

JOURNAL OF THE CHEMICAL SOCIETY

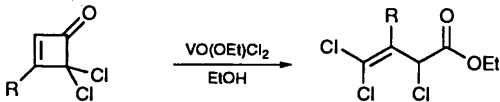
Perkin Transactions 1

Organic and Bio-organic Chemistry

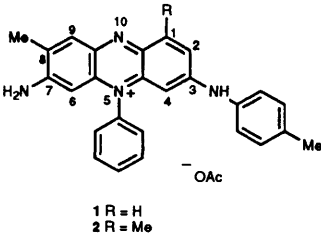
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Perkin Communications

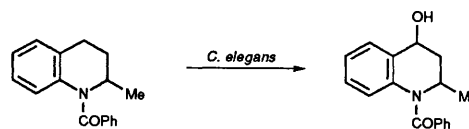
<p>1 Use of zinc borohydride in reductive amination: an efficient and mild method for <i>N</i>-methylation of amines</p> <p>Sukanta Bhattacharyya, Arindam Chatterjee and Shiti Kantha Duttachowdhury</p>	$R^1R^2NH + (HCHO)_n \rightarrow R^1R^2NMe$ <p>$R^1 = \text{alkyl or aryl}$ $R^1 = \text{alkyl or aryl}$ $R^2 = \text{alkyl or H}$ $R^2 = \text{alkyl or Me}$</p>
<p>3 A novel regioselective ring-opening oxidation of cyclobutenones with $VO(OEt)Cl_2$</p> <p>Toshikazu Hirao, Takashi Fujii, Toshihiko Tanaka and Yoshiki Ohshiro</p>	

Articles

<p>5 What did W. H. Perkin actually make when he oxidised aniline to obtain Mauveine?</p> <p>Otto Meth-Cohn and Mandy Smith</p>	 <p>Perkin's Mauveine is shown to be a mixture of two main dyes, 1 and 2 and not the long accepted structure 7-amino-3-anilino-2,8-dimethyl-5-(4-tolyl)phenazinium acetate</p> <p>1 R = H 2 R = Me</p>
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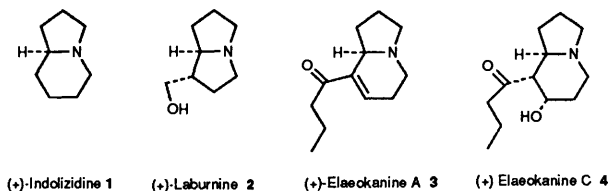
- 9 **Microbiological transformations. Part 12. The stereochemistry of some derivatives of 2,6-dimethyl-1,2,3,4-tetrahydroquinolin-4-ol. Single crystal X-ray analyses of *cis*- and *trans*-1-benzoyl-4-benzoyloxy-2,6-dimethyl-1,2,3,4-tetrahydroquinoline**

Trevor A. Crabb, Lesley M. Canfield and David Bowen



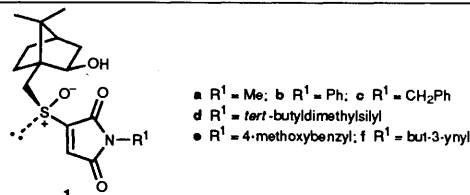
- 15 **Enantioselective synthesis of (+)-indolizidine, (+)-laburnine and (+)-elaecanines A and C using the Diels–Alder reaction of α -(2-*exo*-hydroxy-10-bornylsulfinyl)maleimide**

Yoshitsugu Arai, Tohru Kontani and Toru Koizumi



- 25 **Asymmetric Diels–Alder reaction of optically active α -(2-*exo*-hydroxy-10-bornyl)-sulfinylmaleimides and its application to optically active 5-functionalised pyrrolines via retro-Diels–Alder reaction**

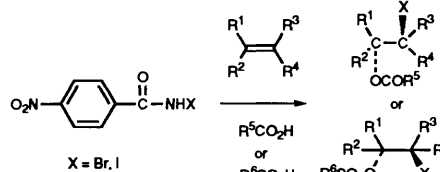
Yoshitsugu Arai, Makoto Matsui, Akihito Fujii, Tohru Kontani, Toshiyuki Ohno, Toru Koizumi and Motoo Shiro



Chiral sulfinyl maleimides **1a–f** are synthesized in high yields and react readily with a variety of dienes to give Diels–Alder adducts with high diastereoselectivity under specified conditions

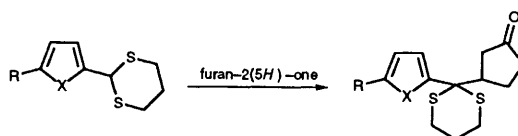
- 41 **Addition of acyl and sulfonyl hypohalites generated from *N*-halogeno amides to alkenes: synthesis of *trans*-*vic*-halogeno esters and their conversion into *cis*-1,2-diols**

