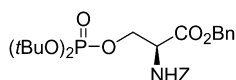


Stereochemistry abstracts

Amira Khaled, Christine Gravier-Pelletier* and Yves Le Merrer*

Tetrahedron: Asymmetry 18 (2007) 2121



$C_{26}H_{36}NO_8P$

2(S)-2-Benzyloxycarbonylamino-3-(di-*tert*-butoxy-phosphoryloxy)-propionic acid benzyl ester

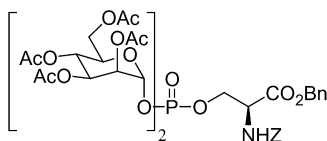
De >95% (by 1H NMR)

$[\alpha]_D^{20} = -6$ (c 1.0, CH_2Cl_2)

Source of chirality: *N*-benzyloxycarbonyl L-serine benzyl ester

Amira Khaled, Christine Gravier-Pelletier* and Yves Le Merrer*

Tetrahedron: Asymmetry 18 (2007) 2121



$C_{46}H_{56}NO_{26}P$

2(S)-2-Benzyloxycarbonylamino-3-[bis-(2,3,4,6-tetra-*O*-acetyl- α -D-mannopyranosyloxy)phosphoryloxy]-propionic acid benzyl ester

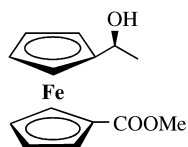
De >95% (by 1H NMR)

$[\alpha]_D^{20} = +45$ (c 1.0, CH_2Cl_2)

Source of chirality: *N*-benzyloxycarbonyl L-serine benzyl ester and 2,3,4,6-tetra-*O*-acetyl- α -D-mannopyranosyl bromide

M. Čakić Semenčić, L. Barišić and V. Rapić*

Tetrahedron: Asymmetry 18 (2007) 2125



$C_{14}H_{16}O_3Fe$

Methyl 1'-(1-hydroxyethyl)ferrocene-1-carboxylate

Ee = 90%

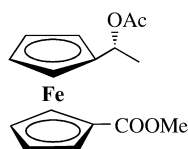
$[\alpha]_D^{22} = +30.4$ (c 1.0, $CHCl_3$)

Source of chirality: kinetic resolution with lipase B from *Candida antarctica*

Absolute configuration: (S)

M. Čakić Semenčić, L. Barišić and V. Rapić*

Tetrahedron: Asymmetry 18 (2007) 2125



$C_{16}H_{18}O_4Fe$

Methyl 1'-(1-acetoxyethyl)ferrocene-1-carboxylate

Ee = 99%

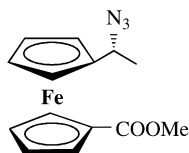
$[\alpha]_D^{22} = -46$ (c 0.79, $CHCl_3$)

Source of chirality: kinetic resolution with lipase B from *Candida antarctica*

Absolute configuration: (R)

M. Čakić Semenčić, L. Barišić and V. Rapić*

Tetrahedron: Asymmetry 18 (2007) 2125



$C_{14}H_{15}O_2N_3Fe$

Methyl 1'-(1-azidoethyl)ferrocene-1-carboxylate

Ee = 99%

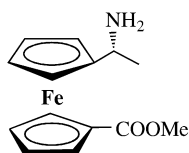
$[\alpha]_D^{22} = -81.2$ (c 1.0, $CHCl_3$)

Source of chirality: enantiopure starting material

Absolute configuration: (R)

M. Čakić Semenčić, L. Barišić and V. Rapić*

Tetrahedron: Asymmetry 18 (2007) 2125



$C_{14}H_{17}O_2NFe$

Methyl 1'-(1-aminoethyl)ferrocene-1-carboxylate

Ee = n.d.

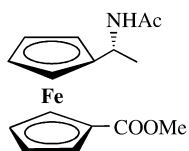
$[\alpha]_D^{22} = -8.3$ (c 0.5, $CHCl_3$)

Source of chirality: enantiopure starting material

Absolute configuration: (R)

M. Čakić Semenčić, L. Barišić and V. Rapić*

Tetrahedron: Asymmetry 18 (2007) 2125



$C_{16}H_{19}O_3NFe$

Methyl 1'-(1-acetamidoethyl)ferrocene-1-carboxylate

Ee = 98%

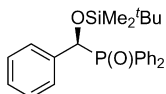
$[\alpha]_D^{22} = +99$ (c 1.0, benzene)

Source of chirality: enantiopure starting material

Absolute configuration: (R)

Yutaka Matsuura, Toshikazu Yamasaki, Yutaka Watanabe and Minoru Hayashi*

Tetrahedron: Asymmetry 18 (2007) 2129



$C_{25}H_{31}O_2PSi$

(S)-1-tert-Butyldimethylsilyloxy-1-phenylmethyldiphenylphosphine oxide

Ee = 80%

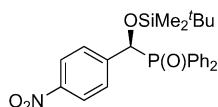
$[\alpha]_D = +33.2$ (c 0.5, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)

Yutaka Matsuura, Toshikazu Yamasaki, Yutaka Watanabe and Minoru Hayashi*

Tetrahedron: Asymmetry 18 (2007) 2129



$C_{25}H_{30}NO_4PSi$

(*S*)-1-*tert*-Butyldimethylsilyloxy-1-(4'-nitrophenyl)methyldiphenylphosphine oxide

Ee = 82%

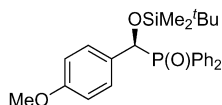
$[\alpha]_D = +59.1$ (*c* 0.5, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Yutaka Matsuura, Toshikazu Yamasaki, Yutaka Watanabe and Minoru Hayashi*

Tetrahedron: Asymmetry 18 (2007) 2129



$C_{26}H_{33}O_3PSi$

(*S*)-1-*tert*-Butyldimethylsilyloxy-1-(4'-methoxyphenyl)methyldiphenylphosphine oxide

Ee = 32%

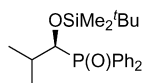
$[\alpha]_D = +5.3$ (*c* 0.1, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Yutaka Matsuura, Toshikazu Yamasaki, Yutaka Watanabe and Minoru Hayashi*

Tetrahedron: Asymmetry 18 (2007) 2129



$C_{22}H_{33}O_2PSi$

(*S*)-1-*tert*-Butyldimethylsilyloxy-2-methylpropyldiphenylphosphine oxide

Ee = 72%

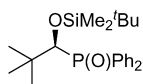
$[\alpha]_D = -55.3$ (*c* 0.2, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Yutaka Matsuura, Toshikazu Yamasaki, Yutaka Watanabe and Minoru Hayashi*

Tetrahedron: Asymmetry 18 (2007) 2129



$C_{23}H_{35}O_2PSi$

(*S*)-1-*tert*-Butyldimethylsilyloxy-2,2-dimethylpropyldiphenylphosphine oxide

Ee = 68%

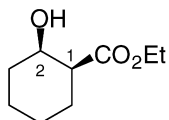
$[\alpha]_D = +33.0$ (*c* 0.1, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Santosh Kumar Padhi, Iwona A. Kaluzna, Didier Buisson,*
Robert Azerad and Jon D. Stewart*

Tetrahedron: Asymmetry 18 (2007) 2133



C₉H₁₆O₃

cis-(1*S*,2*R*) Ethyl 2-hydroxycyclohexanecarboxylate

Ee = 80%

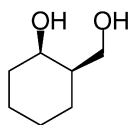
[α]_D = -27.5 (*c* 0.6, CHCl₃)

Source of chirality: enzymatic reduction

Absolute configuration: (1*S*,2*R*)

