

JOURNAL OF THE CHEMICAL SOCIETY

Perkin Transactions 1

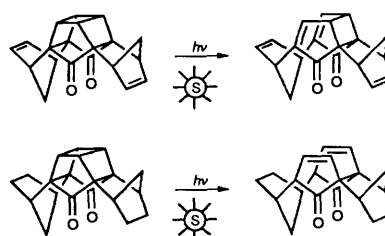
Organic and Bio-organic Chemistry

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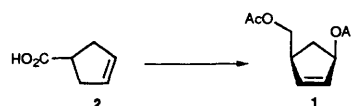
- 1539 **Stereoelectronic control of Cope rearrangement energetics through remote double bonds in novel, rigid polycyclic frames**

Goverdhan Mehta, S. Hari Krishna Reddy, Vasantha Pattabhi, S. Bhanumathi, Animesh Pramanik and Jayaraman Chandrasekhar



- 1543 **Regio- and stereo-specific synthesis of *cis*-(±)-1-acetoxy-4-(acetoxymethyl)cyclopent-2-ene: a key intermediate in the synthesis of carbocyclic nucleosides and *pseudo*-ribofuranoses**

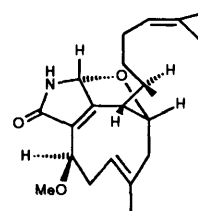
David M. Hodgson, Jason Witherington and Brian A. Moloney



A concise regio- and stereo-specific synthesis of the *cis*-diacetate 1 from the acid 2 is described

- 1545 **Joalin, the first nitrogen-containing xenicane diterpene isolated from a brown seaweed collected off the Senegalese coast**

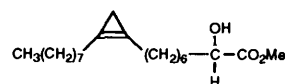
Graziano Guella, Ibrahima N'Diaye, Giuseppe Chiasera and Francesco Pietra



Joalin isolated from a *Dictyota sp.*, collected along the coasts of Senegal, is a rare xenicane-derived diterpene containing nitrogen

- 1547 **A new approach to cyclopropene fatty acids involving 1,2-deiodination**

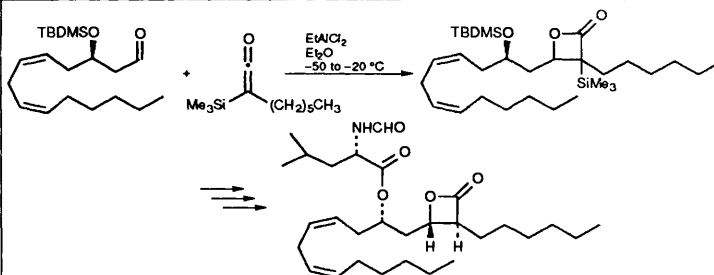
Mark S. Baird and Brendan Grehan



Methyl sterculate and methyl 2-hydroxysterculate (above) have been obtained by 1,2-deiodination of the corresponding diiodocyclopropanes with butyllithium at low temperature

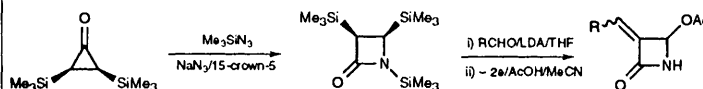
- 1549 **An approach to the synthesis of (–)-lipstatin by Wittig reaction and Lewis acid-promoted [2 + 2] cycloaddition**

Jean-Marc Pons, Agnès Pommier, Joan Lerpiniere and Philip Kocienski



- 1553 **A novel synthetic intermediate in β -lactam chemistry: an efficient preparation of *cis*-1,3,4-tris(trimethylsilyl)azetidin-2-one and its transformation into 4-acetoxy-3-alkylideneazetidin-2-ones**

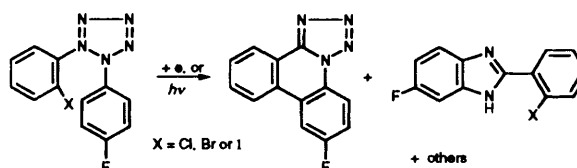
Kohji Suda, Katsumi Hotoda, Fumiaki Iemuro and Toshikatsu Takunami



Articles

- 1557 **Cyclizations. Part 1. Electrochemical and photochemical reactions of 1-(4-fluorophenyl)-5-(2-halogenophenyl)tetrazoles**

