Christine Mouriès, Brigitte Deguin, Foudil Lamari, Marie-José Foglietti, François Tillequin* and Michel Koch

H₂N H COOH
H O-
$$\beta$$
-D-Glc
C₁₆H₂₃O₁₀N
(6*R*)-Aminogeniposidic acid

Tetrahedron: Asymmetry 14 (2003) 1083

Ee = 100% $[\alpha]_{D}^{20} = -15 \ (c \ 0.9, \ H_2O)$ Source of chirality: chiral pool from aucubin Absolute configuration: (1S, 5S, 6R, 9S)





Marcello Tiecco, * Lorenzo Testaferri, Francesca Marini, Silvia Sternativo, Claudio Santi, Luana Bagnoli and Andrea Temperini $\begin{bmatrix} \alpha \end{bmatrix}_{D}^{24} = -45.3 \ (c \ 1.68, \ CHCl_3) \\ Source \ of \ chirality: \ (1R,2R)-1,2-diphenyl-1,2-ethanediol \\ Absolute \ configuration: \ 3R,4S,1R,2R \end{bmatrix}$



 $[\alpha]_D^{25} = +46.3$ (*c* 2.07, CHCl₃) Source of chirality: (1*R*,2*R*)-1,2-diphenyl-1,2ethanediol Absolute configuration: 3*S*,4*R*,1*R*,2*R*

 CH_2CN $C_{25}H_{25}NO_2Se$ $(3S,4R)-4-{[(1R,2R)-2-Hydroxy-1,2-diphenylethyl]oxy}-3-(phenylseleno)pentanenitrile$

_,Ph

PhSe⁻

HO



HO Ph CN $C_{19}H_{19}NO_2$

Me

 $[\alpha]_{D}^{23} = -101.6$ (*c* 1.95, CHCl₃) Source of chirality: (1*R*,2*R*)-1,2-diphenyl-1,2ethanediol Absolute configuration: 4*S*,1*R*,2*R*

Marcello Tiecco,* Lorenzo Testaferri, Francesca Marini,
 Tetrahedron: Asymmetry 14 (2003) 1095

 Silvia Sternativo, Claudio Santi, Luana Bagnoli and Andrea Temperini

$$[x]_{10}^{10} = -27.0 (c 1.95, CHCl_3)$$

 Source of chirality: $(1R,2R)-1,2$ -diphenyl-1,2-
ethanediol
 Source of chirality: $(1R,2R)-1,2$ -diphenyl-1,2-
ethanediol

 Methyl (2E,4R)-4: {{(1R,2R)-2-hydroxy-1,2-diphenylethyl]oxy}-4-phenylbut-2-enoate
 Absolute configuration: $4R,1R,2R$

 Marcello Tiecco,* Lorenzo Testaferri, Francesca Marini,
Silvia Sternativo, Claudio Santi, Luana Bagnoli and Andrea Temperini
 Tetrahedron: Asymmetry 14 (2003) 1095

 Source of chirality: $(1R,2R)-2$ -hydroxy-1,2-diphenylethyl]oxy}-4-phenylbut-2-enoate
 [x]_{10}^{10} = +7.3 (c 2.13, CHCl_3)
Source of chirality: $(1R,2R)-1,2$ -cyclohexanediol
Absolute configuration: $4R,1R,2R$

 Phu, $- 0$,

Source of chirality: (2R,3R)-2,3-butanediol Ме Absolute configuration: 4R,1R,2R HC Me ĊO₂Me $C_{15}H_{20}O_4$

 $Methyl~(2E, 4R)-4-\{[(1R, 2R)-2-hydroxy-1-methylpropyl]oxy\}-4-phenylbut-2-enoate$

Ph

Tetrahedron: Asymmetry 14 (2003) 1095 Marcello Tiecco,* Lorenzo Testaferri, Francesca Marini, Silvia Sternativo, Claudio Santi, Luana Bagnoli and Andrea Temperini $[\alpha]_D^{22} = +69.5 \ (c \ 1.06, \ \text{CHCl}_3)$ Source of chirality: (1R,2R)-1,2-diphenyl-1,2ethanediol Ph Me 0 Absolute configuration: 4R,1R,2R HO ĊN $\mathrm{C}_{19}\mathrm{H}_{19}\mathrm{NO}_{2}$ (2E,4R)-4-{[(1R,2R)-2-Hydroxy-1,2-diphenylethyl]oxy}pent-2-enenitrile