André Goosen, Eric Hoffmann and Benjamin Taljaard



- 45 **Conjugate addition of 2-heteroaryl-1,3-dithianes to furan-2(5*H*)-one**

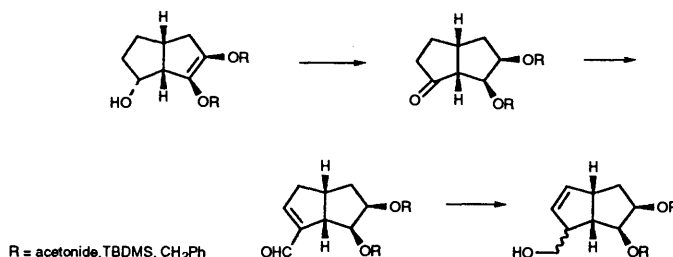
Manuel Medarde, Angel C. Ramos, Rafael Peláez-Lamamié de Clairac, Esther Caballero and Arturo San Feliciano



2-Heteroaryl substituents facilitate the conjugate addition of 1,3-dithianes to furan-2(5*H*)-one

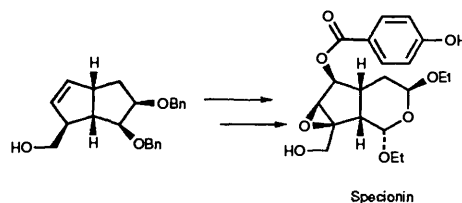
- 49 **Studies on the functionalisation of *cis*-bicyclo[3.3.0]oct-7-en-2-ol—approaches to the synthesis of specionin**

John Leonard and Nigel Hussain



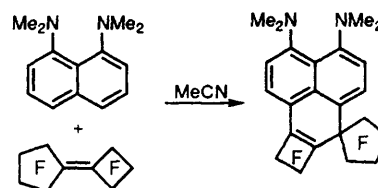
61 Total synthesis of (\pm)-specionin

John Leonard and Nigel Hussain



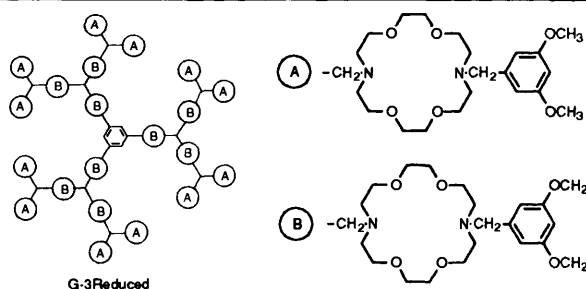
71 Reactions involving fluoride ion. Part 36. Aromatic amines as carbon nucleophiles in reactions with unsaturated fluorocarbons

Richard D. Chambers, Stewart R. Korn and Graham Sandford



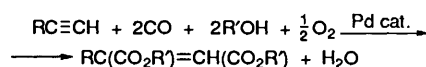
75 Synthesis, metal-binding properties and polypeptide solubilization of 'crowned' arborols

Takeshi Nagasaki, Onari Kimura, Masakatsu Ukon, Susumu Arimori, Itaru Hamachi and Seiji Shinkai



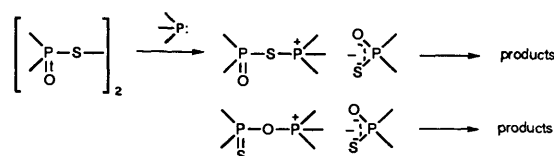
83 An efficient and selective palladium-catalysed oxidative dicarbonylation of alkynes to alkyl- or aryl-maleic esters

Bartolo Gabriele, Mirco Costa, Giuseppe Salerno and Gian Paolo Chiusoli



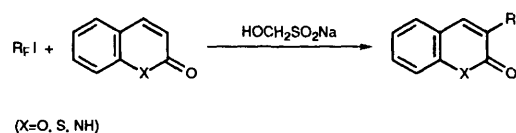
89 Reaction of three-coordinate phosphorus compounds with organophosphorus pseudohalogens 3. Phosphonium and phosphorane intermediates in the desulfurization and deoxygenation of bis(phosphinoyl) disulfides. Influence of Lewis acids on the reaction chemoselectivity

