

JOURNAL OF THE CHEMICAL SOCIETY

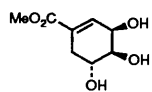
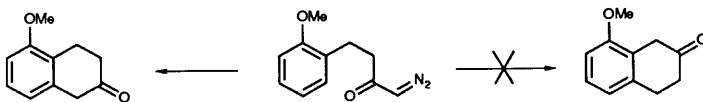
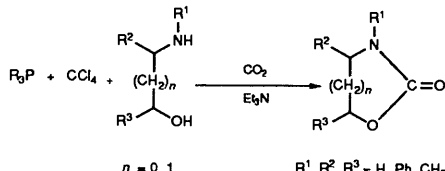
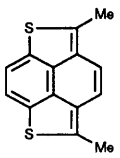
Perkin Transactions 1

Organic and Bio-organic Chemistry

CONTENTS

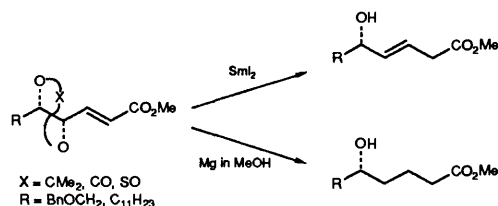
- vii Instructions for authors (1993)
 xxv Refereeing procedure and policy

Perkin Communications

<p>1 Synthesis of (+)- and (-)-methyl shikimate from benzene</p> <p>Carl R. Johnson, Joseph P. Adams and Mark A. Collins</p>	 <p>(-)-Methyl shikimate</p> <p>The title transformations were achieved utilizing microbial oxidation, enzymatic asymmetrization, enone α-iodinations and Pd⁰-catalysed couplings</p>
<p>3 A reinvestigation of the intramolecular Buchner reaction of 1-diazo-4-phenylbutan-2-ones leading to 2-tetralones</p> <p>Alex A. Cordi, Jean-Michel Lacoste and Philippe Hennig</p>	 <p>Rhodium acetate catalysed decomposition of 1-diazo-4-(2-methoxyphenyl)butan-2-one lead, after rearrangement under acidic conditions, to the 5-methoxy-2-tetralone and not the 8-methoxy-2-tetralone as reported</p>
<p>5 Formation of cyclic urethanes from amino alcohols and carbon dioxide using phosphorus(III) reagents and halogenoalkanes</p> <p>Yasuhiko Kubota, Masato Kodaka, Takenori Tomohiro and Hiroaki (Yohmei) Okuno</p>	 <p>$n = 0, 1$ $R^1, R^2, R^3 = H, Ph, CH_2Ph$</p> <p>Cyclic urethanes are obtained in good yields from amino alcohols and carbon dioxide using phosphorus(III) reagents [Ph_3P, $(PhO)_3P$, etc.] and halogenoalkanes (CCl_4 and CCl_3CCl_3)</p>
<p>7 Synthesis and properties of 2,5-dimethylnaphtho[1,8-bc:4,5-b'c']dithiophene as a new electron donor</p> <p>Alec Moradpour</p>	 <p>A new versatile synthesis of the title compound is reported</p>

- 9 **Reductive elimination of acetonides, cyclic carbonates, or cyclic sulfites of γ,δ -dihydroxy (*E*)- α,β -unsaturated esters: an efficient route to δ -hydroxy (*E*)- β,γ -unsaturated esters and δ -hydroxy esters**

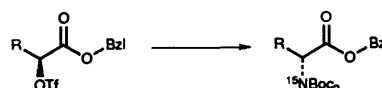
Suk-Ku Kang, Sung-Gyu Kim, Dong-Chul Park, Jang-Sup Lee, Weon-Jong Yoo and Chwang Siek Pak



Articles

- 11 **Synthesis of ¹⁵N-labelled chiral Boc-amino acids from triflates: enantiomers of leucine and phenylalanine**

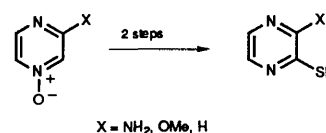
Fredrik Degerbeck, Bengt Fransson, Leif Grehn and Ulf Ragnarsson



