

Roberta Settambolo, Giuditta Guazzelli, Lucia Mengali,
Alessandro Mandoli and Raffaello Lazzaroni*

Tetrahedron: Asymmetry 14 (2003) 2491



$C_8H_{11}N$

(3*R*)-(-)-3-(Pyrrol-1-yl)but-1-ene

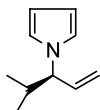
$[\alpha]_D^{26} = -62.5$ (*c* 0.52, MeOH)

Source of chirality: D-alanine, starting substrate

Absolute configuration: (3*R*)

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$C_{10}H_{15}N$

(3*R*)-(-)-4-Methyl-3-(pyrrol-1-yl)pent-1-ene

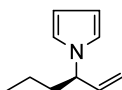
$[\alpha]_D^{26} = -88.9$ (*c* 1.5, MeOH)

Source of chirality: D-valine, starting substrate

Absolute configuration: (3*R*)

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$C_{10}H_{15}N$

(3*R*)-(-)-3-(Pyrrol-1-yl)hex-1-ene

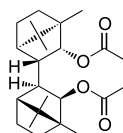
$[\alpha]_D^{26} = -58.5$ (*c* 1.1, MeOH)

Source of chirality: D-norvaline, starting substrate

Absolute configuration: (3*R*)

Naoki Kise,* Azumi Fujimoto, Noriaki Moriyama and Nasuo Ueda

Tetrahedron: Asymmetry 14 (2003) 2495



$C_{24}H_{38}O_4$

(1*R*,1'*R*,2*R*,2'*R*,3*S*,3'*S*,4*R*,4'*R*)-3,3'-bi(2-acetoxy-1,7,7-trimethylbicyclo[2.2.1]heptanone)

E.e. >99%

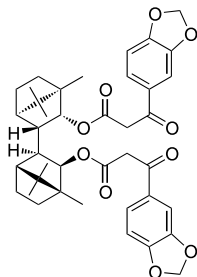
$[\alpha]_D^{20} = +94.1$ (*c* 1.07, $CHCl_3$)

Source of chirality: (1*R*)-camphor

Absolute configuration: 1*R*,1'*R*,2*R*,2'*R*,3*S*,3'*S*,4*R*,4'*R*

Naoki Kise,* Azumi Fujimoto, Noriaki Moriyama and Nasuo Ueda

Tetrahedron: Asymmetry 14 (2003) 2495



$C_{40}H_{46}O_{10}$

(1*R*,1'*R*,2*R*,2'*R*,3*S*,3'*S*,4*R*,4'*R*)-3,3'-Bi(2-(3-(2*H*-benzo[*d*]1,3-dioxolan-5-yl)-3-oxopropanoyloxy)-1,7,7-trimethylbicyclo[2.2.1]heptanone)

E.e. >99%

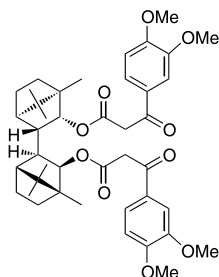
$[\alpha]_D^{25} = +25.5$ (c 1.21, $CHCl_3$)

Source of chirality: (1*R*)-camphor

Absolute configuration: 1*R*,1'*R*,2*R*,2'*R*,3*S*,3'*S*,4*R*,4'*R*

Naoki Kise,* Azumi Fujimoto, Noriaki Moriyama and Nasuo Ueda

Tetrahedron: Asymmetry 14 (2003) 2495



$C_{42}H_{54}O_{10}$

(1*R*,1'*R*,2*R*,2'*R*,3*S*,3'*S*,4*R*,4'*R*)-3,3'-Bi(2-(3-(3,4-dimethoxyphenyl)-3-oxopropanoyloxy)-1,7,7-trimethylbicyclo[2.2.1]heptanone)

