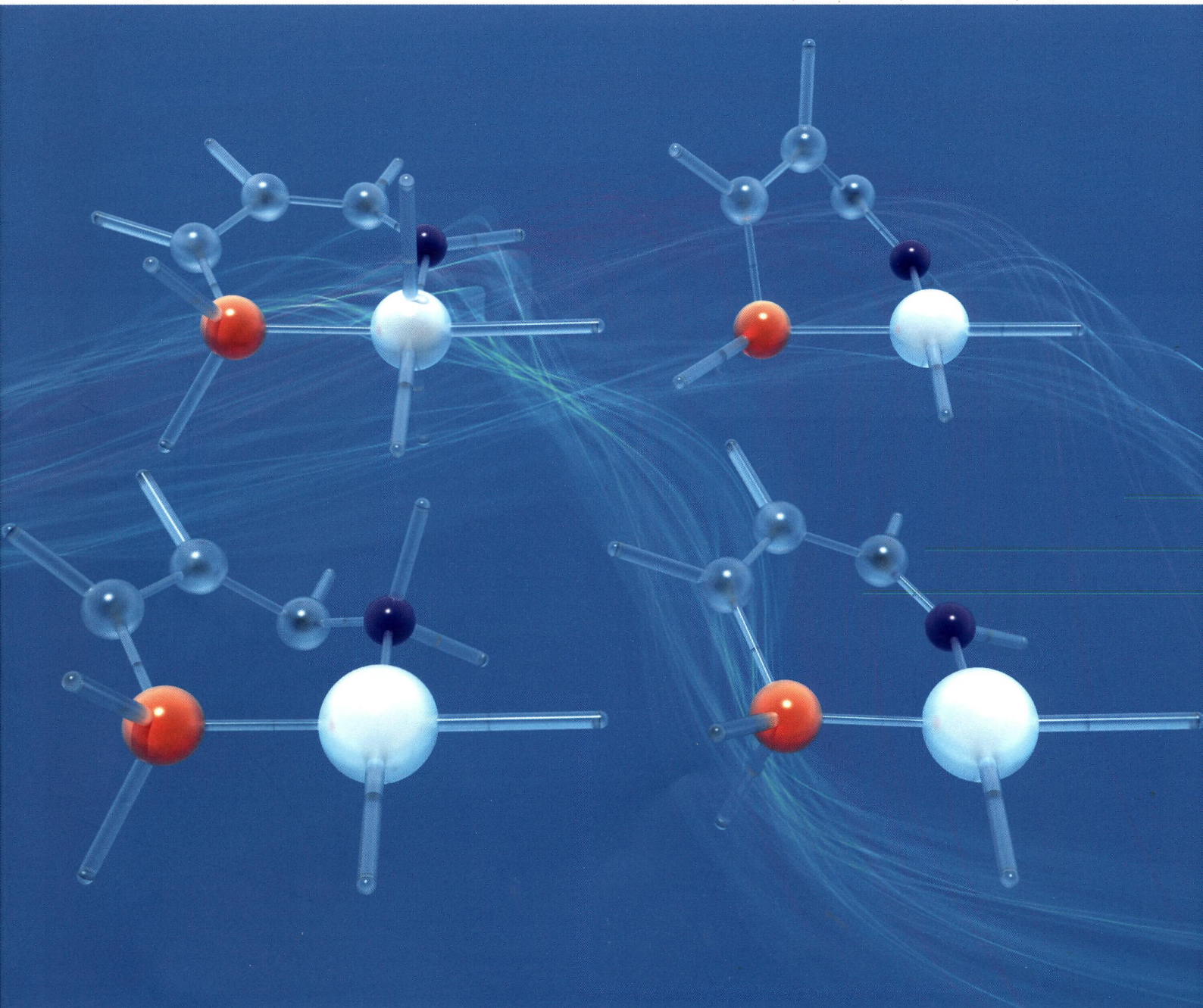


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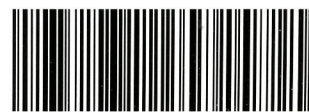


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PAPER

Patrick J. Guiry, John M. Brown *et al.*
Meta-analysis in asymmetric catalysis. Influence of chelate geometry on the roles of PN chelating ligands



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Organic & Biomolecular Chemistry