Hydroxy acids from amino acids, reacted as triflates with Li ¹⁵NBoc₂, giving rise to the title compounds of opposite configuration

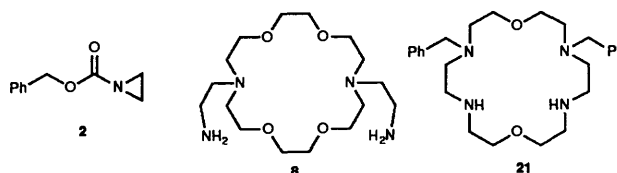
- 15 **Studies on pyrazines. Part 25. Lewis acid-promoted deoxidative thiation of pyrazine *N*-oxides: new protocol for the synthesis of 3-substituted pyrazinethiols**

Nobuhiro Sato, Kazunori Kawahara and Noritsugu Morii



- 21 ***N*-Benzyloxycarbonylaziridine in the syntheses of 2-aminoethyl armed lariats and selectively *N*-protected polyazacrown ethers**

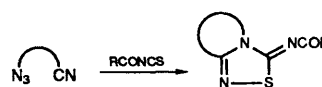
Mladen Žinić, Sulejman Alihodžić and Vinko Škarić



It is demonstrated that *N*-benzyloxycarbonylaziridine **2** is a very useful building block for syntheses of *N*-2-aminoethyl armed lariats and selectively *N*-protected polyazacrowns, including **8** and **21**, respectively

- 27 **Synthesis of fused dihydro-1,2,4-thiadiazol-imines from cyano-substituted azides and acyl isothiocyanates**

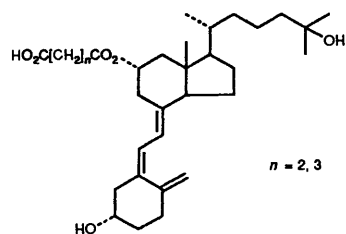
Gerrit L'abbé, Ingrid Sannen and Wim Dehaen



Organic azides bearing a nitrile function at the γ - or δ -position, react with acyl isothiocyanates to give fused 1,2,4-thiadiazolimines

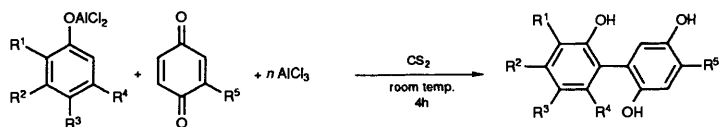
- 31 **Syntheses of novel 25-hydroxyvitamin D₃ haptens having chemical bridges at the C-11 α position**

Norihiro Kobayashi, Akihiko Hisada and Kazutake Shimada



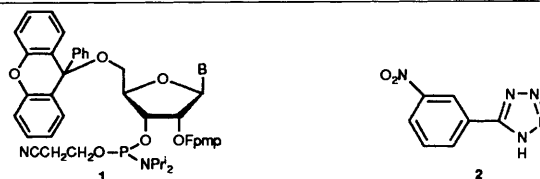
- 39 **Reinvestigation of the Pummerer arylation of quinones: a selective approach to 2,2',5'-trihydroxybiaryls**

Giovanni Sartori, Raimondo Maggi, Franca Bigi, Attilio Arienti and Giuseppe Casnati



- 43 **Use of the 1-(2-fluorophenyl)-4-methoxy-piperidin-4-yl (Fmp) protecting group in the solid-phase synthesis of oligo- and poly-ribonucleotides**

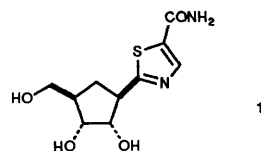
M. Vaman Rao, Colin B. Reese, Volker Schehlmann and Pak Sang Yu



Automated solid-phase synthesis of the 3'-terminal heptatriacontamer (37-mer) sequence of unmodified yeast tRNA^{A1a} has been effected from appropriate monomers **1**, activated by 5-(3-nitrophenyl)-1*H*-tetrazole **2**

