

JOURNAL OF THE CHEMICAL SOCIETY

Perkin Transactions 1

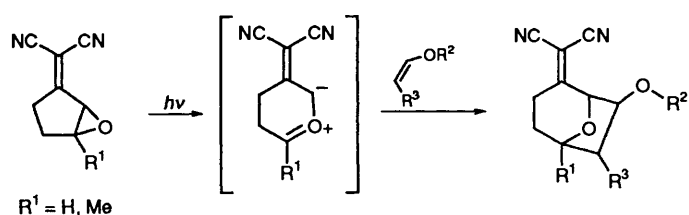
Organic and Bio-organic Chemistry

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Perkin Communications

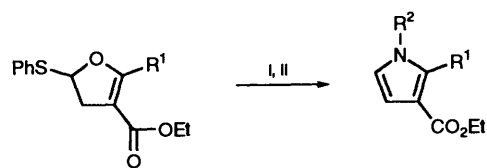
- 2353 **1,3-Dipolar cycloadditions of photoinduced carbonyl ylides from α,β -unsaturated γ,δ -epoxy dinitriles**

Masashi Kotera, Keitaro Ishii, Osamu Tamura and Masanori Sakamoto



- 2355 **Unsaturated sulfoxides in organic synthesis: a new general pyrrole synthesis**

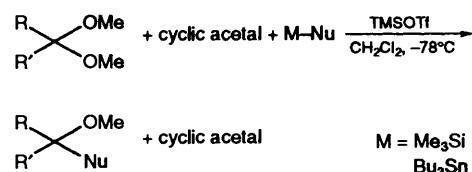
Wing Hong Chan, Albert W. M. Lee, Ka Ming Lee and Tin Yau Lee



Reagents: i, HgCl_2 , $\text{MeCN-H}_2\text{O}$ (3:1), reflux; ii, R^2NH_2

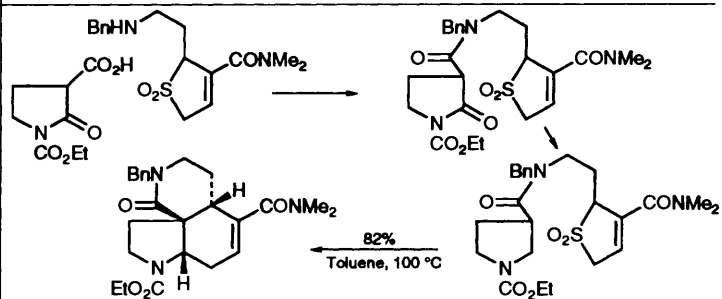
- 2357 **Trimethylsilyl trifluoromethanesulfonate promoted chemoselective reactions of acyclic acetals in the presence of cyclic acetals**

Sunggak Kim, Jung Yun Do, Sung Hoon Kim and Deog-il Kim



- 2359 **A sulfolene-based intramolecular Diels-Alder approach to the synthesis of manzamine A**

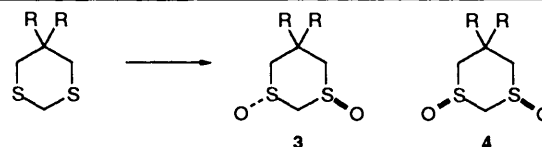
John Leonard, Stephen P. Fearnley, M. Raymond Finlay, John A. Knight and Gordon Wong



Articles

- 2363 **Studies on the oxidation of 1,3-dithiane and 5,5-disubstituted analogues including X-ray crystal structure, equilibration studies and pK_a measurements on selected oxides**

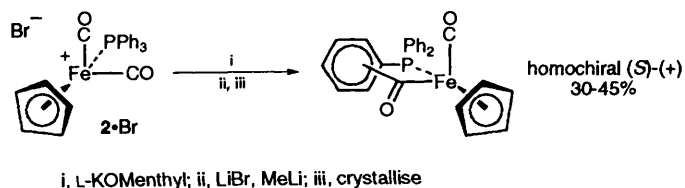
Varinder K. Aggarwal, Ian W. Davies, Richard Franklin, John Maddock, Mary F. Mahon and Kieran C. Molloy