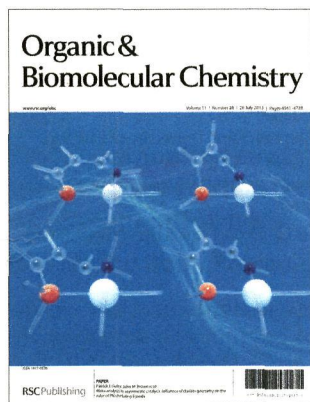
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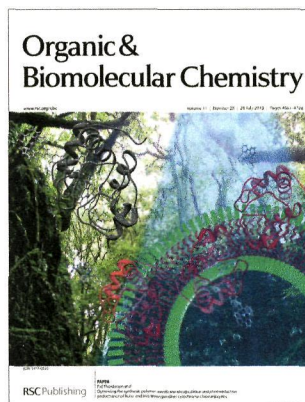
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Cover

See Patrick J. Guiry,
John M. Brown *et al.*,
pp. 4591–4601.

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Inside cover

See Pall Thordarson *et al.*,
pp. 4602–4612.

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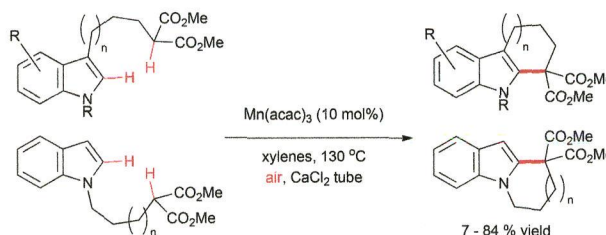
COMMUNICATIONS

4569

Manganese-catalyzed aerobic dehydrogenative cyclization toward ring-fused indole skeletons

Kunosuke Oisaki,* Junpei Abe and Motomu Kanai*

The first example of manganese(III)-catalyzed aerobic dehydrogenative cyclization producing ring-fused indole skeletons is described.

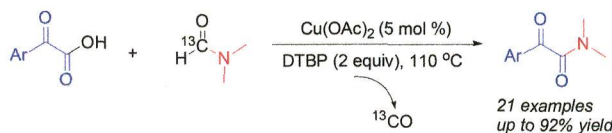


4573

Copper-catalyzed oxidative condensation of α -oxocarboxylic acids with formamides: synthesis of α -ketoamides

Hua Wang, Li-Na Guo* and Xin-Hua Duan*

A copper-catalyzed coupling of α -oxocarboxylic acids with formamides is reported. This simple method provides a practical approach toward the synthesis of α -ketoamides with a variety of functional groups.



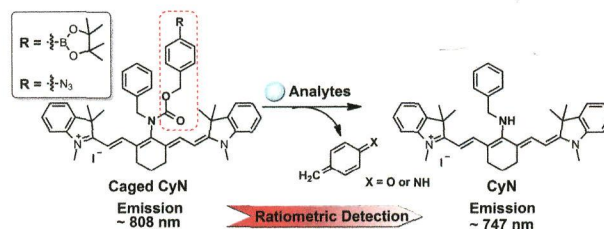
Федеральное государственное
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Уральского отделения
Российской академии наук (ЦНБ УрО РАН)

4577

Development of ratiometric near-infrared fluorescent probes using analyte-specific cleavage of carbamate

Dongjian Zhu, Guoping Li, Lin Xue* and Hua Jiang*

In terms of analyte-induced carbamate cleavage, two fluorescent probes, CyNB and CyNN₃, exhibit a significant analyte-triggered response with ratiometric fluorescence change in the NIR range and dual-emission ratiometry in living cells.

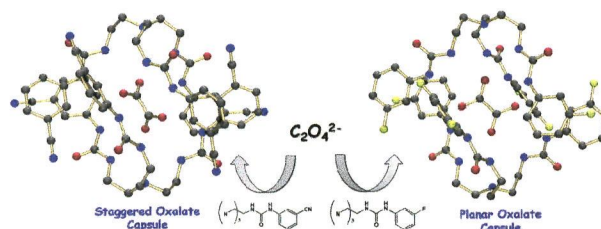


4581

Tris(2-aminoethyl)amine based tripodal urea receptors for oxalate: encapsulation of staggered vs. planar conformers

Purnandhu Bose, Ranjan Dutta and Pradyut Ghosh*

Simple tris(2-aminoethyl)amine (TREN) based tripodal urea receptors are investigated for the encapsulation of divalent oxalate ($C_2O_4^{2-}$) in a semi-aqueous medium.