E.e. >99%

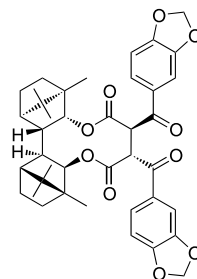
$[\alpha]_D^{25} = +28.0$ (c 1.33, $CHCl_3$)

Source of chirality: (1*R*)-camphor

Absolute configuration: 1*R*,1'*R*,2*R*,2'*R*,3*S*,3'*S*,4*R*,4'*R*

Naoki Kise,* Azumi Fujimoto, Noriaki Moriyama and Nasuo Ueda

Tetrahedron: Asymmetry 14 (2003) 2495



$C_{40}H_{44}O_{10}$

(2*S*,3*S*,1*R*,4*R*,7*R*,8*R*,11*R*,12*R*,15*R*,16*R*)-11,12-(bis-2*H*-benzo[*d*]1,3-dioxolen-5-ylcarbonyl)-7,16,19,19,20,20-hexamethyl-9,14-dioxapentacyclo[14.2.1.1<4,7>.0<2,15>.0<3,8>]icosane-10,13-dione

E.e. >99%

$[\alpha]_D^{25} = +25.5$ (c 1.21, $CHCl_3$)

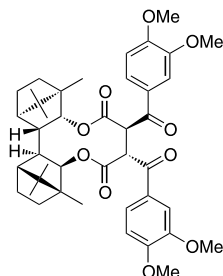
Source of chirality: (1*R*)-camphor

Absolute configuration:

1*R*,2*S*,3*S*,4*R*,7*R*,8*R*,11*R*,12*R*,15*R*,16*R*

Naoki Kise,* Azumi Fujimoto, Noriaki Moriyama and Nasuo Ueda

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$C_{42}H_{52}O_{10}$

(2*S*,3*S*,1*R*,4*R*,7*R*,8*R*,11*R*,12*R*,15*R*,16*R*)-11,12-Bis[(3,4-dimethoxyphenyl)carbonyl]-7,16,19,19,20,20-hexamethyl-9,14-dioxapentacyclo[14.2.1.1<4,7>.0<2,15>.0<3,8>]icosane-10,13-dione

E.e. >99%

$[\alpha]_D^{25} = +28.0$ (c 1.33, $CHCl_3$)

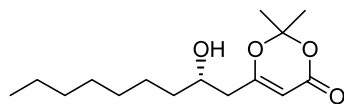
Source of chirality: (1*R*)-camphor

Absolute configuration:

1*R*,2*S*,3*S*,4*R*,7*R*,8*R*,11*R*,12*R*,15*R*,16*R*

Margherita De Rosa, Maria Rosaria Acocella, Rosaria Villano, Annunziata Soriente and Arrigo Scettri*

Tetrahedron: Asymmetry 14 (2003) 2499



$C_{15}H_{26}O_4$

6-(2-Hydroxy-nonyl)-2,2-dimethyl-[1,3]dioxin-4-one

E.e. = 85% (HPLC, Chiralpak AD)

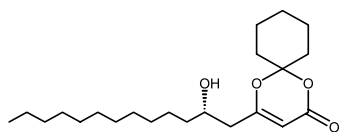
$[\alpha]_D^{25} = +13.5$ (c 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: 2S

Margherita De Rosa, Maria Rosaria Acocella, Rosaria Villano, Annunziata Soriente and Arrigo Scettri*

Tetrahedron: Asymmetry 14 (2003) 2499



$C_{22}H_{38}O_4$

4-((2S)-2-Hydroxy-tridecyl)-1,5-dioxaspiro[5,5]undec-3-en-2-one

E.e. >99% (HPLC, Chiralpak AD)

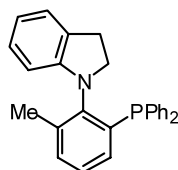
$[\alpha]_D^{25} = +14.2$ (c 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: 2S

Takashi Mino,* Youichi Tanaka, Toshihiro Yabusaki, Daisuke Okumura, Masami Sakamoto and Tsutomu Fujita