 $\dot{CO_2Me}$ $C_{15}H_{20}O_4$ Methyl (2*E*,4*S*)-4-{[(1*R*,2*R*)-2-hydroxy-1-methylpropyl]oxy}-4-phenylbut-2-enoate

Marcello Tiecco,* Lorenzo Testaferri, Francesca Marini, Silvia Sternativo, Claudio Santi, Luana Bagnoli and Andrea Temperini $\begin{bmatrix} \alpha \end{bmatrix}_{D}^{23} = +92.3 \ (c \ 0.51, CHCl_3) \\ Source of chirality: (1R,2R)-1,2-diphenyl-1,2-ethanediol \\ Absolute configuration: 2R,3S,5R,6R \\ \end{bmatrix}$



Marcello Tiecco,* Lorenzo Testaferri, Francesca Marini, Silvia Sternativa, Claudia Santi, Luana Bagnali and Andrea Temperini	Tetrahedron: Asymmetry 14 (2003) 1095	
Silvia Sternativo, Claudio Salti, Luana Bagnon and Andrea Temperini		
$\left[\alpha\right]_{\mathrm{D}}^{27}$	=+25.3 (<i>c</i> 0.26, CHCl ₃)	
Sour	ce of chirality: $(2R,3R)$ -2,3-butanediol	
Ph ₁ , O, Me Abso	lute configuration: 2 <i>R</i> ,3 <i>S</i> ,5 <i>R</i> ,6 <i>R</i>	
ĊO₂Me		
$C_{15}H_{20}O_4$		
Methyl [(2R,3S,5R,6R)-5,6-dimethyl-3-phenyl-1,4-dioxan-2-yl]acetate		

Marcello Tiecco,* Lorenzo Testaferri, Francesca Marini, Silvia Sternativo, Claudio Santi, Luana Bagnoli and Andrea Temperini $\begin{bmatrix} \alpha \end{bmatrix}_{D}^{21} = +96.0 \ (c \ 1.67, CHCl_3) \\ Source \ of \ chirality: \ (1R,2R)-1,2-diphenyl-1,2-ethanediol \\ Absolute \ configuration: \ 2S,3S,5R,6R \\ \end{bmatrix}$



Me CO₂Me C15H20O4 Methyl [(2S,3S,5R,6R)-5,6-dimethyl-3-phenyl-1,4-dioxan-2-yl]acetate

Tetrahedron: Asymmetry 14 (2003) 1095 Marcello Tiecco,* Lorenzo Testaferri, Francesca Marini, Silvia Sternativo, Claudio Santi, Luana Bagnoli and Andrea Temperini $[\alpha]_{D}^{27} = +18.4 \ (c \ 0.95, \ \text{CHCl}_{3})$ Source of chirality: (2R,3R)-2,3-butanediol Me Absolute configuration: 2R,3R,5R,6R CO₂Me $C_{15}H_{20}O_4$ Methyl [(2R,3R,5R,6R)-5,6-dimethyl-3-phenyl-1,4-dioxan-2-yl]acetate











hept-1-ylmethanesulfonamide

Miguel Yus,* Diego J. Ramón and Oscar PrietoTetrahedron: Asymmetry 14 (2003) 1103Miguel Yus,* Diego J. Ramón and Oscar Prieto $[\alpha]_D^{25} = -46.2 (c \ 1.8, EtOH)$
Source of chirality: D-(+)-10-camphorsulfonyl chloride
Absolute configuration: 1S, 2R, 4S, 1'S, 2'R, 4'S $\mathcal{L}_{28}H_{44}N_2O_6S_2$ $N-\{3-(2'-Hydroxy-7', 7'-dimethylbicyclo[2.2.1]hept-1'-ylmethylsulfonamidomethyl)benzyl}-2-hydroxy-7,7-dimethylbicyclo[2.2.1]-
hept-1-ylmethanesulfonamide$













 $N-\{1-[2-(2'-Hydroxy-7',7'-dimethylbicyclo[2.2.1]hept-1'-ylmethylsulfonamido)-1-naphthyl]-2-naphthyl]-2-hydroxy-7,7-dimethylbicyclo[2.2.1]hept-1-ylmethanesulfonamide$

Henri Brunner,* Maximilian Schönherr and Manfred Zabel

Tetrahedron: Asymmetry 14 (2003) 1115

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[\alpha]_{D}^{25} = +68.0 \ (c \ 3, \ H_2O)
Source of chirality: galactose (chiral pool)
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 $O-\beta$ -D-Galactopyranosylhydroxylamine