Ewa Krawczyk, Aleksandra Skowrońska and Jan Michalski



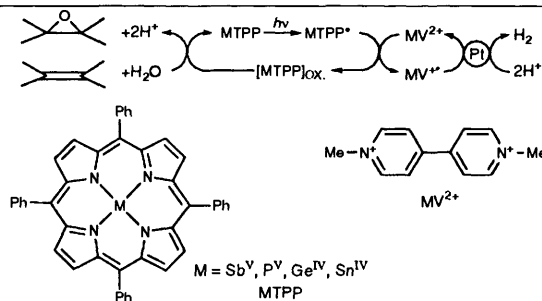
101 Studies on sulfinatodehalogenation. Part 30. Synthesis of 3-perfluoroalkylated coumarins, thiocoumarins and 2-quinolones by direct perfluoroalkylation with perfluoroalkyl iodides and sodium hydroxymethanesulfinate

Bing-Nan Huang, Jin-Tao Liu and Wei-Yuan Huang



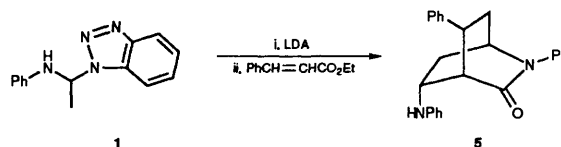
- 105 **Photochemical epoxidation of cyclohexene sensitized by tetraphenylporphyrinato-antimony(V) in the presence of water acting both as an electron and an oxygen donor**

Haruo Inoue, Takanobu Okamoto, Yohji Kameo, Makoto Sumitani, Akie Fujiwara, Daisuke Ishibashi and Mitsuhiro Hida



- 113 **Variable regioselectivity in reactions of *N*-lithio-*N*-vinylaniline with arenedicarboxylates and α,β -unsaturated esters**

Alan R. Katritzky, Daniela C. Oniciu, Balbino Mancheño and Richard A. Barcock



- 119 **New synthetic applications of sialic acid aldolase, a useful catalyst for KDO synthesis. Relation between substrate conformation and enzyme stereoselectivity**

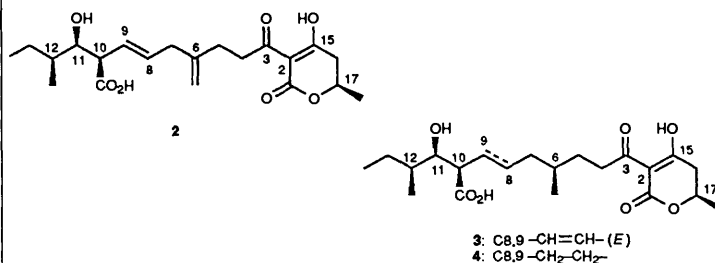
Udo Kragl, Astrid Gödde, Christian Wandrey, Nadège Lubin and Claudine Augé



Stereoselectivity in sialic acid aldolase-catalysed additions depends on the conformation and on the orientation of the 3-hydroxy group of the substrate: KDN, KDO and 4-*epi*-KDO-type products are obtained

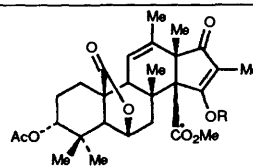
- 125 **Structures and stereochemistries of new compounds related to alternaric acid**

Hiroyasu Tabuchi and Akitami Ichihara



- 135 **Biosynthetic studies on citreohybridones, metabolites of a hybrid strain KO 0031 derived from *Penicillium citreo-viride* B. IFO 6200 and 4692**

Seiji Kosemura, Hiroshi Miyata, Shosuke Yamamura, Kumyul Albone and Thomas J. Simpson

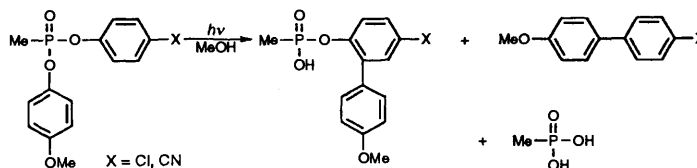


Citreohybridones
(R = Me or Ac)

The citreohybridones have been biosynthesised *via* a mixed polyketide-terpenoid (meroterpenoid) pathway

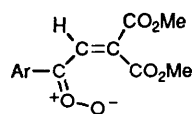
- 141 **Photolysis of 4-methoxyphenyl aryl alkylphosphonates**

Mitsunobu Nakamura, Kouiti Sawasaki, Yoshiaki Okamoto and Setsuo Takamuku



147 **Carbonyl oxide chemistry. Part 2. Substituent and solvent effects on the chemical behaviour of carbonyl oxides**

M. Rosaria Iesce, Flavio Cermola, M. Liliana Graziano and Rachele Scarpati



1 Ar = Ph or *p*-BrC₆H₄ or *p*-MeOC₆H₄

The factors determining the dynamic chemistry of the carbonyl oxides **1** have been studied

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Forthcoming Articles in *Perkin Transactions 1*

A Diastereoselective Approach to α -Allyl- β -amino Acids using the Ireland Enolate Claisen Rearrangement **C.P. Dell, K.M. Khan and D.W. Knight**