Oxidation of 1,3-dithianes have been explored. The most favourable conditions for obtaining the *trans* dioxide are NaIO_4 or MCPBA for $\text{R} = \text{H}$, and O_3 for $\text{R} = \text{Me, Et}$. The origin of the diastereoselectivity is discussed based on equilibration studies and X-ray analysis. The arguments presented also fit with the pK_a measurements of 3 and 4

- 2369 **A novel one-pot synthesis of homochiral (*R*)-(-) and (*S*)-(+)- $\text{Fe}(\text{CO})(\eta^5\text{-C}_5\text{H}_5)(\text{PPh}_3)\text{-COCH}_3$**

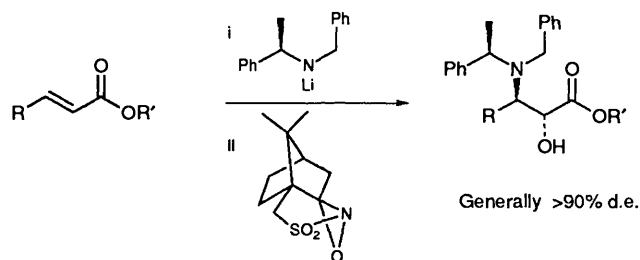
Stephen J. Cook, James F. Costello, Stephen G. Davies and Henry T. Kruk



i, L-KOMentyl; ii, LiBr, MeLi ; iii, crystallise

- 2373 **Asymmetric synthesis of β -amino- α -hydroxy acids *via* diastereoselective hydroxylation of homochiral β -amino enolates**

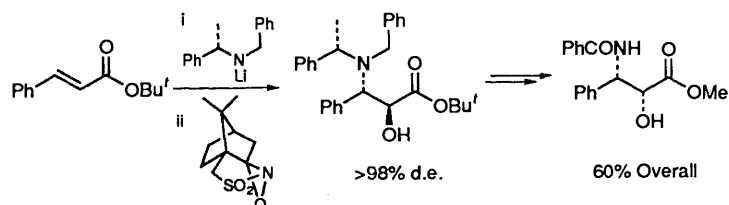
Mark E. Bunnage, Alexander N. Chernega, Stephen G. Davies and Christopher J. Goodwin



A lithium amide conjugate addition–electrophilic hydroxylation protocol provides a practical and efficient strategy for the synthesis of structurally diverse β -amino- α -hydroxy acids and their derivatives

- 2385 **Asymmetric synthesis of the taxol and taxotère C-13 side chains**

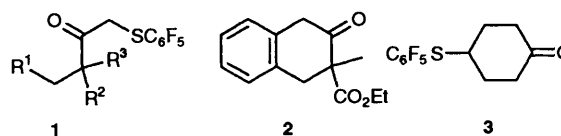
Mark E. Bunnage, Stephen G. Davies and Christopher J. Goodwin



A tandem lithium amide conjugate addition–electrophilic hydroxylation protocol provides a practical and efficient synthesis of the taxol and taxotère side chains

2393 Photochemically induced cyclisation of β -keto sulfides to cycloalkanones

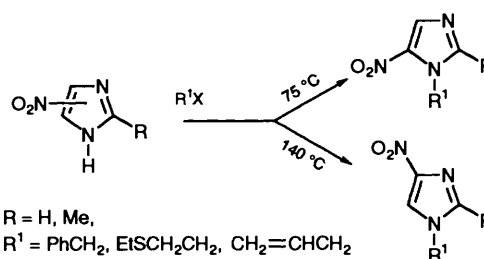
Kamarudin B. Bahari, Dinker J. Deodhar, Masoud-M. Hesabi, John Hill, Mario Kosmirak, Ahmed M'Hamed and Andrew Morley



The keto sulfides (**1**, $R^1 = \text{Ph}$, $R^2 = \text{CO}_2\text{Et}$, $R^3 = \text{Me}$) and (**1**, $R^1 = \text{CH}=\text{CH}_2$, $R^2 = R^3 = \text{H}$) underwent photoinduced cyclisation to cyclohexanone derivatives **2** and **3**, respectively