Henri Brunner,* Maximilian Schönherr and Manfred Zabel

Tetrahedron: Asymmetry 14 (2003) 1115

 $[\alpha]_{D}^{25} = +9.6$ (c 2, CH₂Cl₂) Source of chirality: galactose (chiral pool)



 $C_{20}H_{24}N_2O_{10}$ $O\mbox{-}(2,3,4,6\mbox{-Tetra-}O\mbox{-}acetyl\mbox{-}\beta\mbox{-}D\mbox{-}galactopyranosyl)pyridine-2\mbox{-}carbaldoxime$



















J. Wehbe, V. Rolland,* M. L. Roumestant and J. Martinez		Tetrahedron: Asymmetry 14 (2003) 1123
$H_{3}C CO_{2}H$ $H_{2}N = CO_{2}H$ $H CO_{2}H$	E.e. 4b: Sour Abs	=99.0%±1 (2S,3S): $[\alpha]_{D}^{20}$ =+36.3 (c 1, 6N HCl) rce of chirality: (1R,2R,5R)-2-hydroxypinan-3-one olute configuration: 2S,3S
C ₆ H ₁₃ NO ₄ (2 <i>S</i> ,3 <i>S</i>)-3-Methyl glutamic acid		





Jordi Ortiz, Xavier Ariza* and Jordi Garcia* OCH_2Ph \downarrow $\ddot{O}H$ $C_{15}H_{20}O_2$ (3*R*,6*R*)-6-Benzyloxy-2-methylhept-4-yn-3-ol

(4R,5Z,7R)-7-Benzyloxy-2-methyloct-5-en-4-ol

Tetrahedron: Asymmetry 14 (2003) 1127

97:3 Mixture of 3R,6R and 3S,6R isomers $[\alpha]_D = +94.2$ (*c* 1.60, CHCl₃) Source of chirality: asymmetric synthesis Absolute configuration: 3R,6R

Jordi Ortiz, Xavier Ariza* and Jordi Garcia* $\begin{array}{c} \text{OCH}_2\text{Ph} \\ \overbrace{OH}\\ C_{15}\text{H}_{20}\text{O}_2 \\ (3S,6R)-6-\text{Benzyloxy-2-methylhept-4-yn-3-ol} \end{array}$ $\begin{array}{c} \text{Tetrahedron: Asymmetry 14 (2003) 1127} \\ \hline \\ \text{Source of 3S,6R and 3R,6R isomers} \\ [\alpha]_D = +118.5 \ (c \ 1.32, \ \text{CHCl}_3) \\ \text{Source of chirality: asymmetric synthesis} \\ \text{Absolute configuration: } 3S,6R \end{array}$

Jordi Ortiz, Xavier Ariza* and Jordi Garcia* $\begin{bmatrix} \alpha \end{bmatrix}_D = +6.2 \ (c \ 0.40, \ CHCl_3) \\ Source \ of \ chirality: \ asymmetric \ synthesis \\ Absolute \ configuration: \ 4R,5Z,7R \end{bmatrix}$ Jordi Ortiz, Xavier Ariza* and Jordi Garcia*

Tetrahedron: Asymmetry 14 (2003) 1127

 $[\alpha]_{\rm D} = -14.6 \ (c \ 1.21, \ {\rm CHCl}_3)$ Source of chirality: asymmetric synthesis Absolute configuration: 4S,5Z,7R

Jordi Ortiz, Xavier Ariza* and Jordi Garcia*

OCH₂Ph

(4S,5Z,7R)-7-Benzyloxy-2-methyloct-5-en-4-ol

OH

ŌН

ŌН

 $C_{15}H_{22}O_2$

C₁₆H₂₄O₂

Tetrahedron: Asymmetry 14 (2003) 1127

 $[\alpha]_{\rm D} = -21.8$ (c 0.76, CHCl₃) Source of chirality: asymmetric synthesis Absolute configuration: 3R,4Z,6R

ŌCH₂Ph

(3R,4Z,6R)-6-Benzyloxy-2-methylhept-4-en-3-ol

Jordi Ortiz, Xavier Ariza* and Jordi Garcia*

Tetrahedron: Asymmetry 14 (2003) 1127

 $[\alpha]_{\rm D} = +7.4$ (*c* 0.96, CHCl₃) Source of chirality: asymmetric synthesis Absolute configuration: 3S,4Z,6R

