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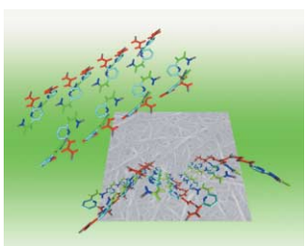
Indexed in Medline from issue 1

Organic & Biomolecular Chemistry

FORMERLY PERKIN TRANSACTIONS 1 AND 2

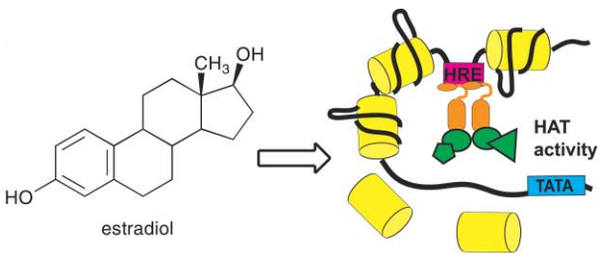
Incorporating Acta Chemica Scandinavica



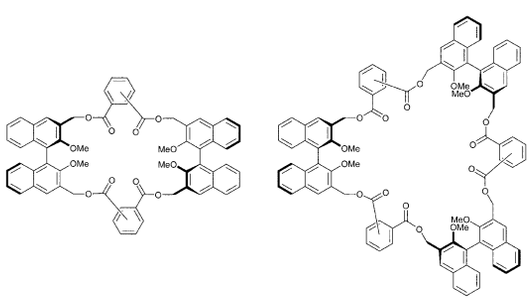
Cover
See Kazuhiro Yabuuchi, Emmanuel Marfo-Owusu and Takashi Kato, page 3464.
Hydrogen-bonded 1D molecular array of a pyridine-based bisurea compound: the zigzag layered sheet formed through intra- and intermolecular hydrogen bonds.

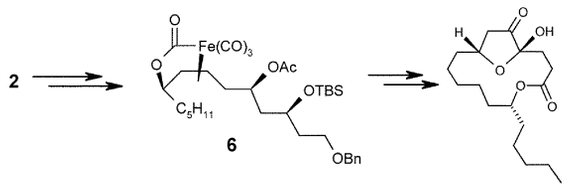
contents

EMERGING AREA



COMMUNICATIONS

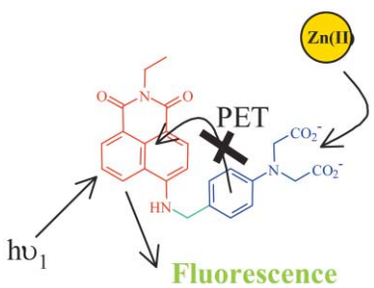




Synthesis of (−)-Gloeosporone, a fungal autoinhibitor of spore germination using a π-allyltricarbonyliron lactone complex as a templating architecture for 1,7-diol construction

Steven V. Ley, Ed Cleator, Jürgen Harter and Christopher J. Hollowood

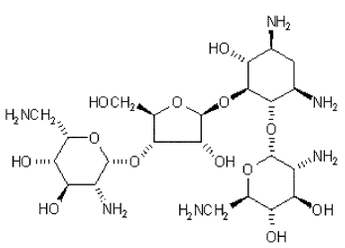
The synthesis of the fungal autoinhibitor (−)-Gloeosporone is described. The key step involves reductive removal of the ligating iron, used to instil the embedded 1,7-diol functionality species, by treatment of **6** with lithium naphthalenide.



A highly selective and sensitive fluorescent PET (photoinduced electron transfer) chemosensor for Zn(II)

Thorfinnur Gunnlaugsson, T. Clive Lee and Raman Parkesh

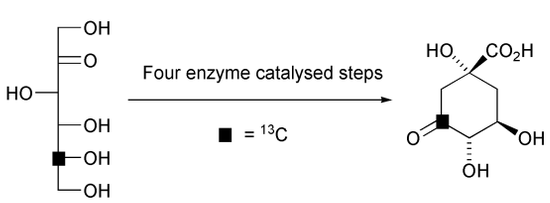
We report the design and synthesis of a new, highly Zn(II) selective and sensitive fluorescent PET chemosensor, synthesised in high yields in a few steps; it does not respond to Ca^{2+} and Mg^{2+}, and many other transition metal ions.