Santosh Kumar Padhi, Iwona A. Kaluzna, Didier Buisson,*
Robert Azerad and Jon D. Stewart*

Tetrahedron: Asymmetry 18 (2007) 2133



C₇H₁₄O₂

(1*R*,2*R*)-2-(Hydroxymethyl)-cyclohexanol

Ee = 80%

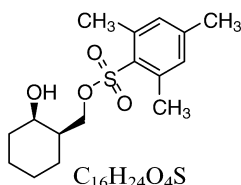
[α]_D = -32.1 (*c* 0.24, H₂O)

Source of chirality: prior enzymatic reduction

Absolute configuration: (1*R*,2*R*)

Santosh Kumar Padhi, Iwona A. Kaluzna, Didier Buisson,*
Robert Azerad and Jon D. Stewart*

Tetrahedron: Asymmetry 18 (2007) 2133



C₁₆H₂₄O₄S

((1*R*,2*R*)-2-Hydroxycyclohexyl)methyl 2,4,6-trimethyl-benzenesulfonate

Ee = 80%

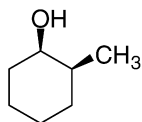
[α]_D = -9.5 (*c* 1.0, CHCl₃)

Source of chirality: prior enzymatic reduction

Absolute configuration: (1*R*,2*R*)

Santosh Kumar Padhi, Iwona A. Kaluzna, Didier Buisson,*
Robert Azerad and Jon D. Stewart*

Tetrahedron: Asymmetry 18 (2007) 2133



C₇H₁₄O

(1*R*,2*S*)-2-Methyl-cyclohexanol

Ee = 80%

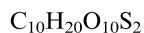
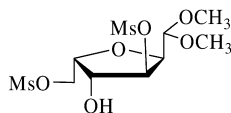
[α]_D = -16.2 (*c* 2.12, CHCl₃)

Source of chirality: prior enzymatic reduction

Absolute configuration: (1*R*,2*S*)

Fang Wang, Zhen-Jun Yang,* Hong-Wei Jin, Liang-Ren Zhang and Li-He Zhang

Tetrahedron: Asymmetry 18 (2007) 2139



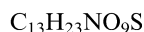
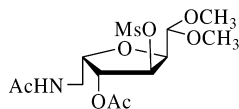
3,6-Di-*O*-methanesulfonyl-2,5-anhydro-L-idofuranose dimethylacetal

$$[\alpha]_{\text{D}}^{25} = +10.1 (c\ 0.16, \text{MeOH})$$

Source of chirality: L-idofuranose

Fang Wang, Zhen-Jun Yang,* Hong-Wei Jin, Liang-Ren Zhang and Li-He Zhang

Tetrahedron: Asymmetry 18 (2007) 2139



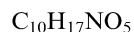
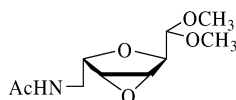
3-*O*-Methanesulfonyl-4-*O*-acetyl-6-deoxy-6-acetyl-amino-2,5-anhydro-L-idofuranose dimethylacetal

$$[\alpha]_{\text{D}}^{25} = -5.5 (c\ 0.42, \text{MeOH})$$

Source of chirality: L-idofuranose

Fang Wang, Zhen-Jun Yang,* Hong-Wei Jin, Liang-Ren Zhang and Li-He Zhang

Tetrahedron: Asymmetry 18 (2007) 2139



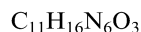
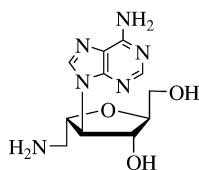
6-Deoxy-6-acetyl-amino-2,5:3,4-dianhydro-L-talose dimethylacetal

$$[\alpha]_{\text{D}}^{25} = +34.6 (c\ 0.47, \text{MeOH})$$

Source of chirality: L-talose

Fang Wang, Zhen-Jun Yang,* Hong-Wei Jin, Liang-Ren Zhang and Li-He Zhang

Tetrahedron: Asymmetry 18 (2007) 2139



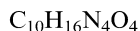
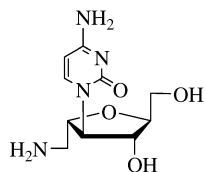
4,6-Dideoxy-4-(adenin-9-yl)-6-amino-2,5-anhydro-L-mannitol

$$[\alpha]_{\text{D}}^{25} = -11.0 (c\ 0.07, \text{MeOH})$$

Source of chirality: L-mannitol

Fang Wang, Zhen-Jun Yang,* Hong-Wei Jin, Liang-Ren Zhang and Li-He Zhang

Tetrahedron: Asymmetry 18 (2007) 2139



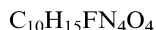
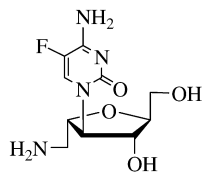
4,6-Dideoxy-4-(cytosin-1-yl)-6-amino-2,5-anhydro-L-mannitol

$[\alpha]_D^{25} = -6.4$ (*c* 0.20, MeOH)

Source of chirality: L-mannitol

Fang Wang, Zhen-Jun Yang,* Hong-Wei Jin, Liang-Ren Zhang and Li-He Zhang

Tetrahedron: Asymmetry 18 (2007) 2139



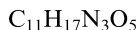
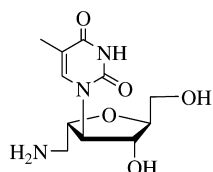
4,6-Dideoxy-4-(5-fluorocytosin-1-yl)-6-amino-2,5-anhydro-L-mannitol

$[\alpha]_D^{25} = -15.0$ (*c* 0.08, MeOH)

Source of chirality: L-mannitol

Fang Wang, Zhen-Jun Yang,* Hong-Wei Jin, Liang-Ren Zhang and Li-He Zhang

Tetrahedron: Asymmetry 18 (2007) 2139



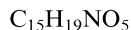
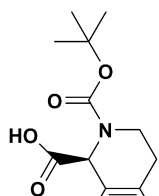
4,6-Dideoxy-4-(thymine-1-yl)-6-amino-2,5-anhydro-L-mannitol

$[\alpha]_D^{25} = -10.0$ (*c* 0.07, MeOH)

Source of chirality: L-mannitol

Iqbal S. Gill, Ellen Kick, Kate Richlin-Zack, Wu Yang, Yufeng Wang and Ramesh N. Patel*

Tetrahedron: Asymmetry 18 (2007) 2147



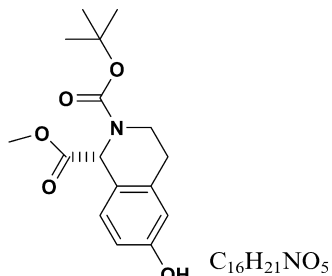
(1S)-N-*t*Boc-6-Hydroxy-3,4-dihydro-1H-isoquinoline-1-carboxylic acid

Ee > 99.8%

$[\alpha]_D^{20} = -19.2$ (*c* 0.2, methanol)

Iqbal S. Gill, Ellen Kick, Kate Richlin-Zack, Wu Yang, Yufeng Wang and Ramesh N. Patel*

Tetrahedron: Asymmetry 18 (2007) 2147



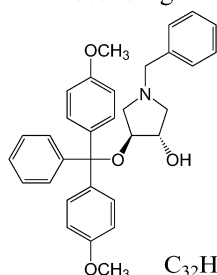
Ee > 99.5%

$[\alpha]_{\text{D}}^{20} = +18.2$ (c 0.2, methanol)

