

JOURNAL OF THE CHEMICAL SOCIETY

Perkin Transactions 1

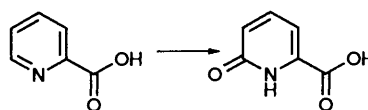
Organic and Bio-organic Chemistry

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Perkin Communications

- 1201 **Preparation of 6-oxo-1,6-dihydropyridine-2-carboxylic acid by microbial hydroxylation of pyridine-2-carboxylic acid**

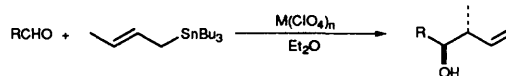
Andreas Kiener, Rainer Glöckler and Klaus Heinzmann



The bacterium *Alcaligenes faecalis* (DSM 6269) has been used for the regiospecific hydroxylation of pyridine-2-carboxylic acid to 6-oxo-1,6-dihydropyridine-2-carboxylic acid on a preparative scale

- 1203 **Do metal perchlorates act as a conventional Lewis acid in the allylstannation of aldehydes?**

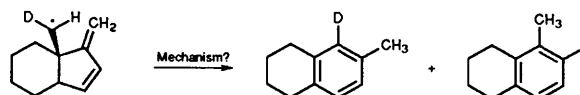
Yutaka Nishigaichi, Noriko Nakano and Akio Takuwa



Metal perchlorates (M = Li, Mg, Ca) in ether are found to promote the above reaction *via* a six-membered cyclic transition state, not acting as a conventional Lewis acid

- 1205 **Mechanistic pathways for radical ring expansion/aromatisation of steroid C/D models**

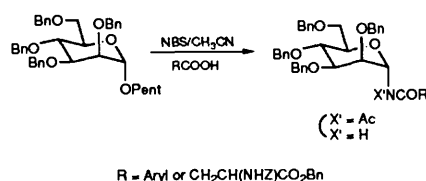
Stuart P. Green and Donald A. Whiting



Articles

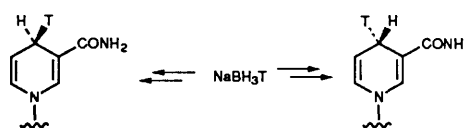
- 1207 **Pentenyl mannosides in the synthesis of *N*-acylmannopyranosyl amides: conformational analysis of intermediates**

C. Srinivas Rao, Andrew J. Ratcliffe and Bert Fraser-Reid



- 1213 **Preparation of [4*R*-³H]NADH, [4*R*-³H]-NADPH and the corresponding 4*S*-isomers all with substantial specific activities**

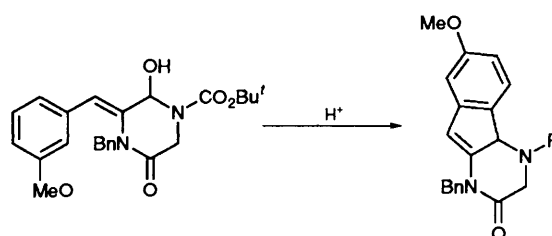
Koji Ichinose, Finian J. Leeper and Alan R. Battersby



A cheap and simple enzymic procedure is described for the preparation of both NADH and NADPH tritium-labelled at C-4 with either the *R* or the *S* configuration starting with sodium borotritiide

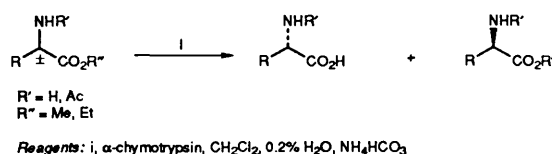
- 1217 **Alternative synthesis of 6-(3-methoxybenzyl)-pyrazin-2(1*H*)-one. Synthesis of indeno[1,2-*b*]-pyrazin-2-ones. Crystal structures of 5-acetoxy-1-benzyl-4-*tert*-butoxycarbonyl-6-(3-methoxybenzylidene)piperazin-2-one, 1-benzyl-4-*tert*-butoxycarbonyl-7-methoxy-1,3,4,4a-tetrahydroindeno[1,2-*b*]pyrazin-2-one and 1-benzyl-4-*tert*-butoxycarbonyl-7-methoxy-1,3,4,9-tetrahydroindeno[1,2-*b*]pyrazin-2-one**