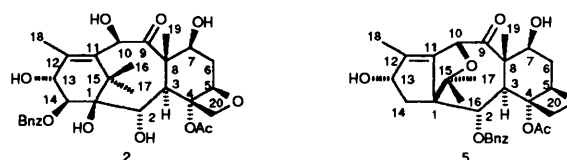
Shileen Donnelly, James Grimshaw and Jadwiga Trocha-Grimshaw



Major and minor reaction products have been characterized

- 1563 **New oxetane-type taxanes from *Taxus wallichiana* Zucc.**

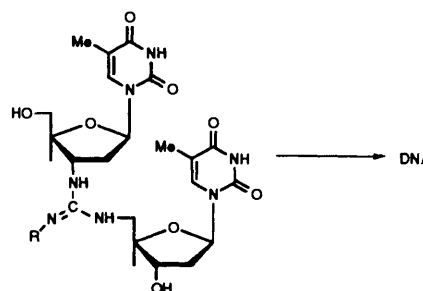
Giovanni Appendino, Hasan Çetin Özen, Pierluigi Gariboldi, Elisabetta Torregiani, Bruno Gabetta, Rita Nizzola and Ezio Bombardelli



The structures of the novel oxetane-type taxane diterpenoids **2** and **5** have been established on the basis of their spectroscopic data and chemical reactions

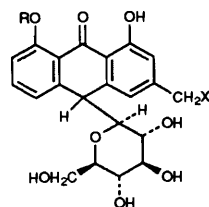
- 1567 **Synthesis, enzymatic stability and base-pairing properties of oligothymidylates containing thymidine dimers with different *N*-substituted guanidine linkages**

Frank Vandendriessche, Arthur Van Aerschot, Martine Voortmans, Gerard Janssen, Roger Busson, An Van Overbeke, Walter Van den Bossche, Jos Hoogmartens and Piet Herdewijn



1577 **Conformational studies of natural products. Part 4. Conformation and absolute configuration of cascarosides A, B, C, D**

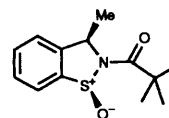
Paolo Manitto, Diego Monti, Gioyanna Speranza, Nadia Mulinacci, Franco F. Vincieri, Alberto Griffini and Giorgio Pifferi



4 R = β -D-Glcp X = OH
5 R = β -D-Glcp X = H

1581 **Recoverable chiral sulfoxides for asymmetric synthesis: Preparation, regeneration and application to the asymmetric aldol reaction**

Roger J. Butlin, Ian D. Linney, Douglas J. Critcher, Mary F. Mahon, Kieran C. Molloy and Martin Wills

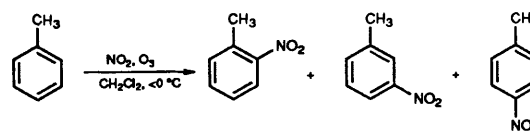


S_(S)R_(R)-(+)-**4**

Compound **4** has been employed for the asymmetric synthesis of β -hydroxy esters in >92% e.e.

1591 **Ozone-mediated nitration of alkylbenzenes and related compounds with nitrogen dioxide**

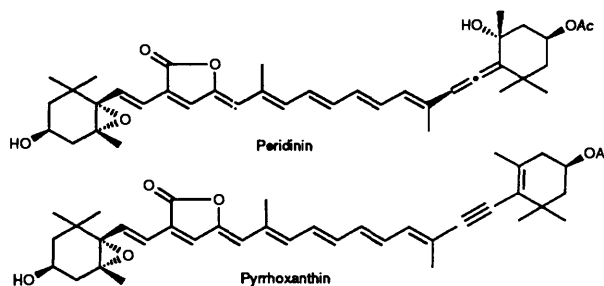
Hitomi Suzuki, Takashi Murashima, Iku Kozai and Tadashi Mori



$o : m : p = 57 : 3 : 40$

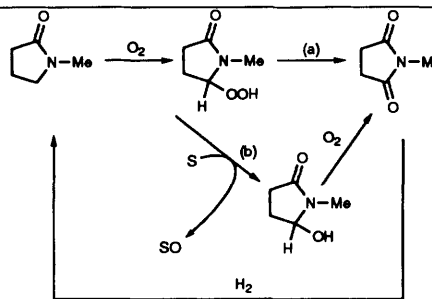
1599 **First total synthesis of (\pm)-peridinin, (\pm)-pyrrhoxanthin and the optically active peridinin**