- 57 **C-Nucleosides. Part 2. Preparation of 2-[(1*R*,2*S*,3*R*,4*R*)-2,3-dihydroxy-4-(hydroxymethyl)cyclopentyl]thiazole-4-carboxamide ('carbocyclic' tiazofurin) and its antipode**

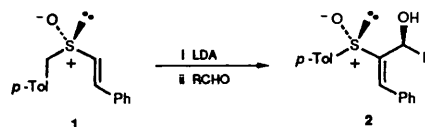
Allan P. Dishington, David C. Humber and Richard J. Stoodley



Carbatiiazofurin **1** and its antipode have been prepared for the first time

- 67 **Stereoselective reactions of lithio-vinylsulfoxides with aldehydes**

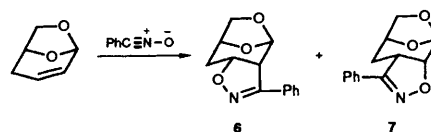
John Fawcett, Stuart House, Paul R. Jenkins, Nicholas J. Lawrence and David R. Russell



Homochiral vinylsulfoxide **1** was lithiated and treated with aldehydes to give **2** in up to 85:15 selectivity

- 75 **Regio- and face-selective cycloaddition of benzonitrile oxide and C,N-diphenylnitrone to 6,8-dioxabicyclo[3.2.1]oct-3-ene**

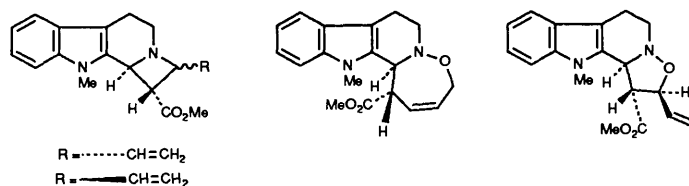
Alexander J. Blake, Ian M. Dawson, Angus C. Forsyth, Robert O. Gould, R. Michael Paton and Desmond Taylor



Cycloaddition of benzonitrile oxide to the title alkene affords a 4:1 regioisomeric mixture of *exo*-adducts **6** and **7**

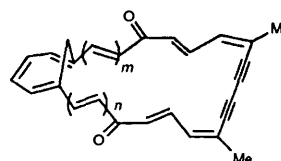
- 81 **Meisenheimer rearrangement of azeto-pyridoindoles. Part 4. Ring expansion of 2-vinyl-1,2,4,5,10,10b-hexahydroazeto-[1',2':1,2]pyrido[3,4-*b*]indole *N*-oxides**

Takushi Kurihara, Yasuhiko Sakamoto, Kiyoko Tsukamoto, Hirofumi Ohishi, Shinya Harusawa and Ryuji Yoneda



- 89 **Synthesis and properties of methano-bridged tetradehydro-[20]-, -[24]-, -[26]-, -[28]-, -[30]- and -[32]-annulenediones**

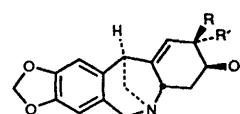
Hiroyuki Higuchi, Kaori Asano, Kaori Nakafuku, Yoshie Takai, Jūro Ojima and Gaku Yamamoto



Synthesis of annulenediones

- 101 **Radical-mediated synthesis of the 5,11-methanomorphanthridine ring system: formal total synthesis of montanine-type *Amaryllidaceae* alkaloids, (±)-montanine, (±)-coccinine and (±)-pancracine**

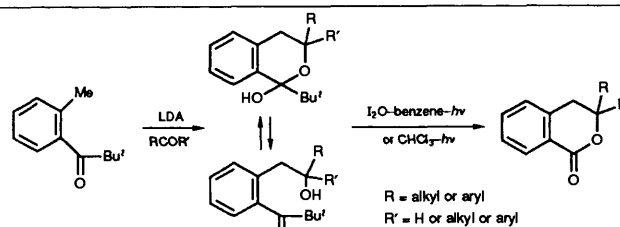
Miyuki Ishizaki, Ken-ichi Kurihara, Eiko Tanazawa and Osamu Hoshino