2399 Regioselective alkylation of 4(5)-nitro-1*H*-imidazoles in acidic media: study of temperature effects

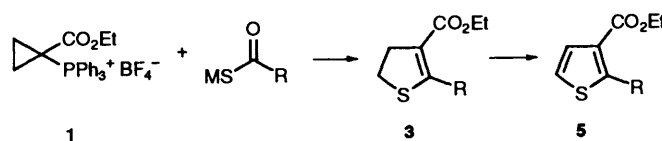
A. K. S. Bhujanga Rao, C. Gundu Rao and B. B. Singh



$R = \text{H, Me}$,
 $R^1 = \text{PhCH}_2, \text{EtSCH}_2\text{CH}_2, \text{CH}_2=\text{CHCH}_2$

2403 Preparation of 2,3-disubstituted-4,5-dihydrothiophenes and thiophenes using the intramolecular non-classical Wittig reaction of thiolcarboxylates

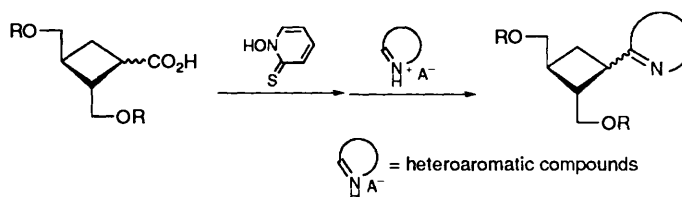
Pallab Chatterjee, Patrick J. Murphy, Rosanna Pepe and Michael Shaw



2-Ethoxycarbonylcyclopropyl(triphenyl)phosphonium fluoroborate **1** reacts with alkali-metal thiolates to give 2,3-disubstituted 4,5-dihydrothiophenes **3** which can be aromatised to the corresponding thiophenes **5**

2407 Reactivity of carbocyclic four-membered radicals for the preparation of carbocyclic analogues of oxetanocins

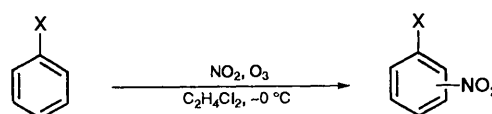
Sachiko Ishigami, Hideo Togo and Masataka Yokoyama



$\text{N}^+\text{A}^- = \text{heteroaromatic compounds}$

2413 Ozone-mediated nitration of benzoic acid, its alkali and alkaline-earth metal salts, ester, acid chloride, nitrile and amide with nitrogen dioxide

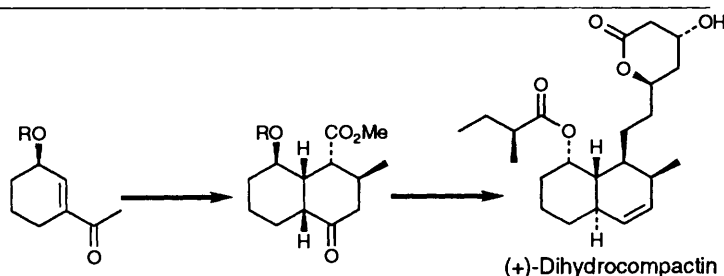
Hitomi Suzuki, Jun-ichiro Tomaru and Takashi Murashima



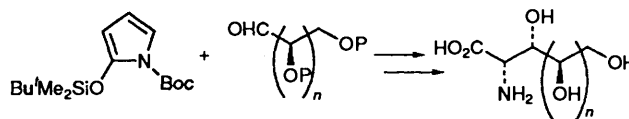
$X = \text{CO}_2\text{H}, \text{CO}_2^-\text{M}^+, \text{COCl}, \text{CN}$ or CONEt_2

2417 Total synthesis of (+)-dihydrocompactin

Hisahiro Hagiwara, Masakazu Kon-no, Takashi Nakano and Hisashi Uda

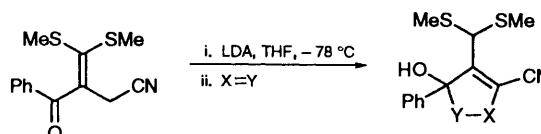


2431 **General approach to hydroxylated α -amino acids exploiting *N*-(*tert*-butoxycarbonyl)-2-(*tert*-butyldimethylsiloxy)pyrrole**