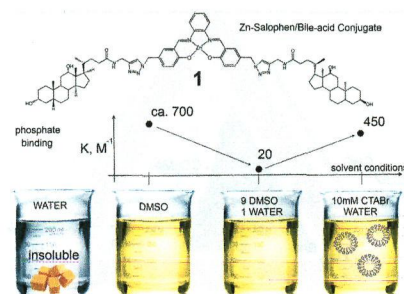


4585

A zinc-salophen/bile-acid conjugate receptor solubilized by CTABr micelles binds phosphate in water

Ondřej Jurček, Massimo Cametti,* Marta Pontini, Erkki Kolehmainen and Kari Rissanen*

Receptor **1**, composed of two deoxycholic acid moieties appended to a Zn-salophen complex, was prepared, characterized and tested for anion binding by ¹H NMR and UV-vis spectroscopic techniques.



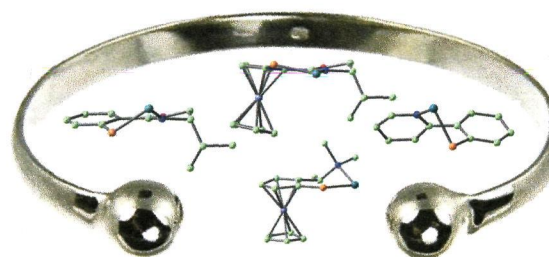
PAPERS

4591

Meta-analysis in asymmetric catalysis. Influence of chelate geometry on the roles of PN chelating ligands

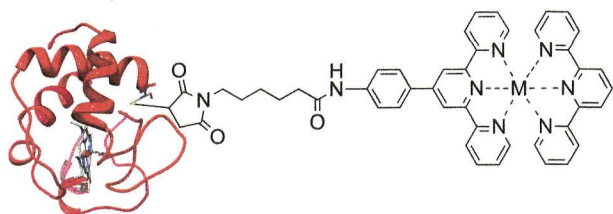
Michael P. Carroll, Patrick J. Guiry* and John M. Brown*

Analysis of X-ray crystal structures for families of PN ligands reveal conformational variations that can be linked to trends in catalytic asymmetric synthesis.



Different Chelates; different catalysis – Why?

4602



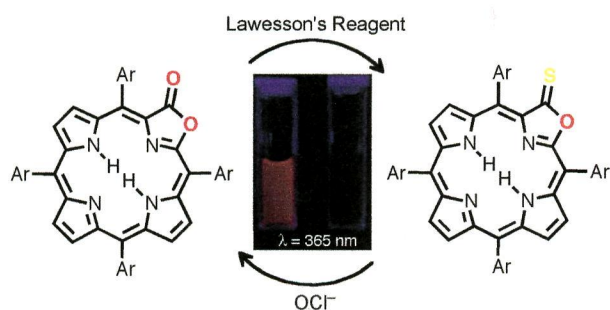
M = Ru(II) → Photoreduced at 480 nm
 M = Ir(III) → Photoreduced at 375 nm

Optimising the synthesis, polymer membrane encapsulation and photoreduction performance of Ru(II)- and Ir(III)-bis(terpyridine) cytochrome c bioconjugates

David Hvasanov, Alexander F. Mason, Daniel C. Goldstein, Mohan Bhadbhade and Pall Thordarson*

Light-activated bis(terpyridine) cytochrome c bioconjugates were synthesised with Ru(II) derivatives showing enhanced photoreduction activity upon encapsulation in a polymer.

4613

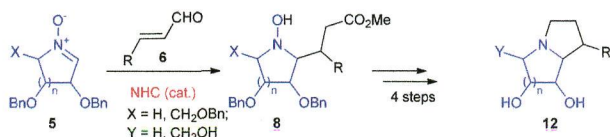


Porphothionolactones: synthesis, structure, physical, and chemical properties of a chemodosimeter for hypochlorite

Yi Yu, Brigitte Czepukojc, Claus Jacob, Yue Jiang, Matthias Zeller, Christian Brückner* and Jun-Long Zhang*

Lawesson's reagent converts the highly fluorescent porpholactones to dimly fluorescing thionoporpholactones; this reaction is reversed specifically by hypochlorite.