$\text{C}_{16}\text{H}_{21}\text{NO}_5$
Methyl (1R)-N-*tert*Boc-6-hydroxy-3,4-dihydro-1H-isoquinoline-1-carboxylate

Dominik Rejman,* Petr Kočalka, Miloš Buděšínský, Ivan Barvík, Jr. and Ivan Rosenberg*

Tetrahedron: Asymmetry 18 (2007) 2165



$[\alpha]_{\text{D}}^{20} = +35.8$ (c 0.396, ethanol)

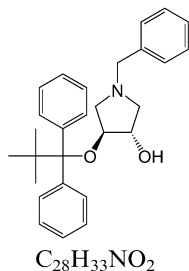
Source of chirality: 3,4-dihydroxypyrrolidine

Absolute configuration: (3S,4S)

$\text{C}_{32}\text{H}_{33}\text{NO}_4$
(3S,4S)-1-N-Benzyl-3-dimethoxytrityloxy-4-hydroxypyrrolidine

Dominik Rejman,* Petr Kočalka, Miloš Buděšínský, Ivan Barvík, Jr. and Ivan Rosenberg*

Tetrahedron: Asymmetry 18 (2007) 2165



$[\alpha]_{\text{D}}^{20} = +27.8$ (c 0.416, ethanol)

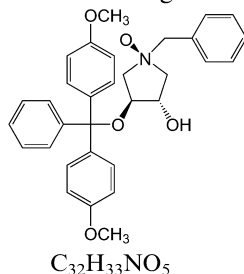
Source of chirality: 3,4-dihydroxypyrrolidine

Absolute configuration: (3S,4S)

$\text{C}_{28}\text{H}_{33}\text{NO}_2$
(3S,4S)-1-N-Benzyl-3-*tert*-butyldiphenylsilyloxy-4-hydroxypyrrolidine

Dominik Rejman,* Petr Kočalka, Miloš Buděšínský, Ivan Barvík, Jr. and Ivan Rosenberg*

Tetrahedron: Asymmetry 18 (2007) 2165



$[\alpha]_{\text{D}}^{20} = +31.3$ (c 0.419, ethanol)

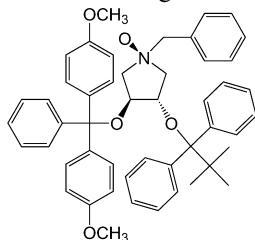
Source of chirality: 1-benzyl-3,4-dihydroxypyrrolidine-*N*-oxide

Absolute configuration: (1S,3S,4S)

$\text{C}_{32}\text{H}_{33}\text{NO}_5$
(1S,3S,4S)-1-N-Benzyl-3-dimethoxytrityloxy-4-hydroxy-1-N-oxidopyrrolidine

Dominik Rejman,* Petr Kočalka, Miloš Buděšínský, Ivan Barvík, Jr.
and Ivan Rosenberg*

Tetrahedron: Asymmetry 18 (2007) 2165



$C_{49}H_{51}NO_5$

(1*S*,3*S*,4*S*)-1-*N*-Benzyl-4-*tert*-butyldiphenylsilyloxy-3-dimethoxytrityloxy-1-*N*-oxidopyrrolidine

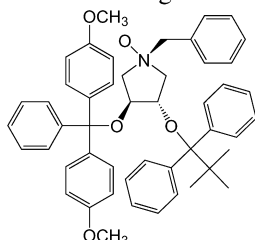
$[\alpha]_D^{20} = +53.1$ (*c* 0.199, ethanol)

Source of chirality: 1-benzyl-3,4-dihydroxypyrrolidine-*N*-oxide

Absolute configuration: (1*S*,3*S*,4*S*)

Dominik Rejman,* Petr Kočalka, Miloš Buděšínský, Ivan Barvík, Jr.
and Ivan Rosenberg*

Tetrahedron: Asymmetry 18 (2007) 2165



$C_{49}H_{51}NO_5$

(1*R*,3*S*,4*S*)-1-*N*-Benzyl-4-*tert*-butyldiphenylsilyloxy-3-dimethoxytrityloxy-1-*N*-oxidopyrrolidine

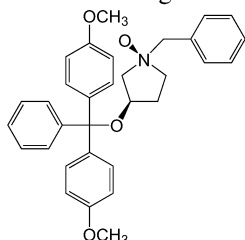
$[\alpha]_D^{20} = +37.6$ (*c* 0.507, ethanol)

Source of chirality: 1-benzyl-3,4-dihydroxypyrrolidine-*N*-oxide

Absolute configuration: (1*R*,3*S*,4*S*)

Dominik Rejman,* Petr Kočalka, Miloš Buděšínský, Ivan Barvík, Jr.
and Ivan Rosenberg*

Tetrahedron: Asymmetry 18 (2007) 2165



$C_{32}H_{33}NO_4$

(1*R*,3*R*)-1-*N*-Benzyl-3-dimethoxytrityloxy-1-*N*-oxidopyrrolidine

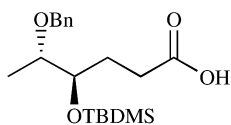
$[\alpha]_D^{20} = -20.1$ (*c* 0.384, ethanol)

Source of chirality: 1-benzyl-3-hydroxypyrrolidine-*N*-oxide

Absolute configuration: (1*R*,3*R*)

Gangavaram V. M. Sharma* and Kagita Veera Babu

Tetrahedron: Asymmetry 18 (2007) 2175



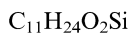
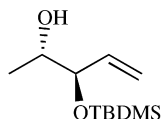
$C_{19}H_{32}O_4Si$

(4*R*,5*S*)-5-(Benzyloxy)-4-[1-(*tert*-butyl)-1,1-dimethylsilyl]oxyhexanoic acid

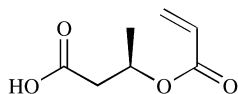
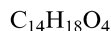
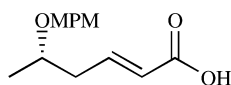
$[\alpha]_D = +22.0$ (*c* 0.2, $CHCl_3$)

Source of chirality: asymmetric synthesis

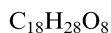
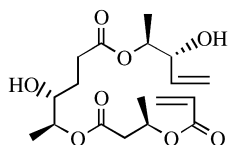
Absolute configuration: (4*R*,5*S*)

(2*S*,3*R*)-3-[1-(*tert*-Butyl)-1,1-dimethylsilyl]oxy-4-penten-2-ol $[\alpha]_{\text{D}} = +51.7$ (*c* 0.25, CHCl_3)

Source of chirality: asymmetric synthesis

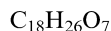
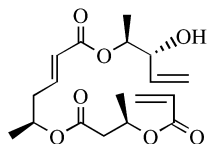
Absolute configuration: (2*S*,3*R*)(3*R*)-3-Acryloyloxybutanoic acid $[\alpha]_{\text{D}} = +10.3$ (*c* 0.2, CHCl_3)Source of chirality: (*S*)-malic acidAbsolute configuration: (3*R*)(E,5*S*)-5-[(4-Methoxybenzyl)oxy]-2-hexenoic acid $[\alpha]_{\text{D}} = +58.1$ (*c* 0.25, CHCl_3)

Source of chirality: asymmetric synthesis

Absolute configuration: (5*S*)(1*R*)-3-(((1*S*,2*R*)-2-Hydroxy-5-[(1*S*,2*R*)-2-hydroxy-1-methyl-3-butenyl]oxy-1-methyl-5-oxopentyl)oxy)-1-methyl-3-oxopropyl acrylate $[\alpha]_{\text{D}} = +1.3$ (*c* 0.5, CHCl_3)

