JOURNAL OF THE CHEMICAL SOCIETY

Organic and Bio-organic Chemistry

TRANSACTIONS

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Perkin Communications

1073 Synthesis of novel organic nitrate esters: guanylate cyclase activation and tissue relaxation

> Kexin Yang, Jennifer D. Artz, Jodi Lock, Cristina Sanchez, Brian M. Bennett, Amy B. Fraser and Gregory R. J. Thatcher

Novel nitrate esters activate guanylate cyclase and relax aortic tissue

1077 The first synthesis of Diels–Alder adducts of [60] fullerene with sulfur containing heteroaromatic *o*-quinodimethanes

Ursula M. Fernández-Paniagua, Beatriz M. Illescas, Nazario Martín and Carlos Seoane

$$\underset{R'}{\overset{Br}{ \longrightarrow}} \underset{Br}{\overset{Br}{ \longrightarrow}} \left[\underset{R'}{\overset{R}{ \longrightarrow}} \right] \xrightarrow{\overset{C_{60}}{ \longrightarrow}} \left[\underset{S}{\overset{R}{ \longrightarrow}} \right]$$

Articles

1081 Palladium- and cobalt-mediated cyclisations of halo-polyenes: a comparative study

Amjad Ali, G. Bryon Gill, Gerald Pattenden, Graeme A. Roan and Toh-Seok Kam

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1095 Polyhalogenated heterocyclic compounds. Part 41. Cycloaddition reactions involving hexafluorobut-2-yne and 1,1,1,2,4,4,4-heptafluorobut-2-ene	$X \xrightarrow{O} Y \xrightarrow{F_3C} F \xrightarrow{300 \circ C} X \xrightarrow{O} Y$ $CF_3 F_3C CF_3$ $\sim 70\%$
Richard D. Chambers, Alex J. Roche and Michael H. Rock	
1101 The design, synthesis and biological evaluation of stable ozonides with antimalarial activity	O O O R
Luiz-Claudio de Almeida Barbosa, David Cutler, John Mann, M. James Crabbe, Geoffrey C. Kirby and David C. Warhurst	es Crabbe,
1107 Asymmetric induction α to nitrogen in pyrrolidines and piperidines <i>via</i> radical chemistry	$O = \begin{pmatrix} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$
Richard A. Ewin, Keith Jones and Christopher G. Newton	$n = 1.2$ $X = D$, allyl $R^* = \text{chiral auxiliary}$
1113 Stereoselective total synthesis of (—)- pumiliotoxin C by an aqueous intramolecular acylnitroso Diels-Alder approach	BnO BnO Me H
Masaichi Naruse, Sakae Aoyagi and Chihiro Kibayashi	H H (-)-Pumiliotoxin C
1125 Chiral synthesis of the necic acid components, crobarbatic acid and integerrinecic acid lactone	CI R^1 R^2 CO_2Me O CO_2H and O CO_2H
Toshio Honda, Fumihiro Ishikawa and Shin-ichi Yamane	R ¹ = Me, R ² = OTES R ¹ = OTES, R ² = Me
1101 C . I . 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1	— HOH ₂ C H

1131 Synthesis of (2S,4S)- and (2S,4R)-5,5'-dihydroxy[5,5-2H₂]leucine by two independent routes

(B) $HO_{CO_2R^2}$ HOH_2C H HO^2H_2C H_2N CO_2H

Xavier Durand, Piétrick Hudhomme, Jeffrey A. Khan and Douglas W. Young

The routes (A) and (B) above have been used to prepare (2S,4S)-and (2S,4R)-5,5'-dihydroxy[5,5- 2 H $_2$]leucine respectively

1141	Conformational study of the higher [n.n] paracyclophanes: evaluation as potential hosts for molecular halogens and benzenes

Mark Mascal, Jean-Luc Kerdelhué, Andrei S. Batsanov and Michael J. Begley

Higher [n.n] paracyclophanes have been synthesized and their conformational behaviour and potential to act as π -base hosts analysed

