JOURNAL OF THE CHEMICAL SOCIETY

PERKIN TRANSACTIONS I Organic and Bio-organic Chemistry

CONTENTS

The reactions of 5α -allyl-1,1-ethylenedioxy- 5β ,9 β -dimethyl-trans-decalin-6-one, a potential intermediate in the synthesis of friedolabdanes	PAGE
By Angel Ardon-Jimenez and Thomas G. Halsall	1461
Reactions with arenesulphonyl azides of some indoles with oxygen- and nitrogen-containing substituents By A. Sydney Bailey, Christopher M. Birch, David Illingworth, and Janet C. Willmott	1471
Sporidesmins. Part 17. Isolation of sporidesmin H and sporidesmin J By R. Rahman, S. Safe, and A. Taylor	1476
Indane 3a,4-oxide: formation by isomerisation of indane 3a,7a-oxide and confirmation of structure by an alternative synthesis By Stephen G. Davies and Gordon H. Whitham	1479
Cleavage of vicinal diols by iodine triacetate and iodine(I) acetate By Richard C. Cambie, David Chambers, Peter S. Rutledge, and Paul D. Woodgate	1483
Natural acetylenes. Part 53. A route to C_5 , C_6 , and C_7 cis- and trans-alk-3-en-1-ynes via their trimethylsilyl derivatives By IAIN W. FARRELL, MILTON T. W. HEARN, and VIKTOR THALLER	1485
Natural acetylenes. Part 54. Polyacetylenes from fungal cultures of some tricholomataceae and corticiaceae species By Mahtabuddin Ahmed, John W. Keeping, Theodore A. Macrides, and Viktor Thaller	1487
3,7-Bis(hydroxymethyl)-1-benzoxepin-5(2H)-one, a novel oxygen heterocyclic metabolite from cultures of the fungus Marasmiellus remealis (Bull. ex Fr.) Singer By John K. Holroyde, Alex F. Orr, and Viktor Thaller	
The synthesis of some compounds related to muscarine By Kenneth Bowden and Brian H. Warrington	1493
Synthetic studies on the heterocyclic nucleus of the cytochalasans By Christopher Owens and Ralph A. Raphael	1504
The acetoxyfulvene synthesis of prostaglandins. Part 1. Synthesis of the Corey aldehyde By Edward D. Brown, Richard Clarkson, Timothy J. Leeney, and Graham E. Robinson	1507
Carotenoids and related compounds. Part 35. Synthesis of (±)-azafrin methyl ester and other α-glycols By Muhammad Akhtar, A. Erol Faruk, C. John Harris, Gerard P. Moss, Stephen W. Russell, and Basil C. L. Weedon	1511
Studies of oxazolobenzodiazepines. Part 7. Synthesis of 3-methyloxazolo[3,2-d][1,4]benzodiazepines and configurational studies of their ketimine intermediates By Ryuji Tachikawa, Tetsuo Miyadera, Chihiro Tamura, Atsusuke Terada, Shunji Naruto, and Eiichi Nagamatsu.	