Montanine 1 R = H, R' = OMe
Coccinine 2 R = OMe, R' = H
Pancracine 3 R = H, R' = OH

- 111 **Photoinduced molecular transformations. Part 137. New general synthesis of 3-substituted 3,4-dihydro-1*H*-benzo[2]pyran-1-ones (3,4-dihydroisocoumarins) via radical and photochemical fragmentations as the key step**

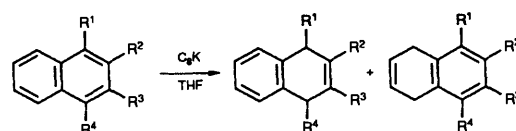
Kazuhiro Kobayashi, Atsushi Konishi, Yoshikazu Kanno and Hiroshi Sugimoto



A new general synthesis of 3,4-dihydroisocoumarins is described

- 117 **The application of C₈K for organic synthesis: reduction of substituted naphthalenes**

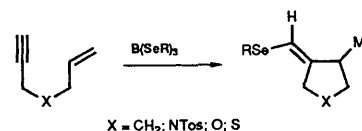
Iris S. Weitz and Mordecai Rabinovitz



Selective reductions of naphthalene derivatives using C₈K-ether offers an alternative route to the Birch reduction

- 121 **Versatile cyclisation reactions using selenoboranes**

Tadashi Kataoka, Mitsuhiro Yoshimatsu, Yoshinori Noda, Takashi Sato, Hiroshi Shimizu and Mikio Hori



131 **Unprecedented influence of azides and the effect of bulky groups on zinc-induced reductions of deoxy halogeno sugars**

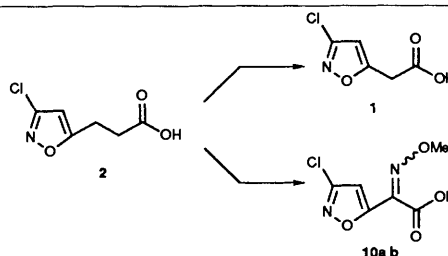
Alois Fürstner, Judith Baumgartner and Denis N. Jumbam



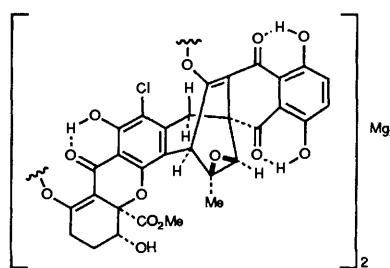
The factors determining the path of Zn/Ag-graphite induced reductions have been studied

139 **Synthesis of some new isoxazolylacetic acid derivatives**

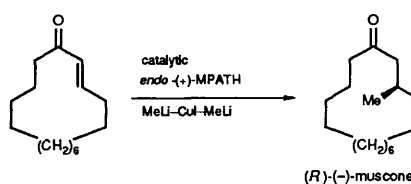
Zsuzsanna Gombos, József Nyitrai, Gábor Doleschall, Pál Kolonits, László Párkányi and Alajos Kálmán

Potential acylating agents for β -lactams are described145 **Secondary mould metabolites. Part 41. Structure and biosynthesis of *Cercospora beticola* toxin (CBT)**

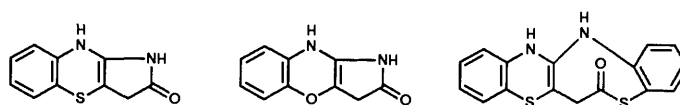
Alberto Arnone, Gianluca Nasini, Lucio Merlini, Enzo Ragg and Gemma Assante

153 **Chiral amplification and the catalytic process in the enantioselective conjugate addition of chiral alkoxydimethylcuprate to (*E*)-cyclopentadec-2-en-1-one**

Kazuhiko Tanaka, Junichi Matsui and Hitomi Suzuki

159 **New synthesis of pyrrolobenzothiazine and pyrrolobenzoxazine ring systems**