Source of chirality: asymmetric synthesis

Absolute configuration: (1*R*,1*aS*,2*aR*,1*bS*,2*bR*)

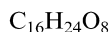
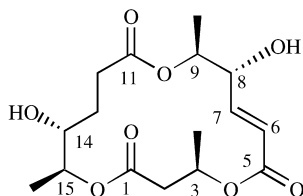


(1*S*,2*R*)-2-Hydroxy-1-methyl-3-butenyl (*E*,5*S*)-5-[(3*R*)-3-(acryloyloxy)butanoyl]oxy-2-hexenoate

$[\alpha]_D = -23.7$ (*c* 0.1, CHCl_3)

Source of chirality: asymmetric synthesis

Absolute configuration: (1*S*,2*R*,5*aS*,3*bR*)

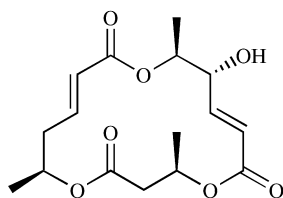


Macrosphelide I (**1**)

$[\alpha]_D = +9.6$ (*c* 0.15, CHCl_3)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*R*,8*R*,9*S*,14*R*,15*S*)

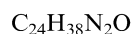
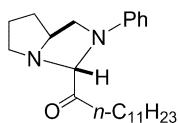


Macrosphelide G (**2**)

$[\alpha]_D = +54.3$ (*c* 0.1, CHCl_3)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*R*,8*R*,9*S*,15*S*)



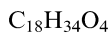
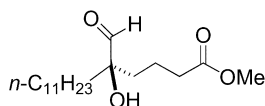
(2*R*,5*S*)-2-Dodecanoyl-3-phenyl-1,3-diazabicyclo-[3,3,0]-octane

$[\alpha]_D^{23} = -29.3$ (*c* 1.0, CHCl_3)

Absolute configuration: (2*R*,5*S*)

Chenxia Zhang, Naoya Hosoda and Masatoshi Asami*

Tetrahedron: Asymmetry 18 (2007) 2185



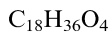
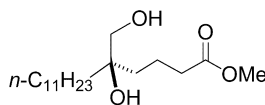
Methyl (*R*)-4-formyl-4-hydroxyhexadecanoate

$$[\alpha]_{\text{D}}^{24} = +5.9 \text{ (} c \text{ 1.0, CHCl}_3 \text{)}$$

Absolute configuration: (*R*)

Chenxia Zhang, Naoya Hosoda and Masatoshi Asami*

Tetrahedron: Asymmetry 18 (2007) 2185



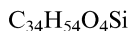
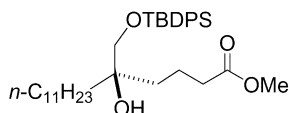
Methyl (*R*)-4-hydroxy-4-hydroxymethylhexadecanoate

$$[\alpha]_{\text{D}}^{24} = -1.1 \text{ (} c \text{ 1.0, CHCl}_3 \text{)}$$

Absolute configuration: (*R*)

Chenxia Zhang, Naoya Hosoda and Masatoshi Asami*

Tetrahedron: Asymmetry 18 (2007) 2185



Methyl (*R*)-5-*tert*-butyldiphenylsilyloxymethyl-5-hydroxyhexadecanoate

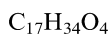
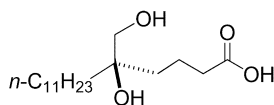
Ee >99%

$$[\alpha]_{\text{D}}^{28} = -2.7 \text{ (} c \text{ 0.25, CHCl}_3 \text{)}$$

Absolute configuration: (*R*)

Chenxia Zhang, Naoya Hosoda and Masatoshi Asami*

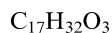
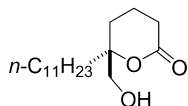
Tetrahedron: Asymmetry 18 (2007) 2185



(*R*)-4-Hydroxy-4-hydroxymethylhexadecanoic acid

$$[\alpha]_{\text{D}}^{27} = -0.8 \text{ (} c \text{ 1.0, CHCl}_3 \text{)}$$

Absolute configuration: (*R*)

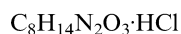
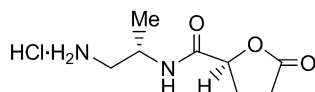


(+) -Tanikolide

Ee >99%

 $[\alpha]_{\text{D}}^{23} = +2.85$ (c 0.65, CHCl_3)

Absolute configuration: (R)

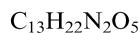
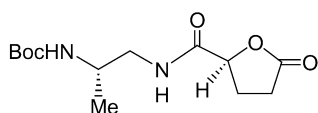


N-(1'-Amino-(S)-2'-propyl)-5-oxo-(S)-2-tetrahydrofurancarboxamide hydrochloride

Ee = 100%

 $[\alpha]_{\text{D}}^{24} = +40.0$ (c 1.0, DMSO)

Source of chirality: L-alanine and L-glutamic acid

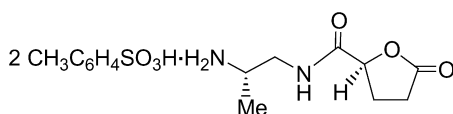


N-[(S)-2'-N-(tert-Butoxycarbonyl)amino-1'-propyl]-5-oxo-(S)-2-tetrahydrofuran carboxamide

Ee = 100%

 $[\alpha]_{\text{D}}^{24} = -17.2$ (c 1, CHCl_3)

Source of chirality: L-alanine and L-glutamic acid



N-[(S)-2'-Amino-1'-propyl]-5-oxo-(S)-2-tetrahydrofurancarboxamide p-toluenesulfonate

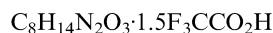
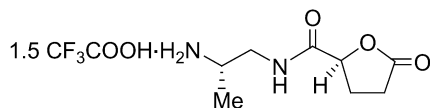
Ee = 100%

 $[\alpha]_{\text{D}}^{24} = +10.6$ (c 0.6, DMSO)

Source of chirality: L-alanine and L-glutamic acid

Romina V. Gómez and Oscar Varela*

Tetrahedron: Asymmetry 18 (2007) 2190



N-[(*S*)-2'-Amino-1'-propyl]-5-oxo-(*S*)-2-tetrahydrofurancarboxamide trifluoroacetate

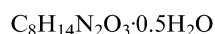
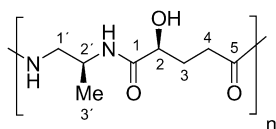
Ee = 100%

$[\alpha]_{\text{D}}^{24} = +5.8$ (*c* 1, DMSO)

Source of chirality: L-alanine and L-glutamic acid

Romina V. Gómez and Oscar Varela*

Tetrahedron: Asymmetry 18 (2007) 2190



Poly[*N*-(1'-amino-(*S*)-2'-propyl)-carboxyamido-(*S*)-2-hydroxypentan-5-oic acid]

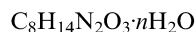
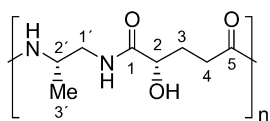
Ee = 100%

$[\alpha]_{\text{D}}^{24} = -27.4$ (*c* 1, DMSO)

Source of chirality: L-alanine and L-glutamic acid

Romina V. Gómez and Oscar Varela*

Tetrahedron: Asymmetry 18 (2007) 2190



Poly[*N*-[(*S*)-2'-amino-1'-propyl]-carboxyamido-(*S*)-2-hydroxypentan-5-oic acid]

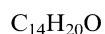
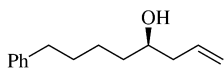
Ee = 100%