Tetrahedron: Asymmetry 14 (2003) 2503



$C_{27}H_{24}NP$

(-)-1-[2'-(Diphenylphosphino)-6'-methylphenyl]-2,3-dihydro-1H-indole

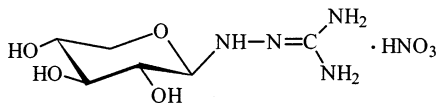
E.e. = 99% [by HPLC on Chiralcel OJ]

$[\alpha]_D^{25} = -19.2$ (c 0.27, $CHCl_3$)

Source of chirality: HPLC resolution

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Tetrahedron: Asymmetry 14 (2003) 2507



$C_6H_{15}N_5O_7$

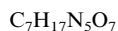
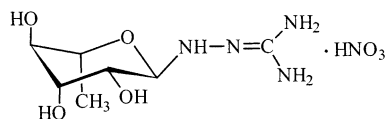
β -D-Xylopyranosyl aminoguanidine nitrate

$[\alpha]_D^{22} = -8.0$ (c 1.1, H_2O)

Source of chirality: D-xylose

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Tetrahedron: Asymmetry 14 (2003) 2507



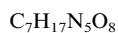
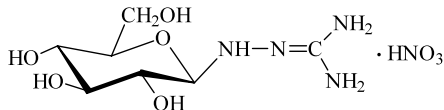
α -L-Rhamnopyranosyl aminoguanidine nitrate

$[\alpha]_D^{22} = +6.0$ (c 1.1, H_2O)

Source of chirality: L-rhamnose

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Tetrahedron: Asymmetry 14 (2003) 2507



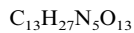
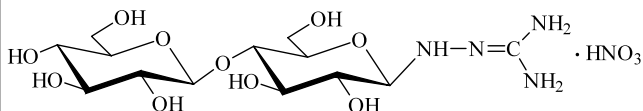
β -D-Glucopyranosyl aminoguanidine nitrate

$[\alpha]_D^{22} = -13.0$ (c 1.1, H_2O)

Source of chirality: D-glucose

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Tetrahedron: Asymmetry 14 (2003) 2507



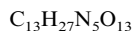
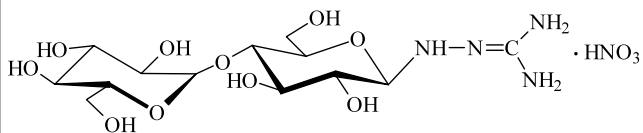
β -D-Cellobiosyl aminoguanidine nitrate

$[\alpha]_D^{22} = -24.0$ (c 1.1, H_2O)

Source of chirality: D-cellobiose

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Tetrahedron: Asymmetry 14 (2003) 2507



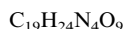
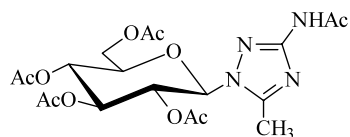
β -D-Lactosyl aminoguanidine nitrate

$[\alpha]_D^{22} = -19.0$ (c 1.1, H_2O)

Source of chirality: D-lactose

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Tetrahedron: Asymmetry 14 (2003) 2507



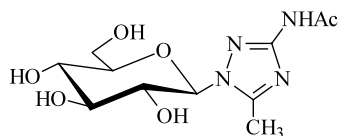
1-(2',3',4',6'-Tetra-*O*-acetyl- β -D-glucopyranosyl)-3-acetamido-5-methyl-1*H*-1,2,4-triazole

$[\alpha]_D^{22} = -13.0$ (*c* 1.0, CH_2Cl_2)

Source of chirality: D-glucose

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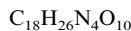
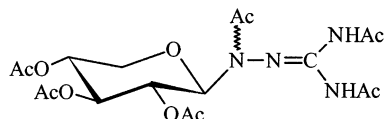
1-(β -D-Glucopyranosyl)-3-acetamido-5-methyl-1*H*-1,2,4-triazole