Binding affinity and inhibitory potency of neomycin and streptomycin on the Tat peptide interaction with HIV-1 TAR RNA detected by on-line acoustic wave sensor

Nardos Tassew and Michael Thompson

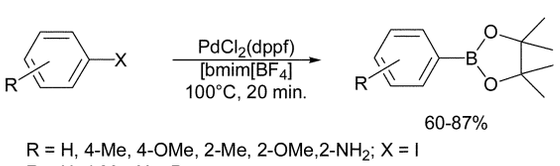
The binding of neomycin and streptomycin to a segment of the transactivation responsive region (TAR) RNA of the human immunodeficiency virus, and their inhibitory potency to disrupt the interaction of the RNA with a regulatory Tat protein-derived peptide, have been studied.



Enzymic synthesis of 3-[3-^{13}C]dehydroquinic acid

Martyn Frederickson, Emily J. Parker, John R. Coggins and Chris Abell

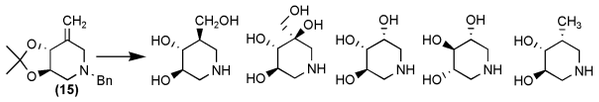
3-[^{13}C]Dehydroquinic acid has been prepared from commercially available D-5-[^{13}C]fructose over four enzyme catalysed steps.



Synthesis of arylboronates by the palladium catalysed cross-coupling reaction in ionic liquids

Andrzej Wolan and Marek Zaidlewicz

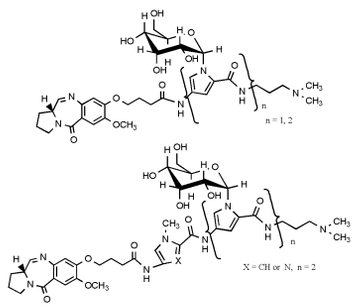
Synthesis of arylboronates from aryl iodides and bromides, and pinacolborane in ionic liquids is described.



A new access to polyhydroxy piperidines of the azasugar class: synthesis and glycosidase inhibition studies

Ganesh Pandey, Manmohan Kapur, M. Islam Khan and Sushama M. Gaikwad

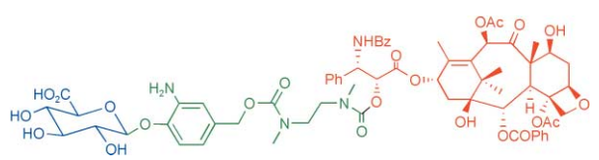
A new synthetic strategy has been devised to access a variety of polyhydroxylated piperidines belonging to the azasugar class of glycosidase inhibitors.



Design, synthesis and *in vitro* cytotoxicity studies of novel pyrrolo [2,1][1,4] benzodiazepine-glycosylated pyrrole and imidazole polyamide conjugates

Rohtash Kumar and J. William Lown

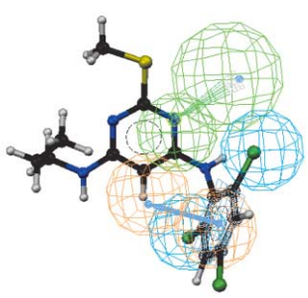
The design, synthesis and biological evaluation of novel pyrrolo [2,1][1,4] benzodiazepine-water insoluble and water soluble glycosylated pyrrole and imidazole polyamide conjugates are described.



A new paclitaxel prodrug for use in ADEPT strategy

Emmanuel Bouvier, Sylvie Thirot, Frédéric Schmidt and Claude Monneret

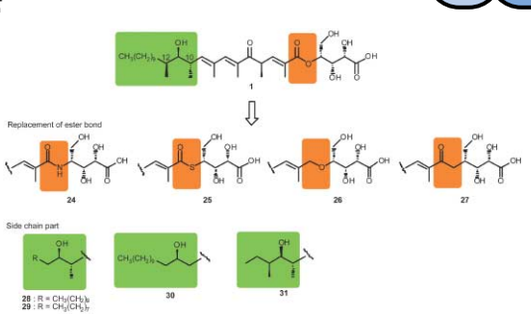
A tripartite paclitaxel prodrug has been synthesized. *In vivo* tests showed good kinetics of drug liberation by β-glucuronidase.