1153 Stereochemistry of the enzymic lactonisation of cis,cis-muconic and 3-methyl-cis,cis-muconic acid

Beining Chen, Gordon W. Kirby, Ghanakota V. Rao and Ronald B. Cain

HO₂C R ii HO₂C D
$$\stackrel{\text{HO}_2}{\text{D}}$$
 $\stackrel{\text{HO}_2}{\text{D}}$ $\stackrel{\text{HO}_2$

1157 Reactions of diphenylketene and methylphenylketene with some *cis*-cyclohexa-3,5-diene-1,2-diol derivatives

Stanley M. Roberts, Peter W. Sutton and Lorraine Wright

$$\begin{array}{c}
R^{1} \\
Ph \\
Ph \\
R^{2}
\end{array}$$

$$= 0$$

$$R^{1} = Me, H, halogen, R^{2} = Ph, Me$$

1167 Zinc(II)-catalysed transformation of epoxides to aziridines

Dorte Kühnau, Ib Thomsen and Karl Anker Jørgensen

$$R \xrightarrow{O} R'N = PR''_3$$

$$Zn(II)$$

$$R$$

1171 Diastereoselectivity in the $S_{\rm E}2''$ reaction of chiral pentadienylsilanes: a test for the relative importance of steric and electronic effects

Ian Fleming, Graeme R. Jones, Nicholas D. Kindon, Yannick Landais, Colin P. Leslie, Ian T. Morgan, Stefan Peukert and Achintya K. Sarkar

Chiral penta-2Z,4E-dienylsilanes react with electrophiles in an S_E2^n reaction stereospecifically anti, sometimes, but not always, to a high degree, largely, it appears, because of a steric effect

1197 Stereocontrol of stereogenic centres para on a benzene ring using the $S_E 2''$ reaction of a pentadienylsilane

Ian Fleming and Colin P. Leslie

9 11a The stereocentres 1 and 6, arranged para on the benzene ring in the diol 11a can be set up with a fair degree of stereocontrol using an $S_E2^{\prime\prime}$ reaction of the racemic (Z,E)-pentadienylsilane 9

1205	The 4-azidobenzyloxycarbonyl function; application as a novel protecting group and potential prodrug modification for amines	RNH ₂ $ \begin{array}{c} N_3 \\ O \\ O \\ NO_2 \end{array} $ $ \begin{array}{c} N_3 \\ NO_2 \end{array} $ $ \begin{array}{c} N_3 \\ O \\ NHR \end{array} $ $ \begin{array}{c} R = H \text{ or alkyl} \end{array} $
	Roger J. Griffin, Elaine Evers, Richard Davison, Ashleigh E. Gibson, Deborah Layton and William J. Irwin	DTT, NE ₁₃ , MeOH
1213	Synthesis of inverto-yuehchukene and its 10-(indol-3'-yl) isomer. X-Ray structure of (4aRS,10aRS)-1,1,3-trimethyl-1,2,4a,5,10,10a-hexahydroindene[1,2-b]indol-10-one	BS H H H
	Kin-Fai Cheng and Man-Ki Cheung	8 14 4
1219	Identification of coupling conditions proceeding with low C-terminal epimerization during the assembly of fully protected backbonesubstituted peptide segments	Prot Fmoc-Segment.2-OH Prot AcHmb H.Segment.1-Resin DIC/HOBUCH2Cl2 AcHmb Hmb
	Martin Quibell, Leonard C. Packman and Tony Johnson	<3% epimerization 2 equiv./6 h/>95 % reaction
1227	Solid-phase assembly of backbone amide- protected peptide segments: an efficient and reliable strategy for the synthesis of small proteins	Preparation of HIV-1 _{Bru} tat [1–72, Cys(Acm) ^{22,25,27,30,31,34,37}] overall yield, 38.4%
	Martin Quibell, Leonard C. Packman and Tony Johnson	
1235	A new convergent method for porphyrin synthesis based on a '3 + 1' condensation	NH + HN i, DDQ N N N N
	Arezki Boudif and Michel Momenteau	CO ₂ H
1243	Synthesis and stereostructure-activity relationship of a synthetic pyrethroid, 2-chloro-1-methyl-3-phenylcyclopropylmethyl 3-phenoxybenzyl ether	Ph 3 1 Me O Ph Of 8 stereoisomers, only 1R,2S,3S-isomer was active.
	Yoshinori Nishii, Ken-ichi Wakimura, Toru Tsuchiya, Shogo Nakamura and Yoo Tanabe	1R,2S,3S