OCH₂Ph C15H22O2 (3S,4Z,6R)-6-Benzyloxy-2-methylhept-4-en-3-ol

OCH₂Ph

 $C_{11}H_{12}O$ (R)-3-Benzyloxybut-1-yne

Jordi Ortiz, Xavier Ariza* and Jordi Garcia*

Tetrahedron: Asymmetry 14 (2003) 1127

E.e. >99% $[\alpha]_{D} = +110.5 (c \ 0.96, \ CHCl_{3})$ Source of chirality: enantiopure starting material Absolute configuration: R















Anna Kulesza, Adam Mieczkowski, Janans Romański and Janusz Jurczak*	Tetrahedron: Asymmetry 14 (2003) 1161
	E.e. >96% $[\alpha]_{D}^{20} = -68.3 \ (c \ 1, \ CHCl_3)$ Source of chirality: (2 <i>R</i>)-bornano-10,2-sultam
$ \begin{array}{c} \overbrace{O}^{N} \\ \overbrace{O}^{N} \\ \overbrace{O}^{N} \\ \overbrace{C_{22}H_{30}N_2O_6S_2}^{N} \\ \end{array} \right) \xrightarrow{I}_{Ts} \\ $	
N-((2'R)-N'-p-Toluenesulphonylisopropoxyglycinoyl)-(2R)-bornano-10,2-sultam imid	e

Anna Kulesza, Adam Mieczkowski, Jan Romański and Janusz Jurczak*

Tetrahedron: Asymmetry 14 (2003) 1161

E.e. >96% $[\alpha]_D^{20} = +31.7$ (*c* 1, CHCl₃) Source of chirality: (*R*)-8-phenylmenthol

Ph^O O HN_{Ts}

 $\label{eq:C28} C_{28} H_{39} NO_5 S$ $N\-((2'S)\-N'\-p\-Toluenesulphonylisopropoxyglycine)\-8\-(R)\-phenylmenthyl ester$

Anna Kulesza, Adam Mieczkowski, Jan Romański and Janusz Jurczak*

Tetrahedron: Asymmetry 14 (2003) 1161

E.e. >96% $[\alpha]_D^{20} = +5.0$ (*c* 1, CHCl₃) Source of chirality: (*R*)-8-phenylmenthol

 $C_{28}H_{39}NO_5S$ N-((2'R)-N'-p-Toluenesulphonylisopropoxyglycine)-8-(R)-phenylmenthyl ester

T۹

Anna Kulesza, Adam Mieczkowski, Jan Romański and Janusz Jurczak*

Tetrahedron: Asymmetry 14 (2003) 1161

E.e. >96% $[\alpha]_{D}^{20} = -10.9 \ (c \ 1, \ CHCl_{3})$ Source of chirality: 10-*N*,*N*-dicyclohexylsulphamoyl-(*R*)-isoborneol

 $C_{34}H_{54}N_2O_7S_2$

N - ((2'R) - N' - p-Toluenesulphonylisopropoxyglycine) - 10 - N, N-dicyclohexylsulphamoyl - (2R) - isoborneyl ester







N-((2'R)-N'-p-Toluenesulphonyl-1,2:3,4-di-O-isopropylidene- α -D-galactopyranosylglycinoyl)-(2R)-bornano-10,2-sultam imide

 $C_{31}H_{44}N_2O_{11}S_2$





Tiziana Mecozzi, Marino Petrini* and Roberto Profeta

Tetrahedron: Asymmetry 14 (2003) 1171

E.e. >98% $[\alpha]_D^{20} = -146.4 \ (c \ 2.0, \ CHCl_3)$ Source of chirality: (S)-4-benzyl-1,3-oxazolidin-2-one

 $C_{14}H_{17}NO_2$ (5*R*,10a*S*)-5-Propyl-1,5,10,10a-tetrahydro[1,3]oxazolo[3,4-*b*]isoquinolin-3-one



E.e. >98% $[\alpha]_{D}^{20} = -109.3 \ (c \ 4.0, \ \text{CHCl}_3)$ Source of chirality: (S)-4-benzyl-1,3-oxazolidin-2-one

Ph C₁₉H₁₉NO₂ (5*R*,10a*S*)-5-(2-Phenylethyl)-1,5,10,10a-tetrahydro[1,3]oxazolo[3,4-*b*]isoquinolin-3-one

Tiziana Mecozzi, Marino Petrini* and Roberto Profeta

Tetrahedron: Asymmetry 14 (2003) 1171



E.e. >98% $[\alpha]_{D}^{20} = -85.1 \ (c \ 2.0, \ CHCl_3)$ Source of chirality: (S)-4-benzyl-1,3-oxazolidin-2-one