$[\alpha]_D^{22} = -10.0$ (*c* 1.0, H_2O)

Source of chirality: D-glucose

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Tetrahedron: Asymmetry 14 (2003) 2507



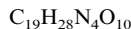
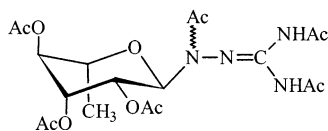
*N*¹-(2',3',4'-Tri-*O*-acetyl- β -D-xylopyranosylamino)-*N*¹,*N*²,*N*³-triacetylguanidine

$[\alpha]_D^{22} = -9.0$ (*c* 1.0, CH_2Cl_2)

Source of chirality: D-xylose

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Tetrahedron: Asymmetry 14 (2003) 2507



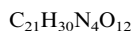
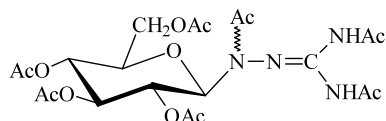
*N*¹-(2',3',4'-Tri-*O*-acetyl- α -L-rhamnopyranosylamino)-*N*¹,*N*²,*N*³-triacetylguanidine

$[\alpha]_D^{22} = +19.0$ (*c* 1.0, CH_2Cl_2)

Source of chirality: L-rhamnose

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Tetrahedron: Asymmetry 14 (2003) 2507



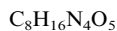
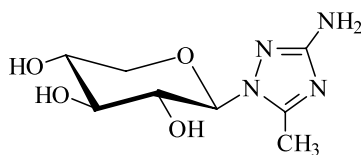
*N*¹-2',3',4',6'-Tetra-*O*-acetyl-β-D-glucopyranosylamino)-*N*¹,*N*²,*N*³-triacetylguanidine

$$[\alpha]_{\text{D}}^{22} = -2.0 \text{ (} c \text{ 1.0, CH}_2\text{Cl}_2 \text{)}$$

Source of chirality: D-glucose

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Tetrahedron: Asymmetry 14 (2003) 2507



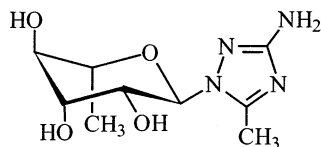
1-(β-D-Xylopyranosylamino)-5-methyl-1*H*-1,2,4-triazole

$$[\alpha]_{\text{D}}^{22} = -8.0 \text{ (} c \text{ 1.0, H}_2\text{O)}$$

Source of chirality: D-xylose

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Tetrahedron: Asymmetry 14 (2003) 2507



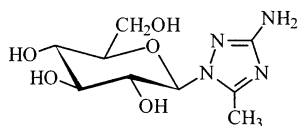
1-(α-L-Rhamnopyranosylamino)-5-methyl-1*H*-1,2,4-triazole

$$[\alpha]_{\text{D}}^{22} = -9.0 \text{ (} c \text{ 1.0, H}_2\text{O)}$$

Source of chirality: L-rhamnose

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Tetrahedron: Asymmetry 14 (2003) 2507



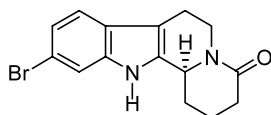
1-(β-D-Glucopyranosylamino)-5-methyl-1*H*-1,2,4-triazole

$$[\alpha]_{\text{D}}^{22} = -14.0 \text{ (} c \text{ 1.0, H}_2\text{O)}$$

Source of chirality: D-glucose

Leonardo Silva Santos, Sergio Antonio Fernandes,
Ronaldo Aloise Pilli* and Anita Jocelyne Marsaioli*

Tetrahedron: Asymmetry 14 (2003) 2515



(12bS)-10-Bromo-1,2,3,4,6,7,12,12b-octahydropyrido[2,1-a]β-carbolin-4-one

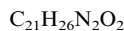
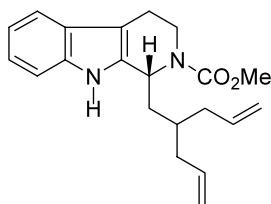
$[\alpha]_D^{25} = -0.72$ (c 0.9, $CHCl_3$)