	2102
Hydroxy-steroids. Part 20. Distinction between 19-norergosta-5,7,9-trien-3β-ol (dihydroneoergosterol) and its 3α-epimer By Gerald Felsky, Peter M. Fredericks, and G. Denis Meakins	1529
Hydroxy-steroids. Part 21. The preparation and proton nuclear magnetic resonance spectra of 19-norergosta-3,5,7,9,22-pentaene and -3,5,7,9-tetraene, 7-methoxy-1,2-dihydronaphthalene, and deuteriated derivatives	
By T. Geoffrey C. Bird, Gerald Felsky, and G. Denis Meakins	1533
Steroidal analogues of unnatural configuration. Part 13. Synthesis and ring B reactions of 4,4,9-trimethyl-9 β ,10 α -estr-5-ene By James R. Bull, Jan Floor, and Albert Tuinman	1537
Studies on the conformational transitions of rat skin collagen using a spin-label probe By Milton T. W. Hearn, Michael L. Jenkinson, Donald B. Myers, and Barry M. Peake	1542
Benzoyl-substituted thiirans and oxathioles. The synthesis and properties of 2-benzoyl-5-phenyl-1,3-oxathiole	1547
By Ulla Jacobsson Kempe, Tomas Kempe, and Torbjörn Norin	1547
Photochemistry of 7-syn-isobutylnorborn-2-en-2-yl methyl ketone. Intramolecular hydrogen abstraction in an α,β -unsaturated ketone with geometrically equivalent α - and β -carbon atoms By Brian Byrne, Charles A. Wilson, II, Steven Wolff, and William C. Agosta	1550
Structural elucidation of a new group of secostictane triterpenoids By Eng Meng Goh, Alistair L. Wilkins, and Patrick T. Holland	1560
The oxyallyl cation in synthesis: preparation of analogues of cocaine By Antony P. Cowling and John Mann	1564
Cycloadditions to conjugated diallenes By Charles Boan and Lars Skattebøl	1568
Antitumour plants. Part 6. Novel modified germacranolides and other constituents of <i>eremanthus elaeagnus</i> Schultz-Bip (Compositae) By Philip W. Le Quesne, Steven B. Levery, Mary D. Menachery, Thomas F. Brennan, and Robert F. Raffauf	
The reactions of aryloxysulphoxonium salts with amines and other nucleophiles By G. Roger Chalkley, David J. Snodin, Graham Stevens, and Mark C. Whiting	1580
Synthesis of some 2-phenylpyrrole derivatives By John W. ApSimon, David G. Durham, and Alun H. Rees	1588
Alkylated steroids. Part 2. 16\(\alpha\),17\(\alpha\)-Dimethylpregnanes functionalised in ring c By James Cairns, (the late) Colin L. Hewett, Robert T. Logan, George McGarry, Robert G. Roy, Donald F. M. Stevenson, and Gilbert F. Woods	1594
Further polyacetylenes from <i>Polyporus anthracophilus</i> : specific incorporation of [1-14C]matricaria esters into polyacetylenic metabolites of this fungus By David G. Davies, Philip Hodge, Paul Yates, and Malcolm J. Wright	1602
Rearrangement of epoxides. Part 2. The preparation and rearrangement of some epoxides of 2,2-dimethylbicyclo[4.3.0]non-1(9)-enes carrying substituents at C(3) and C(6) By Thomas G. Halsall, Philip J. McHale, and Antonio Morales Mendez	1606
Steroidal heterocycles: 2'-thiocyanatoandrosteno-[3,2-d]pyrimidines and -[17,16-d]pyrimidines By Joginder S. Bajwa and Peter J. Sykes	1618
The isolation and structures of the fungal metabolites lapidosin and diversonol By W. Brian Turner	1621
Evidence of a dissociative $S_N1(P)$ mechanism of phosphoryl transfer by rabbit muscle pyruvate kinase By Gordon Lowe and Brian S. Sproat	1622
Rhodium(I)-catalysed dimerisation of terminal acetylenes at ambient temperature and pressure By LAURENCE CARLTON and GORDON READ	1631

Contents	iii
Oxidation and isomerisation of colupulone; the separation and structures of two transformation products	age 33
Enzymes in organic synthesis. Influence of substrate structure on rates of horse liver alcohol dehydrogenase-catalysed oxidoreductions By Anthony J. Irwin, Kar P. Lok, Ketz W-C. Huang, and J. Bryan Jones	36
On steroids. Part 209. Formation of 6β-bromo-5-chloro-5α-cholestan-3β-ol on addition of bromine chloride to cholesterol By Alexander Kasal	
Organic synthesis with sulphones. Part 14. Nucleophilic substitution of styryl sulphones; a new route to arylacetaldehydes By Marc Julia, Anne Righini, and Daniel Uguen	
Synthesis of unsaturated 5-hydroxy- and 7-oxo-acids by addition of unsaturated carboxylic acid dienolates to carbonyl compounds By Ismael Casinos and Ramón Mestres	51
Analysis of petroporphyrins by chemical ionsiation mass spectrometry By George J. Shaw, J. Martin E. Quirke, and Geoffrey Eglinton	55
Wittig condensation products from nickel meso-formyl-octaethylporphyrin and -aetioporphyrin I and some cyclisation reactions By Dennis P. Arnold, Richard Gaete-Holmes, Alan W. Johnson, Andrew R. P. Smith, and Geoffrey A. Williams	60
Quadrigemines-A and -B, two minor alkaloids of <i>Hodgkinsonia frutescens</i> F. Muell By Keith P. Parry and George F. Smith	71
Reactions of relevance to the chemistry of aminoglycoside antibiotics. Part 9. New reagents for amination of the ethylenic linkage By Derek H. R. Barton, Michael R. Britten-Kelly, and Daneel Ferreira	882