 $\label{eq:c16} C_{16}H_{20}ClNO_2$ (5R,10aS)-5-(5-Chloropentyl)-1,5,10,10a-tetrahydro[1,3]oxazolo[3,4-b]isoquinolin-3-one

Tiziana Mecozzi, Marino Petrini* and Roberto Profeta

Tetrahedron: Asymmetry 14 (2003) 1171

BnO

E.e. >98% $[\alpha]_{D}^{20} = -55.7$ (*c* 3.0, CHCl₃) Source of chirality: (S)-4-benzyl-1,3-oxazolidin-2-one

C22H25NO3 (5R,10aS)-5-(4-Benzyloxybutyl)-1,5,10,10a-tetrahydro[1,3]oxazolo[3,4-b]isoquinolin-3-one





Tiziana Mecozzi, Marino Petrini* and Roberto Profeta E.e. = 58% $[\alpha]_{D}^{20} = +5.3$ (*c* 3.7, CHCl₃) MeOCOHN OMe Source of chirality: (R)-5,5-dimethyl-4-phenyl-1,3oxazolidin-2-one nC7H15 OMe

C18H29NO4 (S)-Methyl-1-(2,4-dimethoxyphenyl)octyl carbamate

Tetrahedron: Asymmetry 14 (2003) 1171



M. Baños, E. Román* and J. A. Serrano Tetrahedron: Asymmetry 14 (2003) 1187E.e. = 100% $[\alpha]_D = -1.0 (c \ 0.60, MeOH)$ Source of chirality: asymmetric synthesis from D-mannose Absolute configuration: 1'R,2'R 2-[(1'R,2'R)-1',2',3'-Trihydroxypropyl]benzofuran

M. Baños, E. Román* and J. A. Serrano Tetrahedron: Asymmetry 14 (2003) 1187E.e. = 100% [α]_D = -1.0 (c 0.55, MeOH) Source of chirality: asymmetric synthesis from D-mannose Absolute configuration: 1'R,2R,3R,4R

M. Baños, E. Román* and J. A. Serrano Tetrahedron: Asymmetry 14 (2003) 1187E.e. = 100% $[\alpha]_D = +15.0 (c \ 0.16, CHCl_3)$ Source of chirality: asymmetric synthesis from
D-mannose $C_{19}H_{24}CINO_{10}$ (2S,5R,8R)-2-Acetoxy-8-[(1'R)-1',2'-diacetoxyethyl]-5-chloro-(1R,3R,6S,10S)-7,9-dioxatricyclo-[4.2.2.1^{3,10}]undecane-4-one oxime acetate



Tetrahedron: Asymmetry 14 (2003) 1187

Source of chirality: asymmetric synthesis from Absolute configuration: 1'R,2'R,3'R,4'R









Mp 201–202°C $[\alpha]_D$ –29 (c 0.104, CHCl₃) Source of chirality: (–)-camphorquinone Absolute configuration: (1*S*,5*S*)

(1*S*,5*S*)-1-Bromomethyl-3,3-dibromo-8,8-dimethyl-7-oxabicyclo[3.2.1]octane-2,6-dione

 $C_{10}H_{11}Br_3O_3$

Desmond Cunningham, David H. Grayson,* Patrick McArdle and John J. Walsh

Tetrahedron: Asymmetry 14 (2003) 1197

Mp 137–138°C $[\alpha]_D$ +68.4 (*c* 0.19, CHCl₃) Source of chirality: (–)-camphorquinone Absolute configuration: (1*S*,5*S*)



Desmond Cunningham, David H. Grayson,* Patrick McArdle and John J. Walsh Tetrahedron: Asymmetry 14 (2003) 1197

Mp 139–140°C $[\alpha]_D$ –43.3 (*c* 0.12, CHCl₃) Source of chirality: (–)-camphorquinone Absolute configuration: (1*S*,5*S*)

C₁₀H₁₁Br₂O₃ (1*S*,5*S*)-6,6-Dibromo-1,8,8-trimethyl-2-oxabicyclo[3.2.1]octane-3,7-dione

Richard J. Tennant-Eyles, Benjamin G. Davis and Antony J. Fairbanks*

Tetrahedron: Asymmetry 14 (2003) 1201

E.e. = 100% $[\alpha]_{D}^{22} = +74.4$ (c, 1.17 in CHCl₃) Source of chirality: D-mannose