$[\alpha]_{\text{D}}^{24} = -15.0$ (*c* 0.5, DMSO)

Source of chirality: L-alanine and L-glutamic acid

Palakodety Radha Krishna* and Ravula Srinivas

Tetrahedron: Asymmetry 18 (2007) 2197



(4*R*)-8-Phenyl-1-octen-4-ol

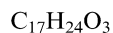
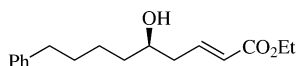
$[\alpha]_{\text{D}} = +53.8$ (*c* 0.35, CHCl_3)

Source of chirality: asymmetric synthesis

Absolute configuration: (4*R*)

Palakodety Radha Krishna* and Ravula Srinivas

Tetrahedron: Asymmetry 18 (2007) 2197



Ethyl (*E*,5*R*)-5-hydroxy-9-phenyl-2-nonenolate

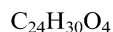
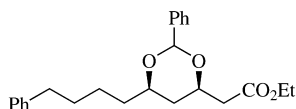
$[\alpha]_{\text{D}} = -13.1$ (*c* 0.93, CHCl_3)

Source of chirality: asymmetric synthesis

Absolute configuration: (5*R*)

Palakodety Radha Krishna* and Ravula Srinivas

Tetrahedron: Asymmetry 18 (2007) 2197



Ethyl 2-[(4*R*,6*R*)-2-phenyl-6-(4-phenylbutyl)-1,3-dioxan-4-yl]acetate

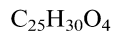
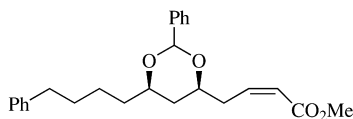
$[\alpha]_{\text{D}} = -3.6$ (*c* 0.76, CHCl_3)

Source of chirality: asymmetric synthesis

Absolute configuration: (4*R*,6*R*)

Palakodety Radha Krishna* and Ravula Srinivas

Tetrahedron: Asymmetry 18 (2007) 2197



Methyl (*Z*)-4-[(4*S*,6*R*)-2-phenyl-6-(4-phenylbutyl)-1,3-dioxan-4-yl]-2-butenolate

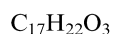
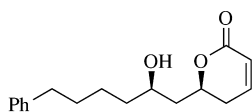
$[\alpha]_{\text{D}} = -11.65$ (*c* 0.46, CHCl_3)

Source of chirality: asymmetric synthesis

Absolute configuration: (4*S*,6*R*)

Palakodety Radha Krishna* and Ravula Srinivas

Tetrahedron: Asymmetry 18 (2007) 2197



(6*S*)-5,6-Dihydro-6-[(2*R*)-2-hydroxy-6-phenylhexyl]-2*H*-pyran-2-one

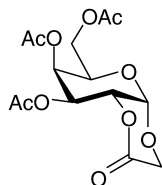
$[\alpha]_{\text{D}} = -66.5$ (*c* 0.81, CHCl_3)

Source of chirality: asymmetric synthesis

Absolute configuration: (6*S*,2*R*)

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert, Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



$C_{14}H_{18}O_{10}$

Carboxymethyl-3,4,6-tri-*O*-acetyl- α -D-galactopyranoside-2-*O*-lactone

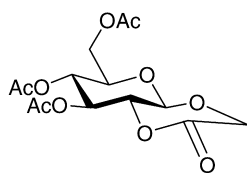
Ee = 100%

$[\alpha]_D = +113$ (*c* 0.9, $CHCl_3$)

Source of chirality: allyl- α -D-galactopyranoside

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert, Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



$C_{14}H_{18}O_{10}$

Carboxymethyl-3,4,6-tri-*O*-acetyl- β -D-glucopyranoside-2-*O*-lactone

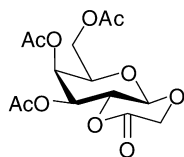
Ee = 100%

$[\alpha]_D = +93$ (*c* 1, CH_2Cl_2)

Source of chirality: allyl- β -D-glucopyranoside

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert,
Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



$C_{14}H_{18}O_{10}$

Carboxymethyl-3,4,6-tri-*O*-acetyl- β -D-galactopyranoside-2-*O*-lactone

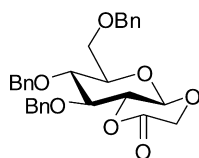
Ee = 100%

$[\alpha]_D = +85$ (*c* 1, $CHCl_3$)

Source of chirality: allyl- β -D-galactopyranoside

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert, Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



$C_{29}H_{30}O_7$

Carboxymethyl-3,4,6-tri-*O*-benzyl- β -D-glucopyranoside-2-*O*-lactone

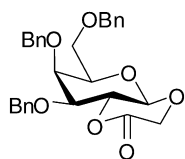
Ee = 100%

$[\alpha]_D = -21$ (*c* 1, $CHCl_3$)

Source of chirality: allyl- β -D-glucopyranoside

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert, Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



$C_{29}H_{30}O_7$

Carboxymethyl-3,4,6-tri-*O*-benzyl- β -D-galactopyranoside-2-*O*-lactone

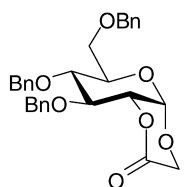
Ee = 100%

$[\alpha]_D = +51$ (*c* 0.2, CHCl₃)

Source of chirality: allyl- β -D-galactopyranoside

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert, Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



$C_{29}H_{30}O_7$

Carboxymethyl-3,4,6-tri-*O*-benzyl- α -D-glucopyranoside-2-*O*-lactone

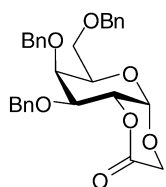
Ee = 100%

$[\alpha]_D = +88$ (*c* 0.8, CHCl₃)

Source of chirality: allyl- α -D-glucopyranoside

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert, Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



$C_{29}H_{30}O_7$

Carboxymethyl-3,4,6-tri-*O*-benzyl- α -D-galactopyranoside-2-*O*-lactone

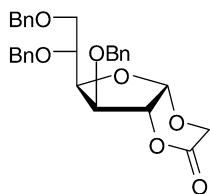
Ee = 100%

$[\alpha]_D = +71$ (*c* 0.8, CHCl₃)

Source of chirality: allyl- α -D-galactopyranoside

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert, Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



$C_{29}H_{30}O_7$

Carboxymethyl-3,5,6-tri-*O*-benzyl- α -D-glucofuranoside-2-*O*-lactone

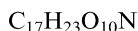
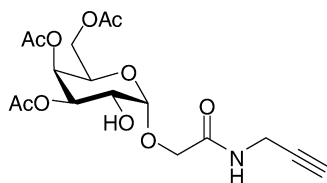
Ee = 100%

$[\alpha]_D = +19$ (*c* 0.7, CHCl₃)

Source of chirality: allyl- α -D-glucofuranoside

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert, Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



(*N*-Propargylcarbamoyl)methyl-3,4,6-tri-*O*-acetyl- α -D-galactopyranoside

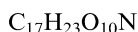
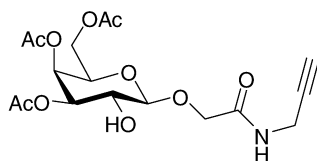
Ee = 100%

$[\alpha]_{\text{D}} = +122$ (*c* 0.6, CHCl_3)

Source of chirality: carboxymethyl-3,4,6-tri-*O*-acetyl- α -D-galactopyranoside-2-*O*-lactone

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert, Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