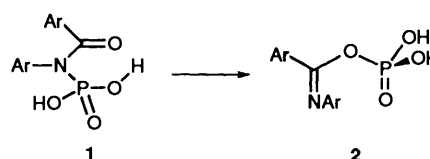
Gloria Rassu, Franca Zanardi, Mara Cornia and Giovanni Casiraghi

2439 **Highly diastereoselective anionic [3 + 2] annulation strategy for functionalized cyclopentenes via α -oxoketene dithioacetals**



Kethiri R. Reddy, L. W. Singh, Hiriyakkanavar Ila and Hiriyakkanavar Junjappa

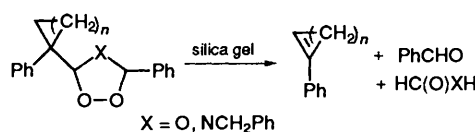
2443 **Phosphorylation of organic compounds by phosphoric anhydride. Part 1. Phosphorylated benzanilides**



Dimitry A. Efremov, Eva A. Oberlander, John C. Tebby, Pavel M. Zavlin and Alexander V. Gribov

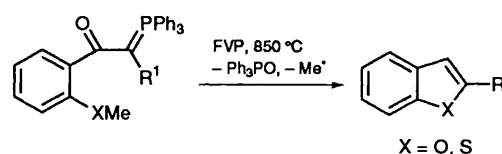
Phosphoric anhydride reacts readily with benzanilides to give initially *N*-phosphorylated benzanilides **1** which rearrange to *E* and *Z* *O*-phosphorylated imidates **2** in the presence of protic compounds

2449 **Synthesis and silica gel-catalysed decomposition of 3-(1-arylcycloalkyl)-substituted 1,2,4-trioxolanes and 1,2,4-dioxazolines**



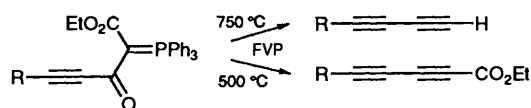
Ryoichi Fukagawa and Masatomo Nojima

2455 **Flash vacuum pyrolysis of stabilised phosphorus ylides. Part 3. Preparation of *o*-methoxyphenyl- and *o*-methylsulfanylphenylalkynes and their cyclisation to benzofurans and benzothiophenes**



R. Alan Aitken and Graham Burns

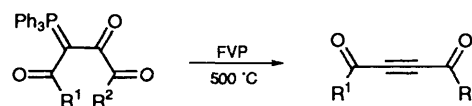
2461 **Flash vacuum pyrolysis of stabilised phosphorus ylides. Part 4. Stepwise construction of terminal 1,3-diyne, conjugated diacetylenic esters and a triacetylenic ester**



R. Alan Aitken and Shirley Seth

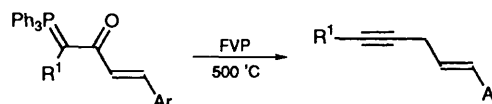
2467 **Flash vacuum pyrolysis of stabilised phosphorus ylides. Part 5. Selective extrusion of Ph_3PO from β,γ,β' -trioxo ylides to give diacylalkynes**

R. Alan Aitken, Hugues Hérion, Amaya Janosi, Nazira Karodia, Swati V. Raut, Shirley Seth, Ian J. Shannon and Fiona C. Smith



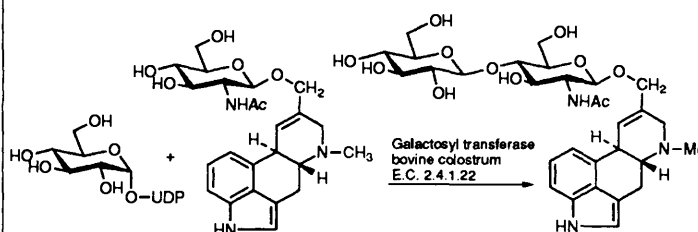
2473 **Flash vacuum pyrolysis of stabilised phosphorus ylides. Part 6. Pyrolysis of substituted cinnamoyl ylides as a route to conjugated enynes**