 $C_{20}H_{24}O_9S$ Phenyl 2,3,4,6-tetra-O-acetyl-1-thio-α-D-mannopyranoside

Richard J. Tennant-Eyles, Benjamin G. Davis and Antony J. Fairbanks*

Tetrahedron: Asymmetry 14 (2003) 1201

E.e. = 100% $[\alpha]_{D}^{23} = +179.8$ (c, 0.97 in CHCl₃) Source of chirality: D-mannose

TBDMSO HC

Phenyl 6-O-tert-butyldimethylsilyl-1-thio-a-D-mannopyranoside

Richard J. Tennant-Eyles, Benjamin G. Davis and Antony J. Fairbanks*

Tetrahedron: Asymmetry 14 (2003) 1201

E.e. = 100% $[\alpha]_{D}^{23} = +46.6 \ (c, \ 0.7 \ in \ CHCl_{3})$ Source of chirality: D-mannose

C42H54O8SSi Phenyl 6-O-tert-butyldimethylsilyl-2,3,4-tri-O-4-methoxybenzyl-1-thio-a-D-mannopyranoside

Richard J. Tennant-Eyles, Benjamin G. Davis and Antony J. Fairbanks*

Tetrahedron: Asymmetry 14 (2003) 1201

E.e. = 100% $[\alpha]_D^{23} = +55.6$ (c, 0.78 in CHCl₃) Source of chirality: D-mannose

 $C_{36}H_{40}O_8S$ Phenyl 2,3,4-tri-O-4-methoxybenzyl-1-thio-α-D-mannopyranoside

ŚPł

SPh C18H30O5SSi

TBDMSC

PMBC

Tetrahedron: Asymmetry 14 (2003) 1201 Richard J. Tennant-Eyles, Benjamin G. Davis and Antony J. Fairbanks* NHFmoc E.e. = 100% $[\alpha]_D^{24} = +46.7$ (c, 1.0 in CHCl₃) CO2CH2CCI3 MB Source of chirality: D-mannose PMBO PMBO ŚPh C57H56O13NSCl3 α-2,2,2-Trichloroethyl-β-carboxy-(phenyl 2,3,4-tri-O-4-methoxybenzyl-α-D-mannopyranos-6-O-yl)-N-9-fluorenylmethoxycarbonyl-Laspartic acid Tetrahedron: Asymmetry 14 (2003) 1201 Richard J. Tennant-Eyles, Benjamin G. Davis and Antony J. Fairbanks* NHFmoc E.e. = 100%ĈO₂H $[\alpha]_{D}^{24} = +79.1$ (c, 0.53 in CHCl₃) PMB Source of chirality: D-mannose C55H54O13NS β -Carboxy-(phenyl 2,3,4-tri-O-4-methoxybenzyl- α -D-mannopyranos-6-O-yl)-N-9-fluorenylmethoxycarbonyl-L-aspartic acid Tetrahedron: Asymmetry 14 (2003) 1201 Richard J. Tennant-Eyles, Benjamin G. Davis and Antony J. Fairbanks* E.e. = 100% $[\alpha]_{D}^{23} = +70.1$ (c, 1.07 in CHCl₃) Source of chirality: D-mannose ÔΜє C14H18O6 Methyl 4,6-O-benzylidene-a-D-mannopyranoside Tetrahedron: Asymmetry 14 (2003) 1201 Richard J. Tennant-Eyles, Benjamin G. Davis and Antony J. Fairbanks* E.e. = 100% $[\alpha]_D^{23} = +69.7$ (c, 0.71 in CHCl₃) Source of chirality: D-mannose ÓMe $C_{14}H_{20}O_{6}$ Methyl 6-O-benzyl-a-D-mannopyranoside

Richard J. Tennant-Eyles, Benjamin G. Davis and Antony J. Fairbanks*

BnO OMe

C32H62O6Si3 Methyl 2,3,4-tri-O-triethylsilyl-6-O-benzyl-α-D-mannopyranoside

Richard J. Tennant-Eyles, Benjamin G. Davis and Antony J. Fairbanks*

C25H56O6Si3 Methyl 2,3,4-tri-O-triethylsilyl-a-D-mannopyranoside

,NHFmod

ĈO₂Bn

ÓМе C51H77O11NSi3

Richard J. Tennant-Eyles, Benjamin G. Davis and

Tetrahedron: Asymmetry 14 (2003) 1201

E.e. = 100% $[\alpha]_{D}^{23} = +38.5$ (c, 1.38 in CHCl₃) Source of chirality: D-mannose