Yumiko Yamano and Masayoshi Ito



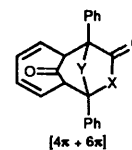
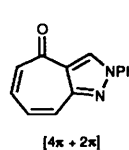
1611 **Regenerable N-alkylamide hydroperoxide for catalytic substrate oxidation**

Douglas E. Patton and Russell S. Drago



1617 **Heterocycles by cycloaddition. Part 11. Dipolar cycloadditions of mesoionic compounds with tropone: *peri*-Selective $[4\pi + 2\pi]$ and $[4\pi + 6\pi]$ cycloadditions**

Hiroshi Kato, Tomoshige Kobayashi, Kazuhiko Tokue and Sonoko Shirasawa

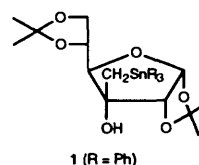


X = Y = S
X = NPh, Y = O

The $[4\pi + 6\pi]$ cycloadducts have been formed for the first time from mesoionic compounds

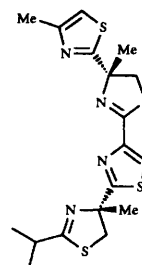
- 1621 **C-Stannylated carbohydrate derivatives, Part 5. 1,2:5,6-Di-*O*-isopropylidene-3-*C*-(organostannyl)- and -3-*C*-(phenylstannyl)methyl- α -D-allofuranose compounds. X-Ray crystal and molecular structure of 1,2:5,6-di-*O*-isopropylidene-3-*C*-(triphenylstannylmethyl)- α -D-allofuranose**

Lynne A. Burnett, Solange M. S. V. Doidge-Harrison, Simon J. Garden, R. Alan Howie, Oonah J. Taylor and James L. Wardell



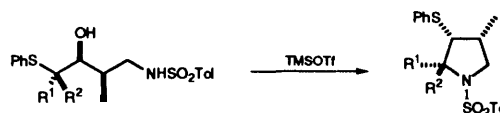
- 1629 **Naturally occurring linear fused thiazoline-thiazole containing metabolites: Total synthesis of (-)-didehydromirabazole A, a cytotoxic alkaloid from blue-green algae**

Gerald Pattenden and Stephen M. Thom



- 1637 **Synthesis of cyclic amines and allylic sulfides by phenylthio migration of β -hydroxy sulfides**

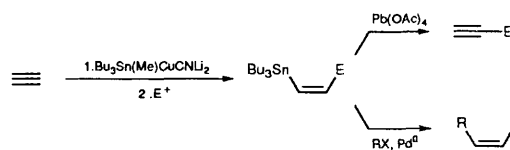
Iain Coldham and Stuart Warren



The toluenesulfonamido group efficiently captures an intramolecular episulfonium ion with complete stereochemical control to give excellent yields of cyclic and spirocyclic amines

- 1657 **Stannyl-cupration of acetylenes and the reaction of the intermediate cuprates with electrophiles as a synthesis of substituted vinylstannanes**

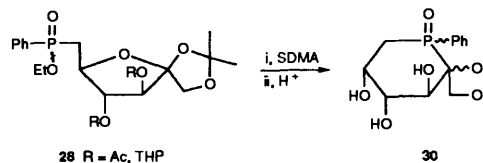
Asunción Barbero, Purificación Cuadrado, Ian Fleming, Ana M. González, Francisco J. Pulido and Rosa Rubio



The stannylcupration of acetylenes can be followed by reaction with several electrophiles to make a wide range of vinylstannanes, which can be oxidised to acetylenes and used in Stille reactions

- 1663 **Synthesis of 6-deoxy-6-phenylphosphonyl-D-fructopyranoses: the first phosphorus-in-the-ring analogues of a ketose**

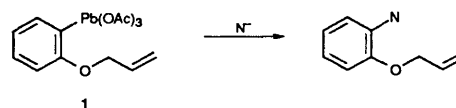
Tadashi Hanaya, Ryuji Okamoto, Yuriy V. Prikhod'ko, Margaret-Ann Armour, Alan M. Hogg and Hiroshi Yamamoto



The first phosphorus-in-the-ring analogue of a ketose 31 has been effectively prepared from D-fructose *via* the key intermediates 28

- 1673 **Mechanism of arylation of nucleophiles by aryllead triacetates. Part 1. Exclusion of a pathway involving aryl free radicals**