A Short Synthesis of the Frenolicins **M.A. Brimble and S.M. Lynds**

Synthesis of *trans*- and *cis*-14-Phenylsulfonyl-1,7,9-trioxadispiro[5.1.5.3]hexadecane **M.A. Brimble and C.J. Rush**

Asymmetric Synthesis of (+)-Monomorine I Utilizing Diastereoselective Reaction of 1,3-Oxazolidine with Grignard reagent **K. Higashiyama, K. Nakahata and H. Takahashi**

Recognition of the Cell-wall Binding Site of Vancomycin-group Antibiotics by Unnatural Structural Motifs: ^1H NMR Studies of the Effects of Ligand Binding on Antibiotic Dimerisation **P. Groves, M.S. Searle, I. Chicarelli-Robinson and D.H. Williams**

The 'Inverse Electron-demand' Diels-Alder Reaction in Polymer Synthesis. Part 1. A Convenient Synthetic Route to Diethynyl-aromatic Compounds **B.J.L. Royles and D.M. Smith**

The Use of Diazophosphonates in the Synthesis of Cyclic Ethers. Part 2. Synthesis of the Pyrano-oxepane and Oxepano-oxepane Subunits of Marine Polyether Toxins **C.J. Moody, E.-R.H.B. Sie and J.J. Kulagowski**

The Chemical Synthesis of Disaccharides which are Partial Structures of the Glycosaminoglycan Heparan Sulfate **N.J. Davis and S.L. Flitsch**

A Novel Oxidative Rearrangement of a Pentasubstituted Pyrrole to an Unsaturated Hydroxy γ -Lactam **P.A. Procopiou and R.M. Highcock**

Influence of the Nature of the Group at C-2 on its Cleavage from Imidazolium Relative to Attack at the Ring by Nucleophiles. Transfer of Alkoxy-carbonyl from Alkyl Imidazolium-2-carboxylates to Benzyl Alcohol, a Cyclohexanone Enamine and Diethylamine **C. Bakhtiar and E.H. Smith**

A New and Effective Method for the Low Temperature Generation of Sulfonium Ylides from Allyl Sulfides **R.C. Hartley and S. Warren**

Syntheses and Characterization of New Polyethylenoxy Substituted Salicylaldehyde Schiff-bases and Some Corresponding Reduced Tetra- and Penta-aza Ligands and Their Gd^{III} -complexes. New Potential Contrast Agents in Magnetic Resonance Imaging **O. Kocian, K.W. Chiu, R. Demeure, B. Gallez, C.J. Jones and J.R. Thornback**

Cobalt-mediated Reactions. Inter- and Intra-molecular Additions of Carbamoyl Radicals to Alkenes in the Synthesis of Amides and Lactams **G.B. Gill, G. Pattenden and S.J. Reynolds**

Formal Synthesis of (+)-Thienamycin based on a New Approach to β -Lactams via 4-*exo-trig* Cyclisation of Carbamoylcobalt Salophens **G. Pattenden and S.J. Reynolds**

Synthesis of 3'-Fluoromethylthio-, 3'-Fluoromethylsulfinyl- and 3'-Fluoromethylsulfonyl Substituted 3'-Deoxythymidine **P. Herdewijn, A. De Bruyn, P. Wigerinck, C. Hendrix, L. Kerremans, J. Rozenski and R. Busson**

Syntheses of Flosequinan-A Novel 4-Quinolone Shown to be Useful in Congestive Heart Failure **A.M. Birch, R.V. Davies (the late) L. Maclean and K. Robinson**

The Synthesis of Acylsilanes from Amides and Esters, and the Selective Oxidation of α -Silyl Alcohols to Aldehydes **I. Fleming and U. Ghosh**

Chemical Behaviour of Trimethylammonium N-Methylides substituted with Nitrogen-containing Heteroaromatic Rings. Rearrangement of N,N-Dimethyl(pyridylmethyl)ammonium, N,N-Dimethyl-1-methyl(pyrrrolylmethyl)ammonium and N,N-Dimethyl-1-methyl(indolylmethyl)ammonium N-Methylides **Y. Maeda, N. Shirai and Y. Sato**

Diels-Alder Additions to 1-Phenyl-2-benzopyran-3-one and Transformations of the Adducts; Model Experiments for Podophyllotoxin Synthesis **D.W. Jones**

Incorporation of Label from $^{18}\text{O}_2$ into Acetate during Side-chain Cleavage Catalysed by Cytochrome P-450 $_{17\alpha}$ (17 α -hydroxylase-17,20-lyase) **M. Akhtar, D.L. Corina, (the late) S.L. Miller, A.Z. Shyadehi and J.N. Wright**