4622

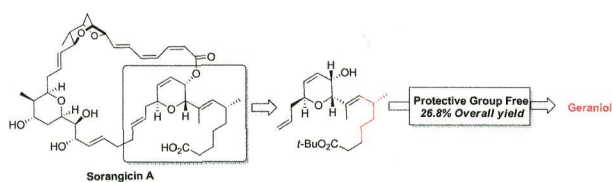


NHC-mediated cross-coupling of sugar-derived cyclic nitrones with enals: general and efficient synthesis of polyhydroxylated pyrrolizidines and indolizidines

Wen-Yuan Xu, Ren Iwaki, Yue-Mei Jia, Wei Zhang, Atsushi Kato* and Chu-Yi Yu*

A general and efficient method for the synthesis of polyhydroxylated pyrrolizidines and indolizidines has been developed based on the NHC-catalyzed cross-coupling of sugar-derived cyclic nitrones with enals.

4640



A stereoselective approach for the southeast segment (C1–C16) of (+)-sorangicin A

Y. Sridhar and P. Srihari*

The stereoselective protective group-free synthesis of the C1–C16 fragment of (+)-sorangicin A consisting of a dihydropyran subunit with a chiral alkyl substituent is achieved.

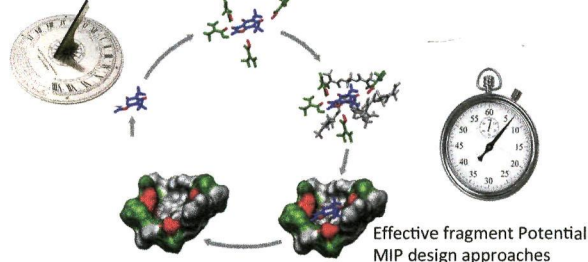
4646

The use of effective fragment potentials in the design and synthesis of molecularly imprinted polymers for the group recognition of PCBs

Dougal Cleland and Adam McCluskey*

Effective fragment potential (EFP) molecular modeling approaches have been applied for the first time to the rational design of molecularly imprinted polymers for the group recognition of selected polychlorinated biphenyls (PCBs).

Traditional MIP design approaches

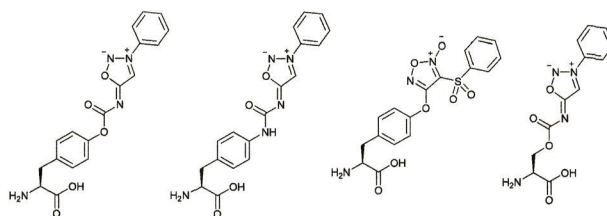


4657

Novel amino acids: synthesis of furoxan and sydnonimine containing amino acids and peptides as potential nitric oxide releasing motifs

Andrew Nortcliffe, Nigel P. Botting and David O'Hagan*

Amino acids are prepared with furoxan and sydnonimine ring systems in their side chains and orthogonal protecting group strategies illustrate that they can be built into peptides. The heterocyclic side chains are known to be metabolised to nitric oxide (NO) offering a strategy for the construction of peptides for the localisation of NO in cells.

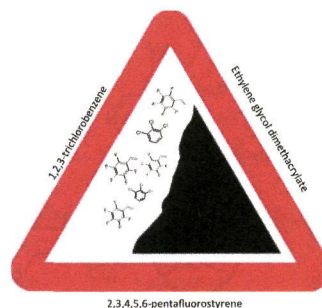


4672

An extreme vertices mixture design approach to the optimisation of 1,2,3-trichlorobenzene specific molecularly imprinted polymers

Dougal Cleland and Adam McCluskey*

Traditional approaches to molecularly imprinted polymer (MIP) design and optimisation typically afford a template (T) : functional monomer (FM) : crosslinker (CL) ratio of 1 : 2 : 20 to 1 : 4 : 20.