Chiral induction: calix[6]arene/(R)-PEA

Absolute configuration: (S)

Leonardo Silva Santos, Sergio Antonio Fernandes,
Ronaldo Aloise Pilli* and Anita Jocelyne Marsaioli*

Tetrahedron: Asymmetry 14 (2003) 2515



Methyl (1R)-1-(2-allyl-4-pentenyl)-2,3,4,9-tetrahydro-1H-β-carboline-2-carboxylate

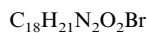
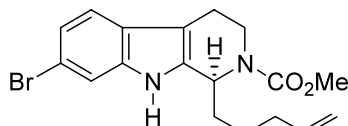
$[\alpha]_D^{25} = -0.23$ (c 0.5, $CHCl_3$)

Chiral induction: calix[6]arene/(R)-PEA

Absolute configuration: (R)

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Ronaldo Aloise Pilli* and Anita Jocelyne Marsaioli*

Tetrahedron: Asymmetry 14 (2003) 2515



Methyl (1S)-7-bromo-1-(3-butenyl)-2,3,4,9-tetrahydro-1H-β-carboline-2-carboxylate

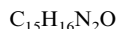
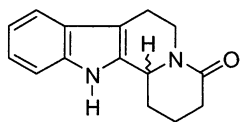
$[\alpha]_D^{25} = +23.5$ (c 0.6, $CHCl_3$)

Chiral induction: calix[6]arene/(R)-PEA

Absolute configuration: (S)

Leonardo Silva Santos, Sergio Antonio Fernandes,
Ronaldo Aloise Pilli* and Anita Jocelyne Marsaioli*

Tetrahedron: Asymmetry 14 (2003) 2515



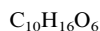
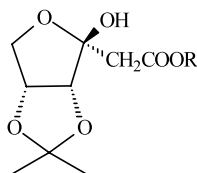
1,2,3,4,6,7,12,12b-Octahydropyrido[2,1-a]β-carbolin-4-one

$[\alpha]_D^{25} = -0.33$ (c 0.5, $CHCl_3$)

Chiral induction: calix[6]arene/(R)-PEA

Fulvia Orsini* and Emanuela Di Teodoro

Tetrahedron: Asymmetry 14 (2003) 2521



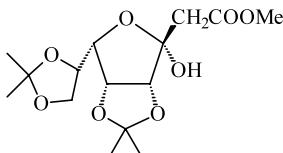
Methyl 2-deoxy-4,5-*O*-isopropylidene- β -D-erythro-3,6-furanos-3-hexulosonate

R = Me: $[\alpha]_D^{25} = -45.7$ (c 10.46 mg/mL, $CHCl_3$)

Source of chirality: 2,3-*O*-isopropylidene-D-erythrone-lactone

Fulvia Orsini* and Emanuela Di Teodoro

Tetrahedron: Asymmetry 14 (2003) 2521



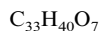
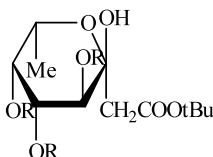
Methyl 2-deoxy-4,5:7,8-di-*O*-isopropylidene- α -D-gulo-3,6-furanos-3-octulosonate

$[\alpha]_D^{25} = -11.6$ (c 4.2 mg/mL, $CHCl_3$)

Source of chirality: 2,3:5,6-di-*O*-isopropylidene-D-gulonolactone

Fulvia Orsini* and Emanuela Di Teodoro

Tetrahedron: Asymmetry 14 (2003) 2521



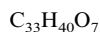
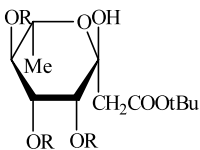
tert-Butyl 2-deoxy-4,5,6-tri-*O*-benzyl- α -L-fuco-3,7-pyranos-3-octulosonate