Reaction of metallo-2-nitro-5,10,15,20-tetraphenylporphyrins with oxyanions. Temperature-dependent competition between nucleophilic addition and single-electron transfer processes

Maxwell J. Crossley and Lionel G. King

A rationale of the mechanism is presented and conditions for interconversion of products have been established

1261 Novel indole-ring formation by thermolysis of 2-(N-acylamino)benzylphosphonium salts. **Effective synthesis of 2-trifluoromethylindoles**

Kazuyuki Miyashita, Katsunori Kondoh, Katsutoshi Tsuchiya, Hideto Miyabe and Takeshi Imanishi

1269 Synthesis of 15,15-dialkylestradiols

James R. Bull and Michiel C. Loedolff

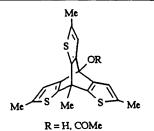
1277 Syntheses and chemical and physical properties of thiophenetriptycenes

Akihiko Ishii, Kiyoto Maeda, Maki Kodachi, Noriko Aoyagi, Keiko Kato, Teruo Maruta,

Masamatsu Hoshino and Juzo Nakayama

R = H, SO_2Me , $COCH_3$, Me

R' = Me, Et



1287 An approach to modified heterocyclic analogues of huperzine A and isohuperzine A. Synthesis of the pyrimidone and pyrazole analogues, and their anticholinesterase activity

Alan P. Kozikowski, Giuseppe Campiani, Vito Nacci, Alessandro Sega, Ashima Saxena and Bhupendra P. Doctor

1299 Self-addition products from the alkylation of amino acid-derived oxazolidinones: X-ray molecular structures of (2R,4S,1'S)-3-benzoyl-4-[benzoylamino(phenyl)methyl]-4-benzyl-2-phenyl-1,3-oxazolidin-5-one, (2R,4S,1'S)- and (2R,4S,1'R)-3-benzoyl-4-[benzoylamino-(phenyl)methyl]-4-isopropyl-2-phenyl-1,3-oxazolidin-5-one

Andrew D. Abell, Jane M. Taylor and Mark D. Oldham

1305 Synthesis of chiral bicyclo[2.2.2]oct-5-en-2-ones *via* an intramolecular alkylation reaction

Adusumilli Srikrishna, G. Veera Raghava Sharma, Savariappan Danieldoss and Parthasarathy Hemamalini

Corrigenda

- 1313 Cerium(IV) ammonium nitrate mediated addition of dimethyl malonate to styrene: a remarkable reaction Vijay Nair and Jessy Mathew
- 1313 Methyl 3-(triphenylphosphoranylideneamino)pyrazine-2-carboxylate: synthesis, crystal structure and use in pteridine-4-(3H)-ones synthesis Tomohiro Okawa, Shoji Eguchi and Akikazu Kakehi

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John F Arnett, Associate Editor, Recombinant BioCatalysis, Inc Elmwood Court 2, 512 Elmwood Ave, Sharon Hill, PA 19079-1005 USA Tel. 1-610-237-7515 Fax. 1-610-237-7565 Richard Pariza, Associate Editor C&P Associates 43323 Oakcrest Lane, North Zion, IL 60099-9413 USA Tel./Fax. 1-708-872-6925