

JOURNAL OF THE CHEMICAL SOCIETY

**Perkin Transactions 1**

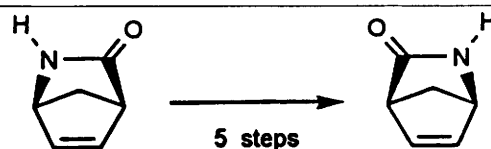
Organic and Bio-organic Chemistry

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## Perkin Communications

- 1201 **Conversion of one enantiomer of the carbocyclic nucleoside synthon 2-azabicyclo[2.2.1]hept-5-en-3-one into the other**

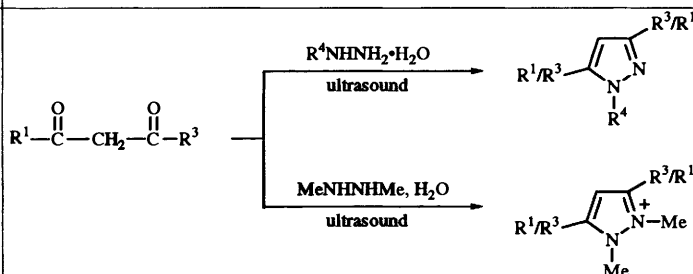
Christopher F. Palmer and Raymond McCague



The lactam synthon 2-azabicyclo[2.2.1]hept-5-en-3-one was converted into its enantiomer by a 5-step synthetic sequence incorporating a skeletal rearrangement mediated by anchimeric assistance of the nitrogen atom; the route proceeded *via* a tosylate intermediate prone to racemization

- 1205 **Synthesis of pyrazole fatty ester derivatives in water: a sonochemical approach**

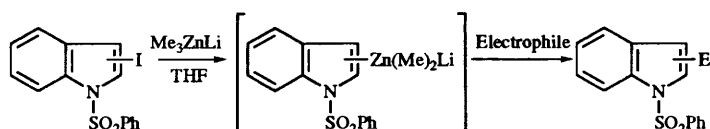
Marcel S. F. Lie Ken Jie and Prabhavathi Kalluri



$R^1 = [CH_2]_5Me$ ,  $R^3 = [CH_2]_8CO_2Me$ ,  $R^4 = H, Me, Ph$  or  $C_6H_4NO_2$

- 1207 **Preparation and reactions of lithium indolyl(dimethyl)zincates**

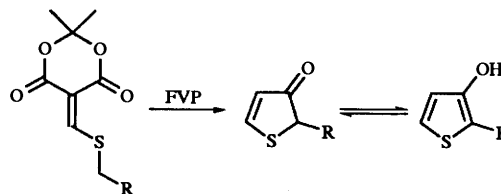
Yoshinori Kondo, Nobuo Takazawa, Akihiro Yoshida and Takao Sakamoto



## Articles

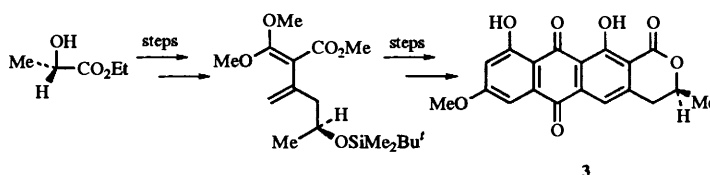
- 1209 Synthesis of 3-hydroxythiophenes and thiophen-3(2*H*)-ones by pyrolysis of alkylsulfanylmethylene Meldrum's acid derivatives

Gordon A. Hunter and Hamish McNab



- 1215 Pigments of fungi. Part 41. Synthesis of (*S*)-(+)- and (±)-dermolactone; stereochemistry of dermolactone from the Australian fungus *Dermocybe sanguinea* (Wulf. ex Fr.) Wünsche sensu Cleland