R. Alan Aitken, Christine Boeters and John J. Morrison



2481 **β -Glucosyl and β -galactosyl transfer catalysed by β -1,4-galactosyltransferase in preparation of glycosylated alkaloids**

Vladimír Křen, Claudine Augé, Petr Sedmera and Vladimír Havlíček



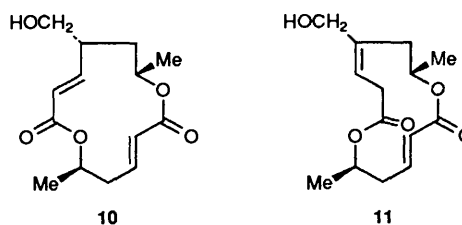
2485 **Asymmetric radical cyclization with pyroglutamate: synthesis of 7-substituted pyrrolizidinones**

Paul F. Keusenkothen and Michael B. Smith



2493 **Bartanol and bartallol, novel macrodiolides from *Cytospora* sp. ATCC 20502**

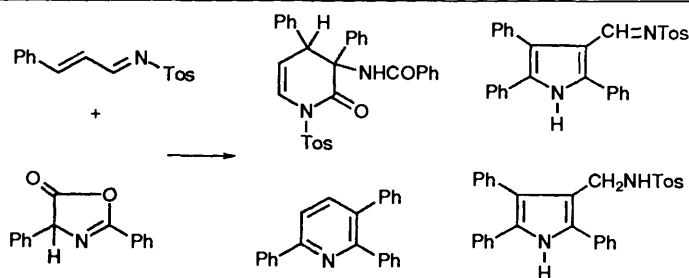
Karen Hanson, John A. O'Neill, Thomas J. Simpson and Christine L. Willis



Bartanol **10** and bartallol **11** are novel 13-membered macrodiolides isolated from a *Cytospora* sp.

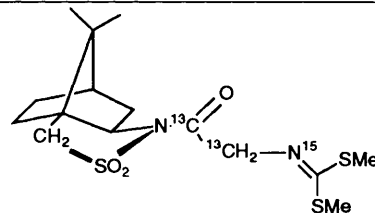
2499 **Reaction of 2,4-diphenyl-4,5-dihydro-1,3-oxazol-5-one with 4-phenyl-*N*-tosyl-1-azabuta-1,3-diene: C=C versus C=N double bond addition**

Piero Dalla Croce, Raffaella Ferraccioli and Concetta La Rosa



- 2503 **Synthesis of amino acid derivatives substituted in the backbone with stable isotopes for application in peptide synthesis**

Leszek Lankiewicz, Barthélemy Nyassé, Bengt Fransson, Leif Grehn and Ulf Ragnarsson



Intermediate used in stereoselective alkylation according to Oppolzer providing the targets in at least 99% ee

Corrigenda

- 2511 **Homolytic reactions of ligated boranes. Part 18. The scope of enantioselective hydrogen-atom abstraction by chiral amine-boryl radicals for kinetic resolution under conditions of polarity reversal catalysis** Hai-Shan Dang, Valérie Diart and Brian P. Roberts
- 2511 **New phenol-containing bis(azacrown ether)s: synthesis and complexing properties** Nikolai G. Lukyanenko, Victor N. Pastushok, Andrei V. Bordunov, Victor I. Vetrogon, Natali I. Vetrogon and Jerald S. Bradshaw

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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*

Structural Studies on Bioactive Compounds. Part 25. Synthesis and Properties of Potential Metabolites of the Diaminopyrimidine Antifolate 2,4-Diamino-5-(3-azido-4-chlorophenyl)-6-ethylpyrimidine (MZPES)
R.J. Griffin and M.F.G. Stevens

The Photocatalysed Addition of Alcohols to 5-Substituted Furan-2(5*H*)-ones: A Novel Synthesis of 2',3'-Dideoxy-3'- α -hydroxymethyl Nucleosides **J. Mann and A.C. Weymouth-Wilson**