David A. Peters, Roy L. Beddoes and John A. Joule



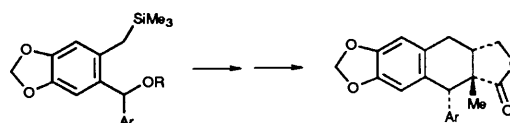
- 1225 **Selectivity and specificity in substrate binding to proteases: novel hydrolytic reactions catalysed by α -chymotrypsin suspended in organic solvents with low water content and mediated by ammonium hydrogen carbonate**

Jean-Marc Ricca and David H. G. Crout



- 1235 **A practical synthesis of the anti-tumour agent 2-methyl-4-deoxyisopicropodophyllotoxin and related podophyllin analogues**

Andrew R. Beard, Sarah J. Hazell, John Mann and Christopher Palmer



1239 **Synthesis, bioactivation and anti-HIV activity of the bis(4-acyloxybenzyl) and mono(4-acyloxybenzyl) esters of the 5'-monophosphate of AZT**

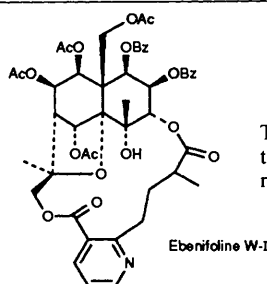
William Thomson, Dave Nicholls, William J. Irwin, Julian S. Al-Mushadani, Sally Freeman, Abraham Karpas, Juraj Petrik, Naheed Mahmood and Alan J. Hay



Designed to improve membrane penetration, the biolabile prodrugs, **5** and **7** give the 5'-monophosphate of AZT in the presence of porcine liver carboxyesterase

1247 **Isolation, structural elucidation and conformational analysis of sesquiterpene pyridine alkaloids from *Maytenus ebenifolia* Reiss. X-Ray molecular structure of ebenifoline W-I**

Hideji Itokawa, Osamu Shiota, Hiroshi Morita, Koichi Takeya and Yoichi Iitaka



The conformation of ebenifolines and the flexibility of their macrocyclic ring systems have been elucidated

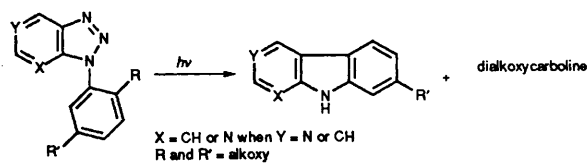
1255 **Chiral polyhydroxylated tetrahydrothiophene derivatives: novel synthesis and structural elucidation by X-ray crystallography, NMR spectroscopy and molecular mechanics calculations**

A. V. Rama Rao, K. Ashok Reddy, N. R. Srinivas, M. K. Gurjar, N. Padmaja, S. Ramakumar, M. A. Viswamitra, G. V. T. Swapna, B. Jagannadh and A. C. Kunwar

The syntheses and structures of novel polyhydroxylated tetrahydrothiophene derivatives obtained from Barton-McCombie reactions of 1,3,4,6-di-*O*-alkylidene-2,5-di-*S*-methylthiocarbonyl-D-mannitol derivatives are described

1261 **The elimination of an alkoxy group in the photo-Graebe-Ullmann conversion of 1-(2,5-dialkoxyphenyl)triazolopyridines into carbolines, and the preparation of α -, γ - and δ -carboline quinones**

Lina K. Mehta, John Parrick and Fereshteh Payne



Dialkoxy carbolines yield carboline quinones on oxidation with CAN

1269 **Synthesis of the oligosaccharide segment of a novel phenolic glycolipid antigen from *Mycobacterium haemophilum***

M. K. Gurjar and K. Revathi Reddy

The synthesis of the trisaccharide: 2,3-di-*O*-Me-L-Rhap-(α 1 \rightarrow 2)-3-*O*-Me-L-Rhap-(α 1 \rightarrow 4)-2,3-di-*O*-Me-L-Rhap-(α 1 \rightarrow) isolated from *Mycobacterium haemophilum* phenolic glycolipid is described

Corrigenda

- 1273 **New congeners of swinholides from the okinawan marine sponge *Theonella* sp.** Sachiko Tsukamoto, Masami Ishibashi, Takuma Sasaki and Jun'ichi Kobayashi
- 1273 **Phosphorus-based reagents in peptide synthesis: synthesis of methionine-enkephalin and the solution conformation of its *N*-diphenylphosphinyl derivative** D. David Smith, David Hopton, Kenneth G. Boyd, Robert L. Baxter and Robert Ramage
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NOTE: An asterisk in the heading of each paper indicates the author who is to receive any correspondence.