(*N*-Propargylcarbamoyl)methyl-3,4,6-tri-*O*-acetyl- β -D-galactopyranoside

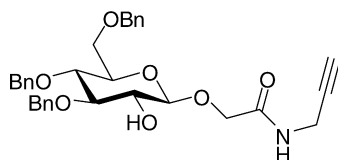
Ee = 100%

$[\alpha]_{\text{D}} = -2$ (*c* 0.6, CHCl_3)

Source of chirality: carboxymethyl-3,4,6-tri-*O*-acetyl- β -D-galactopyranoside-2-*O*-lactone

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert, Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



(*N*-Propargylcarbamoyl)methyl-3,4,6-tri-*O*-benzyl- β -D-glucopyranoside

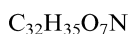
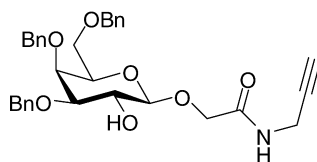
Ee = 100%

$[\alpha]_{\text{D}} = +5$ (*c* 0.3, CHCl_3)

Source of chirality: carboxymethyl-3,4,6-tri-*O*-benzyl- β -D-glucopyranoside-2-*O*-lactone

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert, Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



(*N*-Propargylcarbamoyl)methyl-3,4,6-tri-*O*-benzyl- β -D-galactopyranoside

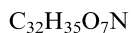
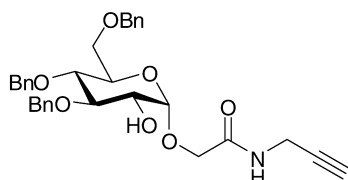
Ee = 100%

$[\alpha]_{\text{D}} = +3$ (*c* 1, CHCl_3)

Source of chirality: carboxymethyl-3,4,6-tri-*O*-benzyl- β -D-galactopyranoside-2-*O*-lactone

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert, Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



(*N*-Propargylcarbamoyl)methyl-3,4,6-tri-*O*-benzyl- α -D-glucopyranoside

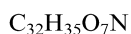
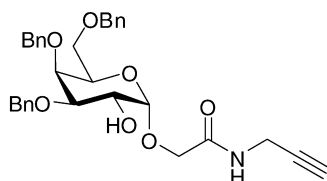
Ee = 100%

$[\alpha]_{\text{D}} = +88$ (*c* 0.5, CHCl_3)

Source of chirality: carboxymethyl-3,4,6-tri-*O*-benzyl- α -D-glucopyranoside-2-*O*-lactone

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert, Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



(*N*-Propargylcarbamoyl)methyl-3,4,6-tri-*O*-benzyl- α -D-galactopyranoside

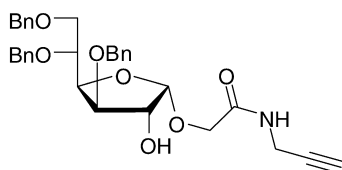
Ee = 100%

$[\alpha]_{\text{D}} = +84$ (*c* 0.6, CHCl_3)

Source of chirality: carboxymethyl-3,4,6-tri-*O*-benzyl- α -D-galactopyranoside-2-*O*-lactone

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert, Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



(*N*-Propargylcarbamoyl)methyl-3,4,6-tri-*O*-benzyl- α -D-glucofuranoside

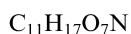
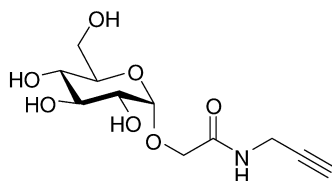
Ee = 100%

$[\alpha]_{\text{D}} = +10$ (*c* 0.9, CHCl_3)

Source of chirality: carboxymethyl-3,5,6-tri-*O*-benzyl- α -D-glucofuranoside-2-*O*-lactone

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert, Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



(*N*-Propargylcarbamoyl)methyl- α -D-glucopyranoside

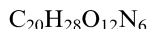
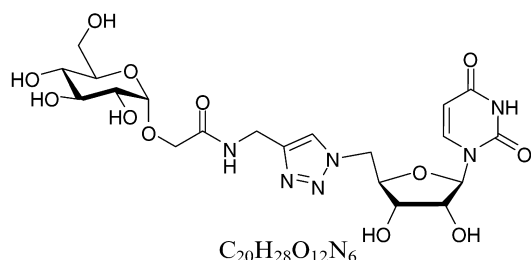
Ee = 100%

$[\alpha]_{\text{D}} = +188$ (*c* 1, H_2O)

Source of chirality: (*N*-propargylcarbamoyl)methyl-3,4,6-tri-*O*-acetyl- α -D-glucopyranoside

Arkadiusz Listkowski, Pisethnaline Ing, Rouba Cheaib,
Stéphane Chambert, Alain Doutheau and Yves Queneau*

Tetrahedron: Asymmetry 18 (2007) 2201



N-Methyl[4-[1-(5'-deoxyuridin)-1,2,3-triazole]]carbamoylmethyl- α -D-glucopyranoside

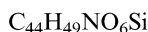
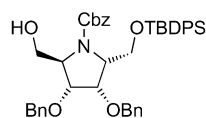
Ee = 100%

$[\alpha]_{\text{D}} = +89$ (*c* 1, H₂O)

Source of chirality: (*N*-propargylcarbamoyl)methyl- α -D-glucopyranoside

Isidoro Izquierdo,* María T. Plaza, Juan A. Tamayo and
Fernando Sánchez-Cantalejo

Tetrahedron: Asymmetry 18 (2007) 2211



(2*R*,3*S*,4*R*,5*R*)-3,4-Dibenzoyloxy-*N*-benzoyloxycarbonyl-2'-*O*-*tert*-butyldiphenylsilyl-2,5-bis(hydroxymethyl)pyrrolidine

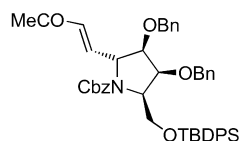
$[\alpha]_{\text{D}}^{25} = +6$, $[\alpha]_{405}^{26} = +21$ (*c* 1, chloroform)

Source of chirality: D-fructose and stereoselective synthesis

Absolute configuration: (2*R*,3*S*,4*R*,5*R*) (assigned by NMR spectroscopy and chemical correlation)

Isidoro Izquierdo,* María T. Plaza, Juan A. Tamayo and
Fernando Sánchez-Cantalejo

Tetrahedron: Asymmetry 18 (2007) 2211



4-[(3*E*,2'*R*,3'*R*,4'*S*,5'*R*)-3',4'-Dibenzoyloxy-*N*-benzoyloxycarbonyl-5'-*tert*-butyldiphenylsilyloxymethylpyrrolidin-2'-yl]but-3-en-2-one

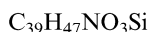
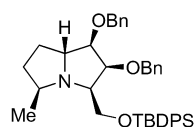
$[\alpha]_{\text{D}}^{26} = +18$ (*c* 1, chloroform)

Source of chirality: D-fructose and stereoselective synthesis

Absolute configuration: (3*E*,2'*R*,3'*R*,4'*S*,5'*R*) (assigned by NMR spectroscopy and chemical correlation)

Isidoro Izquierdo,* María T. Plaza, Juan A. Tamayo and
Fernando Sánchez-Cantalejo

Tetrahedron: Asymmetry 18 (2007) 2211



(1*R*,2*S*,3*R*,5*S*,7*aR*)-1,2-Dibenzoyloxy-3-*tert*-butyldiphenylsilyloxymethyl-5-methylpyrrolizidine

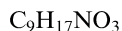
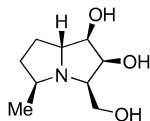
$[\alpha]_{\text{D}}^{25} = +31$ (*c* 1, chloroform)