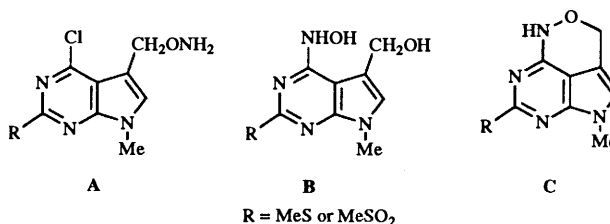
Ann S. Cotterill, Melvyn Gill and Nives M. Milanovic



Natural dermolactone is an anisochiral mixture in which **3** predominates over its antipode (28% ee)

- 1225 Some pyrrolopyrimidine chemistry directed to the synthesis of tricyclic purine analogues

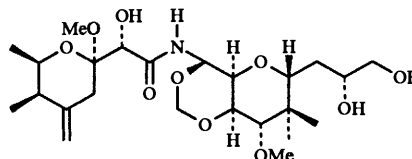
David M. Williams and Daniel M. Brown



Compounds **A** and **B** have been synthesised and attempts to convert them into the tricyclic derivative **C** studied

- 1233 Chemistry of the mycalamides, antiviral and antitumour compounds from a marine sponge. Part 5. Acid-catalysed hydrolysis and acetal exchange, double bond additions and oxidation reactions

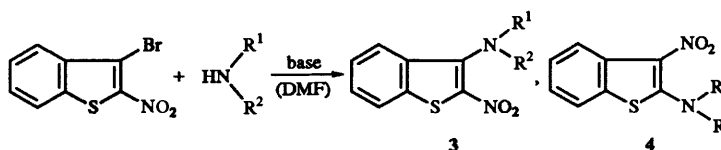
Andrew M. Thompson, John W. Blunt, Murray H. G. Munro and Nigel B. Perry



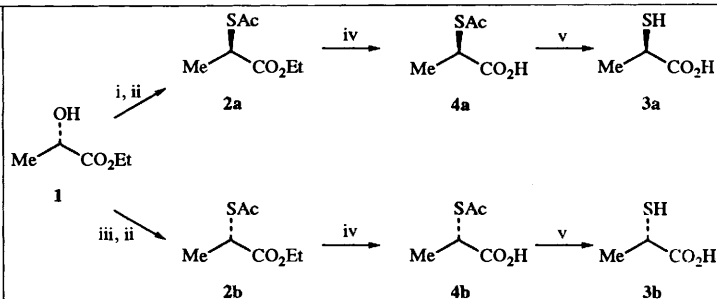
Acid-catalysed hydrolysis, acetal exchange, double-bond additions and oxidation of mycalamide **A** and some of its derivatives are described

- 1243 On the reaction between 3-bromo-2-nitrobenzo[*b*]thiophene and some amines: a novel aromatic nucleophilic substitution with rearrangement

Francesco Guerrero, Loredana Salerno, Liliana Lamartina and Domenico Spinelli



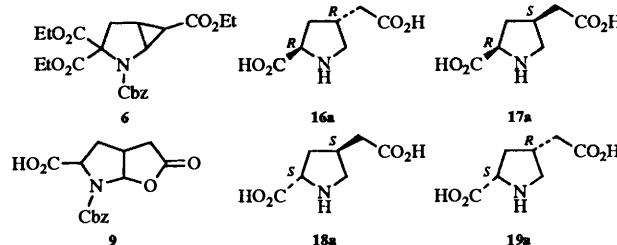
The structures of **3** (expected substitution product) and of **4** (unexpected substitution product) have been determined by means of spectroscopic techniques

1247 Synthesis of enantiomerically pure (*R*)- and (*S*)-2-sulfanylpropanoic acids ('thiolactic acid') from ethyl (*S*)-lactate using pig liver esterase

Reagents and conditions: i, MsCl, NEt<sub>3</sub>, ether; ii, CsSAc, DMF; iii, SOCl<sub>2</sub>; iv, PLE, pH 7.00; v, 2 mol dm<sup>-3</sup> NH<sub>3</sub>