On the Stereoselectivity of Nitrene Addition to α -Diphenylphosphinoyl Alkenes
S. Warren, S.K. Armstrong, E.W. Collington and J. Stonehouse

A Polar Cycloaddition of 2-Benzothiopyrylium Salts with Conjugated Dienes **H. Shimizu, S. Miyazaki, T. Kataoka, M. Hori and O. Muraoka**

[1,4] Phenylsulfanyl Migrations in the Rearrangement of 2,4,4-Tris(phenylsulfanyl)butanols **S. Warren and M.-J. Villa**

Selective Activation of Primary Carboxylic Acids by Electron Rich Triarylbi-muthines. Application to Amide and Ester Synthesis under Neutral Conditions **T. Ogawa, T. Hikasa, T. Ikegami, N. Ono and H. Suzuki**

Enhanced Nucleophilicity of Tris(2,6-dimethoxyphenyl)bismuthine as Studied by X-Ray Crystallography. ^{17}O NMR and Theoretical Calculation **T. Ogawa, T. Ikegami, T. Hikasa, N. Ono and H. Suzuki**

Intramolecular Trapping Reactions of Vinylsulfenic Acid Tautomers of Enethiolisable Sulfines
G. Mazzanti, E. van Helvoirt, L.A. van Vliet, R. Ruinaard, S. Masiero, B.F. Bonini and B. Zwanenburg

Carbonyl Oxide Chemistry. Part 3. Regioselectivity of the First [3+2] Cycloaddition of Carbonyl Oxides to Phenyl Isocyanate: One-pot Synthesis of 1,2,4-Dioxazolidin-3-ones **R. Scarpati, M.R. Iesce, F. Cermola, F. Giordano and M.L. Graziano**

Reactions Involving Fluoride Ion. Part 38. New Fluorinated Dienes by Defluorination
R.D. Chambers, M.W. Briscoe, S.J. Mullins, T. Nakamura, J.F.S. Vaughan and F.G. Drakesmith

Reactions Involving Fluoride Ion. Part 39. Reactions of Perfluorinated Dienes with Oxygen and Sulfur Nucleophiles
R.D. Chambers, M.W. Briscoe, S.J. Mullins, T. Nakamura and J.F.S. Vaughan

Isolation and Structure Elucidation of Sesquiterpene Polyesters from *Euonymus sachalinensis*
J. Hohmann, G. Nagy, G. Gunther, G. Argay, A. Kalman and G. Czira

Biosynthesis of (1*S*)-7-Methoxy-1,2-dihydrocadalene. Incorporation of ^2H and ^{13}C Labelled Mevalonates by Cultured Cells of *Heteroscyphus planus* **K. Nabeta, T. Ishikawa, T. Kawae and H. Okuyama**

Enantio- and Diastereo-selective Synthesis of Spirocyclic Compounds **H. Suemune, K. Maeda, K. Kato and K. Sakai**

Formal Synthesis of the Juglomycins **M.A. Brimble and E. Ireland**

Boron Halide Catalysed Regioselective *ortho*-Claisen Rearrangements of 4-Allyloxycoumaric Acid Derivatives: Total Synthesis of Demethylsuberosin **N. Cairns, L.M. Harwood, D.P. Astles and A. Orr**

Tandem Thermal Claisen-Cope Rearrangements of Coumarate Ester Derivatives. Total Syntheses of the Naturally Occurring Coumarins: Suberosin, Demethylsuberosin, Ostruthin, Balsamiferone and Gravelliferone
N. Cairns, L.M. Harwood and D.P. Astles

Asymmetric Induction in the Electrocyclisation Reactions of 1,3 Dipolar Intermediates: the 1,7 Cyclisation of Diene-conjugated Diazo-compounds to give 1*H*-2,3-Benzodiazepines **J.T. Sharp, A.J. Blake and M. Harding**

A New Route to Oxazolidinones **M. Le Corre and D. Delaunay**

Complementary Enantioselective Approaches to the Quinolizidine Alkaloids Lupinine and Epilupinine by Enolate Claisen Rearrangements or Direct Alkylation of Piperidine-2-acetic Acid Derivatives **D.W. Knight, C. Morley and A.C. Share**