Source of chirality: D-fructose and stereoselective synthesis

Absolute configuration: (1*R*,2*S*,3*R*,5*S*,7*aR*) (assigned by NMR spectroscopy and chemical correlation)

Isidoro Izquierdo,* María T. Plaza, Juan A. Tamayo and
Fernando Sánchez-Cantalejo

Tetrahedron: Asymmetry 18 (2007) 2211



(1*R*,2*S*,3*R*,5*S*,7*aR*)-1,2-Dihydroxy-3-hydroxymethyl-5-methylpyrrolizidine

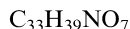
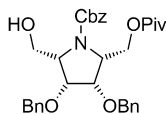
$[\alpha]_D^{28} = +12$, $[\alpha]_{405}^{28} = -30$ (*c* 1, methanol)

Source of chirality: D-fructose and stereoselective synthesis

Absolute configuration: (1*R*,2*S*,3*R*,5*S*,7*aR*) (assigned by NMR spectroscopy and chemical correlation)

Isidoro Izquierdo,* María T. Plaza, Juan A. Tamayo and
Fernando Sánchez-Cantalejo

Tetrahedron: Asymmetry 18 (2007) 2211



(2*R*,3*S*,4*R*,5*S*)-3,4-Dibenzyloxy-*N*-benzyloxycarbonyl-2,5-bis(hydroxymethyl)-2'-*O*-pivaloylpyrrolidine

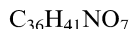
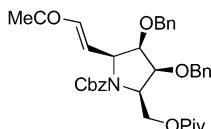
$[\alpha]_D^{23} = +22$ (*c* 1, chloroform)

Source of chirality: D-fructose and stereoselective synthesis

Absolute configuration: (2*R*,3*S*,4*R*,5*S*) (assigned by NMR spectroscopy and chemical correlation)

Isidoro Izquierdo,* María T. Plaza, Juan A. Tamayo and
Fernando Sánchez-Cantalejo

Tetrahedron: Asymmetry 18 (2007) 2211



4-[(3*E*,2'*S*,3'*R*,4'*S*,5'*R*)-3',4'-Dibenzyloxy-*N*-benzyloxycarbonyl-5'-*O*-pivaloyloxymethylpyrrolidin-2'-yl]but-3-en-2-one

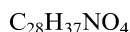
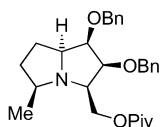
$[\alpha]_D^{26} = -1$, $[\alpha]_{405}^{26} = -116$ (*c* 1, chloroform)

Source of chirality: D-fructose and stereoselective synthesis

Absolute configuration: (3*E*,2'*S*,3'*R*,4'*S*,5'*R*) (assigned by NMR spectroscopy and chemical correlation)

Isidoro Izquierdo,* María T. Plaza, Juan A. Tamayo and
Fernando Sánchez-Cantalejo

Tetrahedron: Asymmetry 18 (2007) 2211



(1*R*,2*S*,3*R*,5*S*,7*aS*)-1,2-Dibenzyloxy-5-methyl-3-pivaloyloxymethylpyrrolizidine

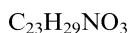
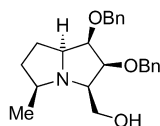
$[\alpha]_D^{25} = -27$ (*c* 1, chloroform)

Source of chirality: D-fructose and stereoselective synthesis

Absolute configuration: (1*R*,2*S*,3*R*,5*S*,7*aS*) (assigned by NMR spectroscopy and chemical correlation)

Isidoro Izquierdo,* María T. Plaza, Juan A. Tamayo and Fernando Sánchez-Cantalejo

Tetrahedron: Asymmetry 18 (2007) 2211



(1*R*,2*S*,3*R*,5*S*,7*aS*)-1,2-Dibenzyloxy-3-hydroxymethyl-5-methylpyrrolizidine

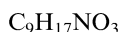
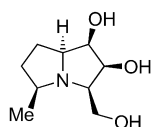
$$[\alpha]_{\text{D}}^{26} = -26 \text{ (} c \text{ 1, chloroform)}$$

Source of chirality: D-fructose and stereoselective synthesis

Absolute configuration: (1*R*,2*S*,3*R*,5*S*,7*aS*) (assigned by NMR spectroscopy and chemical correlation)

Isidoro Izquierdo,* María T. Plaza, Juan A. Tamayo and Fernando Sánchez-Cantalejo

Tetrahedron: Asymmetry 18 (2007) 2211



(1*R*,2*S*,3*R*,5*S*,7*aS*)-1,2-Dihydroxy-3-hydroxymethyl-5-methylpyrrolizidine

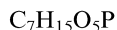
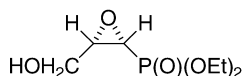
$$[\alpha]_{\text{D}}^{27} = +10 \text{ (} c \text{ 1, methanol)}$$

Source of chirality: D-fructose and stereoselective synthesis

Absolute configuration: (1*R*,2*S*,3*R*,5*S*,7*aS*) (assigned by NMR spectroscopy and chemical correlation)

Andrzej E. Wróblewski* and Irena I. Bąk-Sypień

Tetrahedron: Asymmetry 18 (2007) 2218



Diethyl (1*R*,2*S*)-1,2-epoxy-3-hydroxypropylphosphonate

$$\text{Ee} = 100\%$$

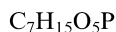
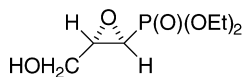
$$[\alpha]_{\text{D}}^{20} = +11.7 \text{ (} c \text{ 0.8, CHCl}_3)$$

Source of chirality: D-mannitol

Absolute configuration: (1*R*,2*S*)

Andrzej E. Wróblewski* and Irena I. Bąk-Sypień

Tetrahedron: Asymmetry 18 (2007) 2218



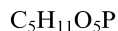
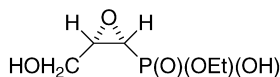
Diethyl (1*S*,2*S*)-1,2-epoxy-3-hydroxypropylphosphonate

$$\text{Ee} = 100\%$$

$$[\alpha]_{\text{D}}^{20} = -24.7 \text{ (} c \text{ 0.8, CHCl}_3)$$

Source of chirality: D-mannitol

Absolute configuration: (1*S*,2*S*)



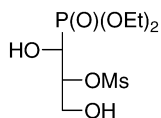
O-Ethyl (1*R*,2*S*)-1,2-epoxy-3-trityloxypropylphosphonate

Ee = 100%

$[\alpha]_{\text{D}}^{20} = +12.2$ (*c* 0.08, H₂O)

Source of chirality: D-mannitol

Absolute configuration: (1*R*,2*S*)



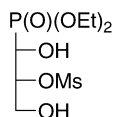
Diethyl (1*R*,2*R*)-1,3-dihydroxy-2-mesyloxypropylphosphonate

Ee = 100%

$[\alpha]_{\text{D}}^{20} = +4.7$ (*c* 0.97, CH₃OH)

Source of chirality: D-mannitol

Absolute configuration: (1*R*,2*R*)



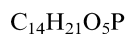
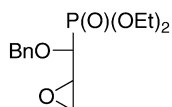
Diethyl (1*S*,2*R*)-1,3-dihydroxy-2-mesyloxypropylphosphonate

Ee = 100%

$[\alpha]_{\text{D}}^{20} = +10.9$ (*c* 1.0, CHCl₃)

Source of chirality: D-mannitol

Absolute configuration: (1*S*,2*R*)