Robert P. Hof and Richard M. Kellogg

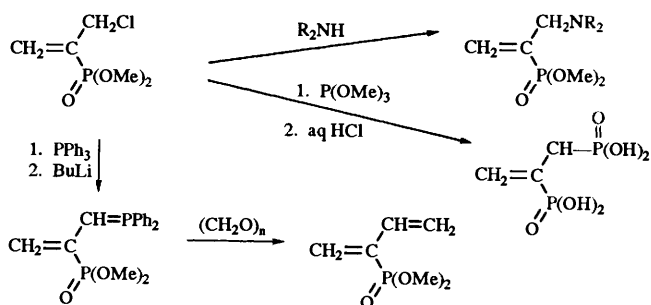
## 1251 Synthesis of all four diastereoisomers of 4-(carboxymethyl)proline, a conformationally constrained analogue of 2-aminoadipic acid



The conversion of 6 into 9 as well as into the four isomers 16a–19a is reported

Roberto Pellicciari, Loredana Arenare, Paolo De Caprariis, Benedetto Natalini, Maura Marinozzi and Alessandro Galli

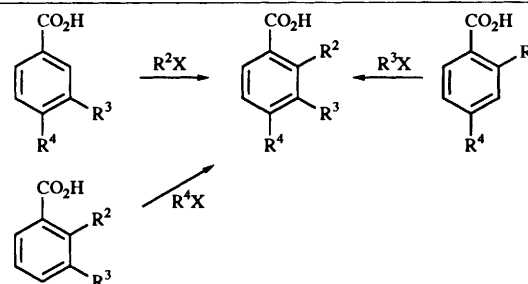
## 1259 Dimethyl 3-chloroprop-1-en-2-ylphosphonate. Part 2. Alkylation of amines, phosphines and phosphites



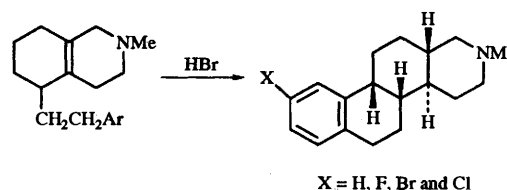
The synthetic versatility of the title phosphonate has been shown by the preparation of various phosphorylated amines

Igor E. Gurevich and John C. Tebby

## 1265 Directed lithiation of unprotected benzoic acids



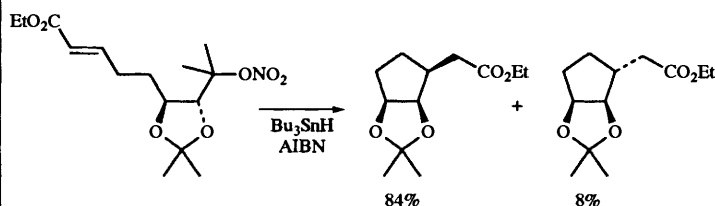
Bernard Bennetau, Jacques Mortier, Joël Moyroud and Jean-Luc Guesnet

1273 (±)-[4aα,4bβ,10bβ,12aβ]-9-Halogeno-2-methyl-1,2,3,4,4a,4b,5,6,10b,11,12,12a-dodecahydronaphtho[2,1-*f*]isoquinolines

Graham L. Patrick

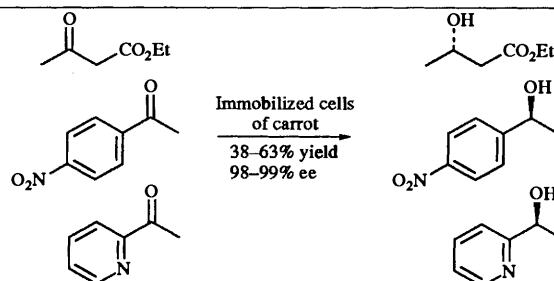
## 1281 Stereocontrol in cyclisation of dioxolanyl radicals

Andrei S. Batsanov, Michael J. Begley,  
Rodney J. Fletcher, John A. Murphy and  
Michael S. Sherburn