Antony J. Fairbanks*

E.e. = 100% $[\alpha]_{D}^{23} = +35.9$ (c, 0.57 in CHCl₃) Source of chirality: D-mannose

Richard J. Tennant-Eyles, Benjamin G. Davis and

Antony J. Fairbanks*

BnOa NHFmod MP ÓМе



Tetrahedron: Asymmetry 14 (2003) 1201

Tetrahedron: Asymmetry 14 (2003) 1201

E.e. = 100% $[\alpha]_D^{24} = +43.7$ (c, 1.32 in CHCl₃) Source of chirality: D-mannose

α-Benzyl-β-carboxy-(methyl 2,3,4-tri-O-triethylsilyl-α-D-mannopyranos-6-O-yl)-L-aspartyl-β-carboxy-(phenyl 2,3,4-tri-O-4-methoxybenzyl-α-D-mannopyranos-6-O-yl)-N-9-fluorenylmethoxycarbonyl-L-aspartic acid

 α -Benzyl- β -carboxy-(methyl 2,3,4-tri-O-triethylsilyl- α -D-mannopyranos-6-O-yl)-N-9-fluorenylmethoxycarbonyl-L-aspartic acid

Tetrahedron: Asymmetry 14 (2003) 1201

E.e. = 100% $[\alpha]_{D}^{23} = +35.3$ (c, 1.68 in CHCl₃) Source of chirality: D-mannose

Antony J. Fairbanks* E.e. = 100% $[\alpha]_{D}^{23} = +30.4$ (c, 0.26 in CHCl₃) Source of chirality: D-mannose C27H38O18 2,3,4,6-Tetra-O-acetyl-α-D-mannopyranose-(1-3)-methyl 2,4,6-tri-O-acetyl-α-D-mannopyranoside Tetrahedron: Asymmetry 14 (2003) 1201 Richard J. Tennant-Eyles, Benjamin G. Davis and Antony J. Fairbanks* E.e. = 100%NHFmoc $[\alpha]_{D}^{23} = +31.0$ (c, 0.93 in CHCl₃) ĒO₂H Source of chirality: D-mannose ES ÓMe C44H71O11NSi3 β-Carboxy-(methyl 2,3,4-tri-O-triethylsilyl-α-D-mannopyranos-6-O-yl)-N-9-fluorenylmethoxycarbonyl-L-aspartic acid Tetrahedron: Asymmetry 14 (2003) 1211 Geoffrey D. Coxon, Juma R. Al-Dulayymi, Mark S. Baird, Stefan Knobl, Evan Roberts and David E. Minnikin* E.e. = 100% $[\alpha]_{D}^{24} = -0.31$ (c 3.85, CHCl₃) Me(CH₂)₄ Source of chirality: asymmetric synthesis Absolute configuration: (1S,2R) or (11S,12R)HO₂C(CH₂)₈ 2 C19H36O2 (1S,2R)-1-(9'-Carboxynon-1'-yl)-2-hexylcyclopropane or (11S,12R)-lactobacillic acid enantiomer Tetrahedron: Asymmetry 14 (2003) 1211 Geoffrey D. Coxon, Juma R. Al-Dulayymi, Mark S. Baird, Stefan Knobl. Evan Roberts and David E. Minnikin*

> E.e. = 100% $[\alpha]_D^{24} = +67.3 \ (c \ 4.6, \ CHCl_3)$ Source of chirality: asymmetric synthesis Absolute configuration: (4'S)

Tetrahedron: Asymmetry 14 (2003) 1201

C₁₃H₂₄O₂ (1*Z*,4'*S*)-(2',2'-Dimethyl-1',3'-dioxolan-4'-yl)-1-octene

3

Me(CH₂)₂

Richard J. Tennant-Eyles, Benjamin G. Davis and







Geoffrey D. Coxon, Juma R. Al-Dulayymi, Mark S. Baird,
Stefan Knobl, Evan Roberts and David E. Minnikin*Tetrahedron: Asymmetry 14 (2003) 1211 $PrCOO \rightarrow H$
 $O \rightarrow f$
 $C_9H_{14}O_3$ E.e. = 100%
[α]_D^2 = +88.9 (c 2.14, CHCl_3)
Source of chirality: asymmetric synthesis
Absolute configuration: (1R,2S)