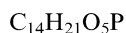
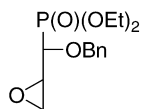
Diethyl (1*R*,2*S*)-2,3-epoxy-1-benzyloxypropylphosphonate

Ee = 100%

$[\alpha]_{\text{D}}^{20} = -19.7$ (*c* 1.0, CHCl₃)

Source of chirality: D-mannitol

Absolute configuration: (1*R*,2*S*)



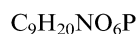
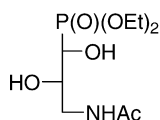
Diethyl (1*S*,2*S*)-2,3-epoxy-1-benzyloxypropylphosphonate

Ee = 100%

$[\alpha]_D^{20} = -20.6$ (c 4.0, $CHCl_3$)

Source of chirality: D-mannitol

Absolute configuration: (1*S*,2*S*)



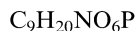
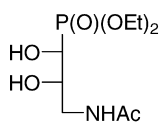
Diethyl (1*S*,2*S*)-3-acetamido-1,2-dihydroxypropylphosphonate

Ee = 100%

$[\alpha]_D^{20} = -16.4$ (c 1.45, $CHCl_3$)

Source of chirality: D-mannitol

Absolute configuration: (1*S*,2*S*)



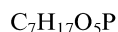
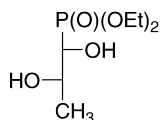
Diethyl (1*R*,2*S*)-3-acetamido-1,2-dihydroxypropylphosphonate

Ee = 100%

$[\alpha]_D^{20} = +72.2$ (c 1.1, $CHCl_3$)

Source of chirality: D-mannitol

Absolute configuration: (1*R*,2*S*)



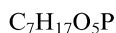
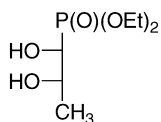
Diethyl (1*S*,2*S*)-1,2-dihydroxypropylphosphonate

Ee = 100%

$[\alpha]_D^{20} = +10.3$ (c 1.4, $CHCl_3$)

Source of chirality: D-mannitol

Absolute configuration: (1*S*,2*S*)



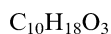
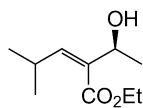
Diethyl (1*R*,2*S*)-1,2-dihydroxypropylphosphonate

Ee = 100%

$[\alpha]_D^{20} = -4.4$ (*c* 1.4, $CHCl_3$)

Source of chirality: D-mannitol

Absolute configuration: (1*R*,2*S*)



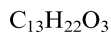
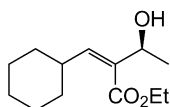
(3*S*)-Ethyl 3-hydroxy-2-(1'-isopropyl-methylidene)-butyrate

Ee >99%

$[\alpha]_D^{25} = -11.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: lipase catalyzed kinetic resolution

Absolute configuration: (*S*)



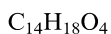
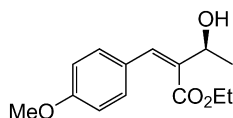
(3*S*)-Ethyl 3-hydroxy-2-(1'-cyclohexyl-methylidene)-butyrate

Ee = 88%

$[\alpha]_D^{25} = -8.7$ (*c* 1.0, $CHCl_3$)

Source of chirality: lipase catalyzed kinetic resolution

Absolute configuration: (*S*)



(3*S*)-Ethyl 3-hydroxy-2-[1'(4-methoxy-phenyl)-methylidene]-butyrate

Ee >99%

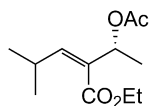
$[\alpha]_D^{25} = -4.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: lipase catalyzed kinetic resolution

Absolute configuration: (*S*)

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Alessandra Tolomelli

Tetrahedron: Asymmetry 18 (2007) 2227



$C_{12}H_{20}O_4$

(3*R*)-Ethyl 3-acetoxy-2-(1'-isopropyl-methylidene)-butyrate

Ee >99%

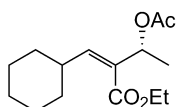
$[\alpha]_D^{25} = +36.5$ (*c* 1.0, CHCl₃)

Source of chirality: lipase catalyzed kinetic resolution

Absolute configuration: (*R*)

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Alessandra Tolomelli

Tetrahedron: Asymmetry 18 (2007) 2227



$C_{15}H_{24}O_4$

(3*R*)-Ethyl 3-acetoxy-2-(1'-cyclohexyl-methylidene)-butyrate

Ee >99%

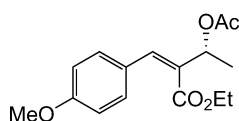
$[\alpha]_D^{25} = +27.2$ (*c* 1.0, CHCl₃)

Source of chirality: lipase catalyzed kinetic resolution

Absolute configuration: (*R*)

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Alessandra Tolomelli

Tetrahedron: Asymmetry 18 (2007) 2227



$C_{16}H_{20}O_5$

(3*R*)-Ethyl 3-acetoxy-2-[1'-(4-methoxy-phenyl)-methylidene]-butyrate

Ee >99%

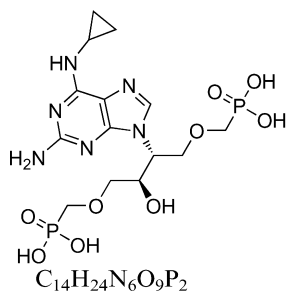
$[\alpha]_D^{25} = +44.3$ (*c* 1.0, CHCl₃)

Source of chirality: lipase catalyzed kinetic resolution

Absolute configuration: (*R*)

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Tetrahedron: Asymmetry xx (2007) 2233



$C_{14}H_{24}N_6O_9P_2$

(2*R*,3*R*)-2-Amino-6-(cyclopropyl)amino-9-{3-(hydroxy)-1,4-[bis(phosphono)methoxy]butan-2-yl}purine

Ee >99.8%

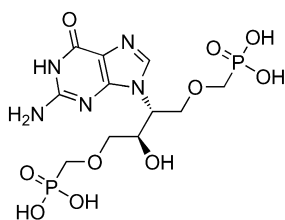
$[\alpha]_D^{20} = +12.9$ (*c* 0.25, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (2*R*,3*R*)

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Tetrahedron: Asymmetry xx (2007) 2233



(2*R*,3*R*)-9-{3-(Hydroxy)-1,4-[bis(phosphonomethoxy)]butan-2-yl} guanine

Ee >99.8%

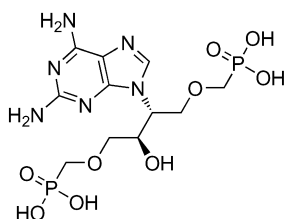
$[\alpha]_D^{20} = +10.9$ (*c* 0.23, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (2*R*,3*R*)

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Tetrahedron: Asymmetry xx (2007) 2233



(2*R*,3*R*)-2,6-Diamino-9-{3-(hydroxy)-1,4-[bis(phosphonomethoxy)]butan-2-yl} purine

Ee >99.8%

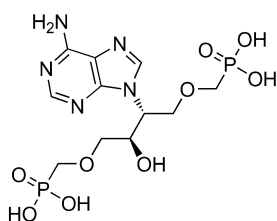
$[\alpha]_D^{20} = +19.2$ (*c* 0.34, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (2*R*,3*R*)

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Tetrahedron: Asymmetry xx (2007) 2233



(2*R*,3*R*)-9-{3-(Hydroxy)-1,4-[bis(phosphonomethoxy)]butan-2-yl} adenine

Ee >99.8%

$[\alpha]_D^{20} = +12.2$ (*c* 0.26, H₂O)

Source of chirality: asymmetric synthesis

Absolute configuration: (2*R*,3*R*)