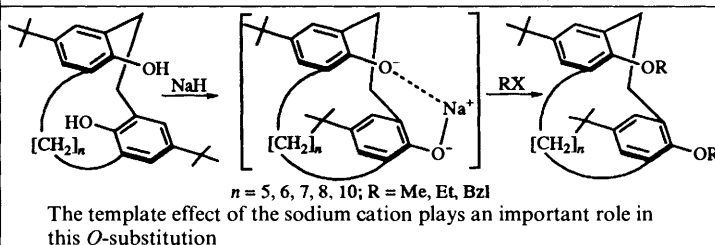


## 1295 Biocatalytic preparation of chiral alcohols by enantioselective reduction with immobilized cells of carrot

Yoshihiko Akakabe, Mirai Takahashi,  
Makoto Kamezawa, Keiichi Kikuchi, Hojun  
Tachibana, Takehiko Ohtani and Yoshinobu  
Naoshima

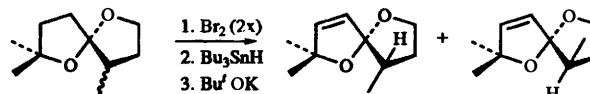
1299 Medium-sized cyclophanes. Part 36. Synthesis and conformational studies of dimethoxy[*m.n*]metacyclophanes

Takehiko Yamato, Jun-ichi Matsumoto,  
Mitsuhiro Sato, Kozo Noda and Masashi  
Tashiro



## 1309 Bromination-dehydrobromination route to some naturally occurring 1,6-dioxaspiro[4.4]-nonenes and -nonadienes

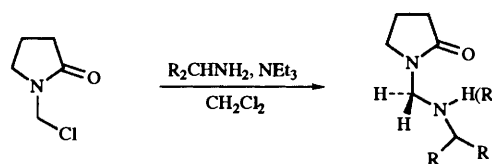
Yong Qiang Tu, Karl A. Byriel, Colin H. L.  
Kennard and William Kitching



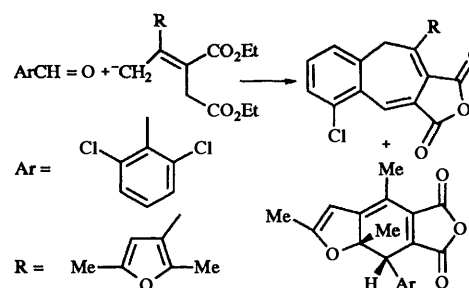
Bromination-dehydrobromination of saturated 1,6-dioxaspiro-[4.4]nonanes afforded a variety of naturally occurring 1,6-dioxaspiro[4.4]nonenes, and can be applied to give unsaturated spiro lactones

1317 Synthesis of *N*-aminomethylpyrrolidin-2-one derivatives

Ping Chen, Dong-Jin Suh and Michael B.  
Smith

1323 Photochromic heterocyclic fulgides. Part 8. The condensation of 2,6-dichlorobenzaldehyde with diethyl [1-(2,5-dimethyl-3-furyl)ethylidene]succinate to give 6-chloro-2-(2,5-dimethyl-3-furyl)-1*H*-benzocycloheptene-3,4-dicarboxylic anhydride and photochromic (7*S*,7*aS*)-7-(2,6-dichlorophenyl)-2,4,7*a*-trimethyl-7,7*a*-dihydrobenzofuran-5,6-dicarboxylic anhydride

Harry G. Heller, Christopher J. Morgan and  
Matthew J. Ottaway



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NOTE: An asterisk in the heading of each paper indicates the author who is to receive any correspondence.

## **Forthcoming Articles in *Perkin Transactions 1***

Synthesis of bridged azabicyclic compounds using radical translocation reaction of 1-(*o*-bromobenzoyl)-2-(prop-2-enyl)pyrrolidines **M. Ikeda, T. Sato, Y. Kugo, E. Nakaumi and H. Ishibashi**

Reactions of aryl *N*-sulfinylamines with 1,4-benzoquinone and 1,4-naphthoquinone. Synthesis of aryl sulfimoyl quinones and their hydrolysis **A.S. Amarasekara and W.W. Pathmasiri**