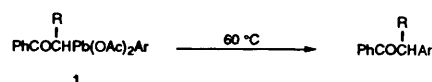
Jacqueline Morgan and John T. Pinhey



The reactions of substrate 1 with a variety of nucleophiles gave only products of direct displacement of triacetoxylead by the nucleophile, excluding the involvement of aryl free radicals

1677 Mechanism of arylation of nucleophiles by aryllead triacetates. Part 2. Support for a ligand coupling process and X-ray molecular structure of (*p*-methoxyphenyl)- α -methylphenacyllead(IV) diacetate

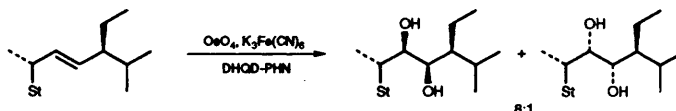
Jacqueline Morgan, Irmi Buys, Trevor W. Hambley and John T. Pinhey



Support for a ligand coupling process has been obtained from the mild pyrolysis of compounds of type 1

1683 Studies on steroidal plant-growth regulators. Part 29. Osmium tetroxide-catalysed asymmetric dihydroxylation of the (22*E*,24*R*)- and the (22*R*,24*S*)-24-alkyl steroidal unsaturated side chain

Liang-Fu Huang, Wei-Shan Zhou, Li-Qiang Sun and Xin-Fu Pan



Osmium tetroxide-catalysed asymmetric dihydroxylation of a (22*E*,24*S*)-24-ethyl substituted steroidal side chain gave an unexpected 8:1 ratio of (22*R*,23*R*)- and (22*S*,23*S*) isomers

1687 δ -Toxin and analogues as peptide models for protein ion channels

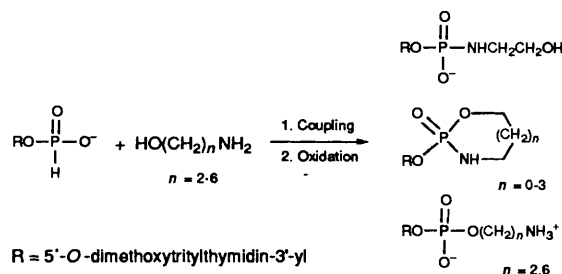
Christine M. Bladon, Peter Bladon and John A. Parkinson

	1	5	10	15	20	25																				
δ -toxin	M	A	Q	D	I	I	S	T	I	G	D	L	V	K	W	I	I	D	T	V	N	K	F	T	K	K
GM ⁶ , δ -toxin L	M	A	Q	D	I	I	S	E	I	G	D	L	V	K	W	I	I	D	T	V	N	K	F	T	K	K
GM ⁷ , δ -toxin	M	A	Q	D	I	I	E	T	I	G	D	L	V	K	W	I	I	D	T	V	N	K	F	T	K	K
Pro ¹⁴ , δ -toxin	M	A	Q	D	I	I	S	T	I	G	D	L	V	P	W	I	I	D	T	V	N	K	F	T	K	K
Des-Lys ¹⁴ , δ -toxin	M	A	Q	D	I	I	S	T	I	G	D	L	V	—	W	I	I	D	T	V	N	K	F	T	K	K
GM ⁶ , Pro ¹⁴ , δ -toxin	M	A	Q	D	I	I	S	E	I	G	D	L	V	P	W	I	I	D	T	V	N	K	F	T	K	K
GM ⁷ , des-Lys ¹⁴ , δ -toxin	M	A	Q	D	I	I	E	T	I	G	D	L	V	—	W	I	I	D	T	V	N	K	F	T	K	K

The above peptides have been synthesised by solid-phase methods and their structures examined by 1D- and 2D-NMR techniques

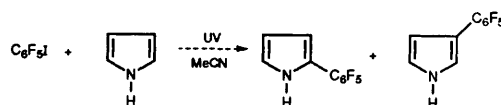
1699 Studies on reactions of nucleoside *H*-phosphonates with bifunctional reagents. Part 1. Reaction with amino alcohols

Adam Kraszewski, Michał Sobkowski and Jacek Stawiński



1705 Photoinduced electron transfer reactions of pentafluoriodobenzene with aromatic compounds

Qing-Yun Chen and Zhan-Ting Li



Upon UV irradiation, C₆F₅I reacts with anilines, pyrroles, indoles, imidazoles, aromatic ethers or phenols, giving the corresponding pentafluorophenylated compounds in good yields

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