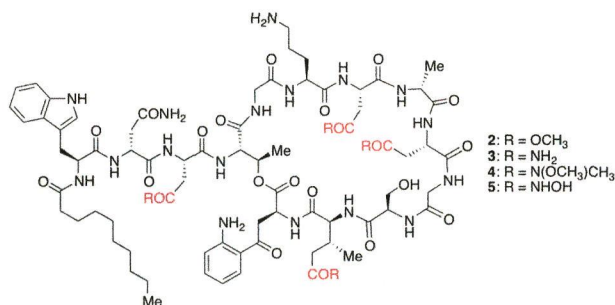


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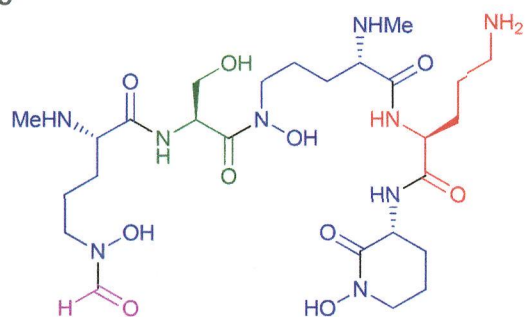
An efficient chemical synthesis of carboxylate-isostere analogs of daptomycin

Sabesan Yoganathan, Ning Yin, Yong He, Michael F. Mesleh, Yu Gui Gu and Scott J. Miller*

Herein we report a direct and efficient method for the synthesis of four new carboxylate-isostere analogs of daptomycin.



4686

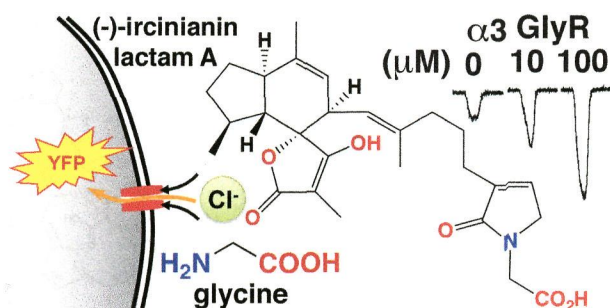


Structure and biosynthesis of scabichelin, a novel tris-hydroxamate siderophore produced by the plant pathogen *Streptomyces scabies* 87.22

Shinya Kodani, Joanna Bicz, Lijiang Song, Robert J. Deeth, Mayumi Ohnishi-Kameyama, Mitsuru Yoshida, Kozo Ochi* and Gregory L. Challis*

Scabichelin was identified as the product of a cryptic nonribosomal peptide synthetase, providing new insights into *Streptomyces scabies* iron acquisition.

4695



Sesterterpene glycinyl-lactams: a new class of glycine receptor modulator from Australian marine sponges of the genus *Psammocinia*

Walter Balansa, Robiul Islam, Frank Fontaine, Andrew M. Piggott, Hua Zhang, Xue Xiao, Timothy I. Webb, Daniel F. Gilbert, Joseph W. Lynch* and Robert J. Capon*

Three Australian sponges (*Psammocinia* spp.), yielded five new ircinianins including a potent and selective $\alpha 3$ GlyR potentiator and a selective $\alpha 1$ GlyR potentiator.

4702

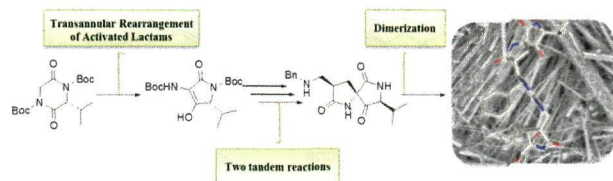


Synthesis of 2,6-disubstituted pyridin-3-yl C-2'-deoxyribonucleosides through chemoselective transformations of bromo-chloropyridine C-nucleosides

Tomáš Kubelka, Lenka Slavětínská, Václav Eigner and Michal Hocek*

Chemoselective cross-coupling reactions of bromo-chloropyridine C-nucleosides followed by another coupling or nucleophilic substitution were used for the synthesis of a library of 2,6-disubstituted pyridin-3-yl C-nucleosides.

4719



Stereoselective synthesis of original spiro lactams displaying promising folded structures

Guilhem Chaubet, Thibault Coursindel, Xavier Morelli, Stéphane Betzi, Philippe Roche, Yannick Guari, Aurélien Lebrun, Loïc Toupet, Yves Collette, Isabelle Parrot* and Jean Martinez*

The synthesis and characterization of unprecedented spiro lactam scaffolds are reported, highlighting one particular helical structure that putatively resembles a PolyProline II helix.