Electro-organic reactions. Part 42. The diastereoselective cathodic hydrodimerisation of cinnamate esters: preparative aspects **J.H.P. Utley, M. Gullu and M. Motevalli**

Synthesis of chiral hydrazodicarboxylate and azodicarboxylate esters: electrophilic amination reactions of achiral ester and amide enolates **J.C. Vederas, S.-C. Feng, J.M. Harris, E.A. Bolessa and A.J. Mendonca**

Synthesis of macrocyclic hydrazodicarboxylate and azodicarboxylate esters containing a steroid skeleton: an unusual oxidation of bromide to bromine by a strained azodicarboxylate **J.C. Vederas, J.M. Harris and E.A. Bolessa**

Mechanism of directed remote asymmetric reduction of carbonyl groups *via* homochiral boronate esters **A. Whiting, G. Conole, R.J. Mears and H. de Silva**

Isomerisation of 4-aryl-4-methylhex-5-en-2-ones to 5-aryl-4-methylhex-5-en-2-ones by an intramolecular ene-retroene reaction **A. Srikrishna, K. Krishnan and S. Venkateswarlu**

Nickel-catalysed coupling of allyl amines and boronic acids **B.M. Trost and M.D. Spagnol**

Carotenoids and related polyenes. Part 3. First total synthesis of fucoxanthin and halocynthiaxanthin using oxo-metallic catalyst **M. Ito, Y. Yamano and C. Tode**

Biosynthesis of aspinonene, a branched pentaketide related to aspyrone **A. Zeck, R. Thiericke and J. Fuchser**

Design and synthesis of a C<sub>4</sub>-symmetrical hard-soft ditopic metal receptor by a calixarene-porphyrin coupling **S. Shinkai, T. Nagasaki, H. Fujishima and M. Takeuchi**

A phenanthroline quinone methide: synthesis and study of precursors **M. Demeunynck, N. Fixler, H. Salez and J. Lhomme**

Parasite glycoconjugates. Part 3. Synthesis of substrate analogues of early intermediates in the biosynthetic pathway of glycosylphosphatidylinositol membrane anchors **J.S. Brimacombe, S. Cottaz and M.A.J. Ferguson**

Parasite glycoconjugates. Part 4.1. Chemical synthesis of disaccharide and phosphorylated oligosaccharide fragments of *leishmania donovani* antigenic lipophosphoglycan **A.V. Nikolaev, T.J. Rutherford, M.A.J. Ferguson and J.S. Brimacombe**

Synthesis of  $\alpha,\alpha$ -disubstituted acetic acids using low-valent titanium **J.V. Sinisterra, M. Garcia, C. del Campo and E.F. Llana**

Azoles. Part 11. Synthesis of imidazole-2( and -5)-carbaldehydes and derivatives of imidazo[1,2-*b*]isoquinoline; transmetallation reactions of imidazol-5-yl lithium compounds **B. Iddon and A.K. Petersen**

Synthesis and use of some (*E*)-1-ethoxy-3-fluoroalkyl-3-hydroxy-4-(4-methylphenyl)sulfinylbut-1-enes **L. Bruche, P. Bravo, A. Farina, I.I. Gerus, M.T. Kolytcheva, V.P. Kukhar, S. Valdo Meille and F. Viani**

Docetaxel (taxotere) derivatives: novel NbCl<sub>5</sub>-based stereoselective approach to 2-methyl docetaxel **A.E. Greene, J.-N. Denis, A. Fkyerat, Y. Gimbert, C. Coutterez, P. Mantellier and S. Jost**

Some chemistry of 4,5-dichloro-1,2,3-dithiazolium chloride and its derivatives **C.W. Rees and T. Besson**

Synthesis and biological activity of new C-6 and C-7 substituted vinyloxyimino- penicillins and cephalosporins **M.C. Dumasia, M.J. Pearson, G. Burton and J.S. Elder**

Synthesis of trehazolin analogues containing modified sugar moieties **S. Ogawa, S. Watanabe, H. Kitahashi and C. Uchida**

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