Charles O. Okafor and Mabel U. Akpuaka



Corrigendum

163 **Synthesis of 1,2-dihydroisoquinoline-3-carbaldehydes** Gyula Simigxxix **Conference Diary**

AUTHOR INDEX

- Adams Joseph P., 1
Alihodžić, Sulejman, 21
Akpuaka, Mabel U., 159
Arienti, Attilio, 39
Arnone, Alberto, 145
Asano, Kaori, 89
Assante, Gemma, 145
Baumgartner, Judith, 131
Bigi, Franca, 39
Blake, Alexander J., 75
Casnati, Giuseppe, 39
Collins, Mark A., 1
Cordí, Alex A., 3
Dawson, Ian M., 75
Degerbeck, Fredrik, 11
Dehaen, Wim, 27
Dishington, Allan P., 57
Doleschall, Gábor, 139
Fawcett, John, 67
Forsyth, Angus C., 75
Fransson, Bengt, 11
Fürstner, Alois, 131
Gombos, Zsuzsanna, 139
Gould, Robert O., 75
Grehn, Leif, 11
Harusawa, Shinya, 81
Hennig Philippe, 3
Higuchi, Hiroyuki, 89
Hisada, Akihiko, 31
Hori, Mikio, 121
Hoshino, Osamu, 101
House, Stuart, 67
Humber, David C., 57
Ishizaki, Miyuki, 101
Jenkins, Paul R., 67
Johnson Carl R., 1
Jumbam, Denis N., 131
Kálmán, Alajos, 139
Kang, Suk-Ku, 9
Kanno, Yoshikazu, 111
Kataoka, Tadashi, 121
Kawahara, Kazuñori, 15
Kim, Sung-Gyu, 9
Kobayashi, Kazuhiro, 111
Kobayashi, Norihiro, 31
Kodaka, Masato, 5
Kolonits, Pál, 139
Konishi, Atsushi, 111
Kubota, Yasuhiko, 5
Kurihara, Ken-ichi, 101
Kurihara, Takushi, 81
L'abbé, Gerrit, 27
Lacoste, Jean-Michel, 3
Lawrence, Nicholas J., 67
Lee, Jang-Sup, 9
Maggi, Raimondo, 39
Matsui, Junichi, 153
Merlini, Lucio, 145
Moradpour, Alec, 7
Morii, Noritsugu, 15
Nakafuku, Kaori, 89
Nasini, Gianluca, 145
Noda, Yoshinori, 121
Nyitrai, József, 139
Ohishi, Hirofumi, 81
Okafor, Charles O., 159
Okuno, Hiroaki (Yohmei), 5
Ojima, Jūro, 89
Pak, Chwang Siek, 9
Park, Dong-Chul, 9
Párkányi, László, 139
Paton, Michael R., 75
Rabinovitz, Mordecai, 117
Ragg, Enzo, 145
Ragnarsson, Ulf, 11
Rao, Vaman M., 43
Reese, Colin B., 43
Russell, David R., 67
Sakamoto, Yasuhiko, 81
Sannen, Ingrid, 27
Sartori, Giovanni, 39
Sato, Nobuhiro, 15
Sato, Takashi, 121
Schehlmann, Volker, 43
Shimada, Kazutake, 31
Shimizu, Hiroshi, 121
Simig, Gyula, 163
Škarić, Vinko, 21
Stoodley, Richard J., 57
Suginome, Hiroshi, 111
Suzuki, Hitomi, 153
Takai, Yoshie, 89
Tanaka, Kazuhiko, 153
Tanazawa, Eiko, 101
Taylor, Desmond, 75
Tomohiro Takenori, 5
Tsukamoto, Kiyoko, 81
Weitz, Iris S., 117
Yamamoto, Gaku, 89
Yoneda, Ryuji, 81
Yoo, Weon-Jong, 9
Yoshimatsu, Mitsuhiro, 121
Yu, Pak Sang, 43
Žinić, Mladen, 21

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