(1R,2S)-1-Butryloxymethyl-2-formylcyclopropane





Geoffrey D. Coxon, Juma R. Al-Dulayymi, Mark S. Baird, Stefan Knobl, Evan Roberts and David E. Minnikin* $THPO(CH_{2})_{8} \longrightarrow H H H Line C_{23}H_{42}O_{2}$ (I'Z,1R,2S)-2-Hexyl-1-[[(10'-tetrahydropyranyl)oxy]dec-1'-en-1'-yl]cyclopropaneTetrahedron: Asymmetry 14 (2003) 1211 $E.e. = 100\% [x]_{2}^{2} = +36.8 (c \ 0.06, CHCl_{3})$ Source of chirality: asymmetric synthesis Absolute configuration: (1R,2S)













Geoffrey D. Coxon, Juma R. Al-Dulayymi, Mark S. Baird, Stefan Knobl, Evan Roberts and David E. Minnikin*

(1'Z, 1S, 2R)-2-(Hex-1'-en-1'-yl)-1-[[(10''-tetrahydropyranyl)oxy]decyl]cyclopropane

E.e. = 100% $[\alpha]_{D}^{24} = +45.1 \ (c \ 1.69, \ CHCl_{3})$ Source of chirality: asymmetric synthesis Absolute configuration: (1S, 2R)

E.e. = 100%Me(CH₂)3⁻ THPO(CH2)9 20 C23H42O2

Tetrahedron: Asymmetry 14 (2003) 1211

 $[\alpha]_{D}^{24} = +23.1$ (c 1.27, CHCl₃) Source of chirality: asymmetric synthesis Absolute configuration: (1S, 2R)

Tetrahedron: Asymmetry 14 (2003) 1211 Geoffrey D. Coxon, Juma R. Al-Dulayymi, Mark S. Baird, Stefan Knobl. Evan Roberts and David E. Minnikin* E.e. = 100% $[\alpha]_{D}^{24} = +12.8 \ (c \ 2.35, \ CHCl_{3})$ Source of chirality: asymmetric synthesis Me(CH₂)₄ Absolute configuration: (1S,2R)THPO(CH₂)9 21

C23H44O2 (1S,2R)-2-Hexyl-1-[[(10'-tetrahydropyranyl)oxy]decyl]cyclopropane





(1S,2R)-1-Butyryloxymethyl-2-formylcyclopropane

Geoffrey D. Coxon, Juma R. Al-Dulayymi, Mark S. Baird, Stefan Knobl, Evan Roberts and David E. Minnikin*



 $C_{10}H_{20}O$ (1*S*,2*R*)-2-Hexyl-1-hydroxymethylcyclopropane Tetrahedron: Asymmetry 14 (2003) 1211

E.e. = 100% $[\alpha]_D^{24} = -26.1 \ (c \ 1.1, \ CHCl_3)$ Source of chirality: asymmetric synthesis Absolute configuration: (1S, 2R)

E.e. = 100%

 $[\alpha]_{D}^{24} = -66.0 \ (c \ 1.45, \ CHCl_{3})$

Source of chirality: asymmetric synthesis Absolute configuration: (1S,2R)

Geoffrey D. Coxon, Juma R. Al-Dulayymi, Mark S. Baird, Stefan Knobl. Evan Roberts and David E. Minnikin*

Me(CH₂)₄ H 0 H 27

C₁₀H₁₈O (1*S*,2*R*)-1-Formyl-2-hexylcyclopropane Tetrahedron: Asymmetry 14 (2003) 1211

E.e. = 100% $[\alpha]_{D}^{24} = -18.6 \ (c \ 1.4, \ CHCl_3)$ Source of chirality: asymmetric synthesis Absolute configuration: (1S,2R)







Françoise Escale and Jean Martinez

(1-Carbamoylmethyl-4, 4-dimethyl-2-oxopyrrolidinyl)-3-phthalimido-2-phenyl propionate and the second seco

Rhalid Akkari, Monique Calmès,* Delphine Di Malta,

OCH₃

Tetrahedron: Asymmetry 14 (2003) 1223

E.e. = 100%; d.e. = 70% $[\alpha]_{D}^{20} = +18$ (*c* 2 in AcOEt) Source of chirality: resin-supported (*S*)-(3-hydroxy-4,4-dimethyl-2-oxopyrrolidin-1-yl) acetic acid Absolute configuration: (*S*,*R*)





(1-Carbamoylmethyl-4, 4-dimethyl-2-oxopyrrolidinyl)-3-phthalimido-2-(4-fluorophenyl) propionate (1-Carbamoylmethyl-3-phthalimido-2-(4-fluorophenyl) propionate (1-Carbamoylmethyl-3-phthalimido-3-phth