Synthesis, molecular modeling and biological activity of methyl and thiomethyl substituted pyrimidines as corticotropin releasing hormone type 1 antagonists

Adam McCluskey, Paul A. Keller, Jody Morgan and James Garner

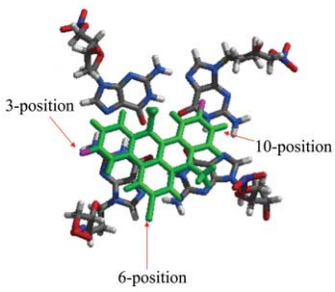
The thiomethyl moiety contributes to activity, and statistical validity of our CRH_1 pharmacophore but is not selected as important for activity.



Chemistry and biology of khafrefungin. Large-scale synthesis, design, and structure–activity relationship of khafrefungin, an antifungal agent

Masayuki Nakamura, Yuichiro Mori, Kennichi Okuyama, Kunihiro Tanikawa, Satoshi Yasuda, Kentaro Hanada and Shū Kobayashi

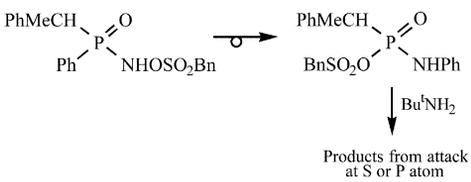
Multigram-scale synthesis, design and structure–activity relationship of khafrefungin, an antifungal agent that inhibits inositol phosphorylceramide (IPC) synthase, are described.



Antitumour polycyclic acridines. Palladium(0) mediated syntheses of quino[4,3,2-*kl*]acridines bearing peripheral substituents as potential telomere maintenance inhibitors

Robert A. Heald and Malcolm F. G. Stevens

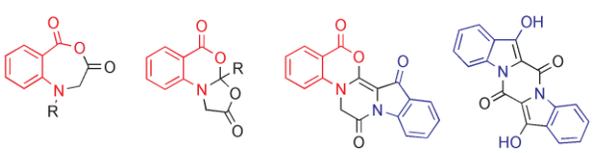
Pentacyclic quino[4,3,2-*kl*]acridines substituted in the 3-, 6- and 10-positions have been prepared by Pd(0) mediated coupling reactions and may be converted to 8,13-dimethylquinoacridinium salts with telomerase-inhibitory activity.



Competing sulfonylation and phosphonylation following rearrangement of an *O*-sulfonyl-*N*-phosphinoylhydroxylamine with *tert*-butylamine: demonstration of a phosphonamidic-sulfonic anhydride intermediate and ^{18}O-labelling evidence on how it may be formed

Martin J. P. Harger

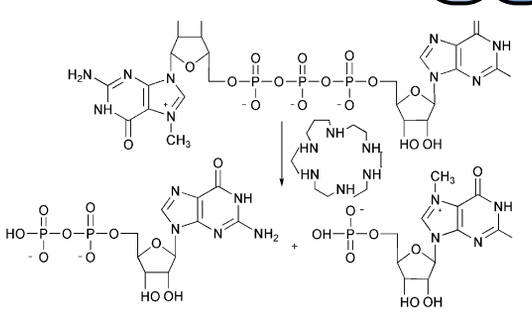
The observed products correspond to attack at sulfur or phosphorus in a phosphonamidic-sulfonic anhydride.



Products from dehydration of dicarboxylic acids derived from anthranilic acid

Per Wiklund, Ivan Romero and Jan Bergman

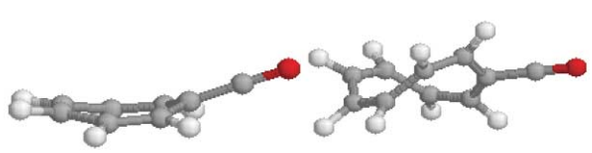
Treatment of dicarboxylic acids derived from anthranilic acids with several dehydrating agents, gave cyclic ortho amides, 7-membered anhydrides and diketopiperazine indole dimers. Literature structures of products from such reactions have been revised.



Macrocyclic amines as catalysts of the hydrolysis of the triphosphate bridge of the mRNA 5′-*cap* structure

Zhibo Zhang, Harri Lönnberg and Satu Mikkola

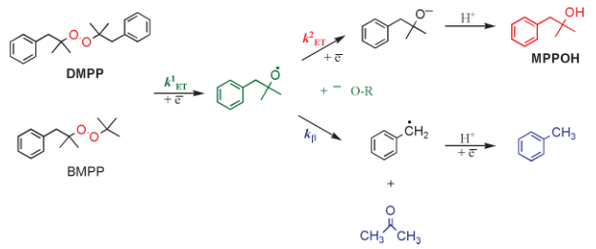
Three macrocyclic amines are found to enhance the hydrolysis of the triphosphate bridge of a 5′-*cap* model compound, P^1-(7-methylguanosine) P^3-guanosine 5′,5′-triphosphate.



