated and it is found that using the second generation dendritic building block yields the optimum gel-phase materials.



Synthesis and conjugation of oligosaccharide analogues of fragments of the immunoreactive glycan part of the circulating anodic antigen of the parasite *Schistosoma mansoni*

Adriana Carvalho de Souza, Joeri Kuil, C. Elizabeth P. Maljaars, Koen M. Halkes, Johannes F. G. Vliegenthart and Johannis P. Kamerling

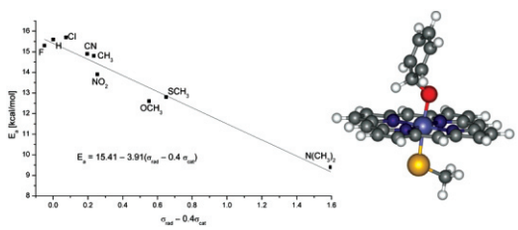
Two series of oligosaccharide-conjugate analogues of the O-glycan →6)-[β-D-Glc*p*A-(1→3)]-β-D-Gal*p*NAc-(1→ were synthesized to study the specificity of monoclonal antibodies.



Conjugate addition of organocopper reagents to γ-alkoxybutenolides and application to the synthesis of non-racemic alkyl cyclopentenones

Jeremy Robertson, Morgan Ménard, Rhonan Ford and Stephen Bell

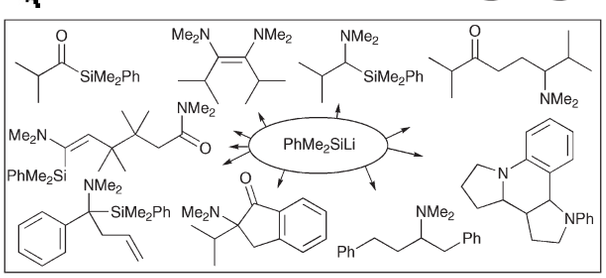
The synthesis is described of di- and trisubstituted cyclopentenones from the products of organocopper addition and enolate alkylation of (5*R*)-5-(*l*-menthyloxy)-2[5*H*]-furanone



Mechanism and structure–reactivity relationships for aromatic hydroxylation by cytochrome P450

Christine M. Bathelt, Lars Ridder, Adrian J. Mulholland and Jeremy N. Harvey

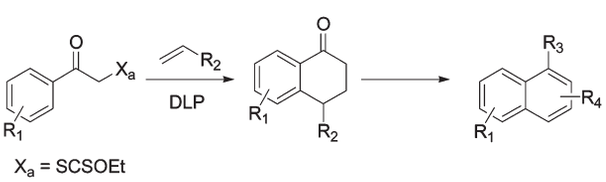
This computational study reports the detailed mechanism and a structure–reactivity relationship for aromatic hydroxylation by cytochrome P450.



The extraordinary reactions of phenyldimethylsilyllithium with *N*,*N*-disubstituted amides

Marina Buswell, Ian Fleming, Usha Ghosh, Stephen Mack, Matthew Russell and Barry P. Clark

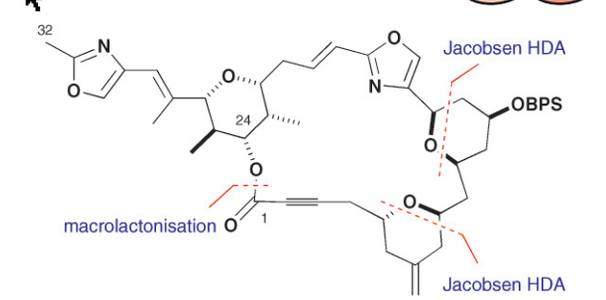
The phenyldimethylsilyllithium reagent reacts with tertiary amides to give an astonishingly wide range of different products, depending upon the reaction conditions, the stoichiometry and the structure of the amide.



Synthesis of substituted naphthalenes from α-tetralones generated by a xanthate radical addition–cyclisation sequence

Alejandro Cordero-Vargas, Inés Pérez-Martín, Béatrice Quiclet-Sire and Samir Z. Zard

An efficient synthesis of substituted naphthalenes is reported. These compounds are prepared from α-tetralones, obtained by a xanthate-mediated addition–cyclisation sequence.



Phorboxazole B synthetic studies: construction of C(1–32) and C(33–46) subtargets

Ian Paterson, Alan Steven and Chris A. Luckhurst

An iterative cyclocondensation strategy exploited the Jacobsen hetero-Diels–Alder (HDA) reaction for the synthesis of the C(5–9) and C(11–15) tetrahydropyran rings.

ARTICLES

COPIES OF CITED ARTICLES

The Library and Information Centre (LIC) of the RSC offers a first class Document Delivery Service for items in Chemistry and related subjects. Contact the LIC, The Royal Society of Chemistry, Burlington House, Piccadilly, London W1V 0BN, UK; Tel: +44 (0) 20 7437 8656; Fax: +44 (0) 20 7287 9798; E-mail: library@rsc.org

This service is only available from the LIC in London and not the RSC in Cambridge.

FREE E-MAIL ALERTS

Contents lists in advance of publication are available on the web *via* www.rsc.org/obc – or take advantage of our free e-mail alerting service (www.rsc.org/ej_alert) to receive notification each time a new list becomes available.

ADVANCE ARTICLES AND ELECTRONIC JOURNAL

Free site-wide access to Advance Articles and the electronic form of this journal is provided with a full-rate institutional subscription. See www.rsc.org/ejs for more information.

* Indicates the author for correspondence: see article for details.

Electronic supplementary information (ESI) is available *via* the online article (see http://www.rsc.org/esi for general information about ESI).