Aromaticity and antiaromaticity in fulvenes, ketocyclopolyenes, fulvenones, and diazocyclopolyenes

Katayoun Najafian, Paul von Ragué Schleyer and Thomas T. Tidwell

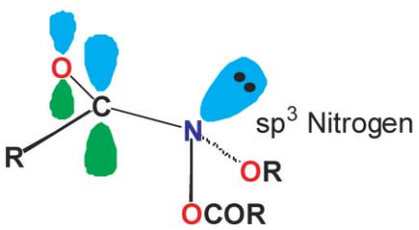
Computational studies reveal the degree of aromaticity/antiaromaticity in the 3, 5, 7 and 9-membered ring members of the fulvene family.



Model dialkyl peroxides of the Fenton mechanistic probe 2-methyl-1-phenyl-2-propyl hydroperoxide (MPPH): kinetic probes for dissociative electron transfer

David C. Magri and Mark S. Workentin

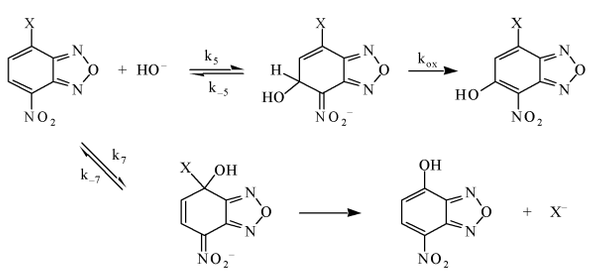
Two dialkyl peroxides, DMPP and BMPP, were devised as kinetic probes to investigate the partitioning between electron transfer and β-scission fragmentation of the generated alkoxyl radical after dissociative electron transfer to the O–O bond using heterogeneous and homogeneous electrochemical techniques.



Crystal structures and properties of mutagenic *N*-acyloxy-*N*-alkoxyamides — "most pyramidal" acyclic amides

Ashley-Mae E. Gillson, Stephen A. Glover, David J. Tucker and Peter Turner

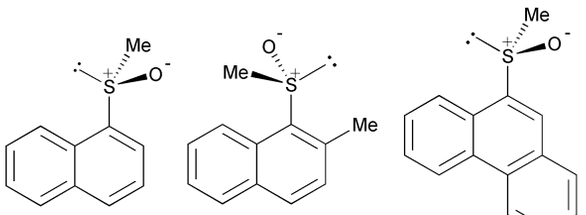
N-Acyloxy-*N*-alkoxyamides are the "most pyramidal" acyclic amides. X-ray structures confirm the dramatic influence of bisoxo-substitution at the amide nitrogen.



σ-Adduct formation and oxidative substitution in the reactions of 4-nitrobenzofurazan and some derivatives with hydroxide ions in water

Michael R. Crampton, Rachel E. A. Lunn and David Lucas

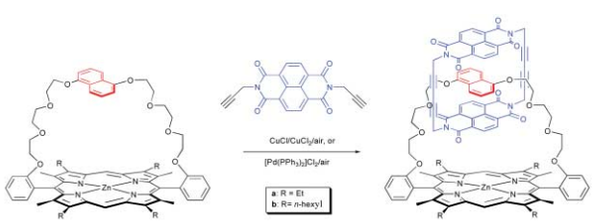
Reaction of 4-nitrobenzofurazan and its derivatives with hydroxide ions yields σ-adducts which may be oxidised to hydroxynitrobenzofurazans.



Circular dichroism spectra and absolute configuration of some aryl methyl sulfoxides

Maria Irene Donnoli, Egidio Giorgio, Stefano Superchi and Carlo Rosini

The absolute configurations of **1**, **2** and **3** were assigned by coupled oscillator calculations of their circular dichroism spectra.



Neutral π-associated porphyrin [2]catenanes

Maxwell J. Gunter and Sandra M. Farquhar

The synthesis is described of a series of neutral porphyrin-containing catenanes, consisting of a zinc porphyrin strapped by a polyethylene glycol chain incorporating a central naphthoquinol unit, interlinked with a naphthalene diimide macrocycle.

ARTICLES

ADDITIONS AND CORRECTIONS

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Dates, venues and contact details of forthcoming events.

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