$[\alpha]_D^{25} = +4.53$ (c 10.5 mg/mL, $CHCl_3$)

Source of chirality: 2,3,5-tri-*O*-benzyl-L-fucono-1,5-lactone

Fulvia Orsini* and Emanuela Di Teodoro

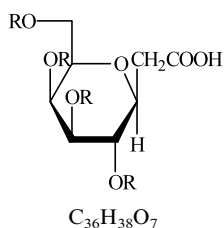
Tetrahedron: Asymmetry 14 (2003) 2521



tert-Butyl 2-deoxy-4,5,6-tri-*O*-benzyl- α -L-rhamno-3,7-pyranos-3-octulosonate

$[\alpha]_D^{25} = -5.7$ (c 12.75 mg/mL, $CHCl_3$)

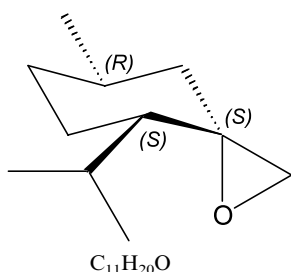
Source of chirality: tri-*O*-benzyl-L-rhamnono-1,5-lactone

2-(2,3,4,6-Tetra-*O*-benzyl- β -D-galactopyranosyl) acetic acid
 $[\alpha]_D^{25} = +20.5$ (*c* 11.3 mg/mL, $CHCl_3$)

 Source of chirality: tetra-*O*-benzyl-D-galactono-1,5-lactone

 Josep Duran, Daniel Oliver, Alfonso Polo,* Julio Real,
 Jordi Benet-Buchholz and Xavier Fontrodona

Tetrahedron: Asymmetry 14 (2003) 2529

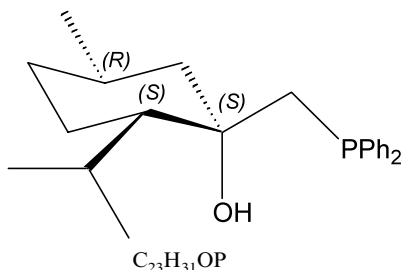
(1*S*,4*S*,7*R*)-4-Isopropyl-7-methyl-1-oxa-spiro[2.5]octane

E.e. 100%

 $[\alpha]_D^{20} = +7.7$ (*c* 0.015, CH_2Cl_2)

 Source of chirality: stereoselective epoxidation of
 commercial (–)-menthone
Absolute configuration: 1*S*,4*S*,7*R*
 Josep Duran, Daniel Oliver, Alfonso Polo,* Julio Real,
 Jordi Benet-Buchholz and Xavier Fontrodona

Tetrahedron: Asymmetry 14 (2003) 2529

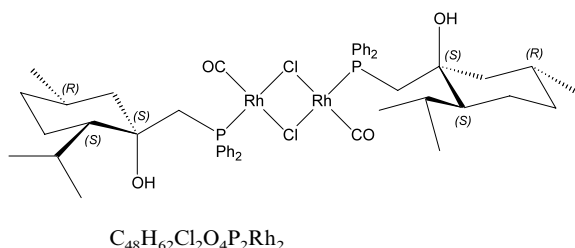
(1*S*,2*S*,5*R*)-1-Diphenylphosphinomethyl-2-isopropyl-5-methyl-cyclohexanol

E.e. = 100%

 $[\alpha]_D^{25} = -7.8$ (*c* 0.012, CH_2Cl_2)

 Source of chirality: regioselective ring opening of
 (1*S*,4*S*,7*R*)-4-isopropyl-7-methyl-1-oxa-spiro[2.5]octane
Absolute configuration: 1*S*,2*S*,5*R*
 Josep Duran, Daniel Oliver, Alfonso Polo,* Julio Real,
 Jordi Benet-Buchholz and Xavier Fontrodona

Tetrahedron: Asymmetry 14 (2003) 2529


trans-P,P-Bis- $\{[\mu\text{-chlorocarbonyl}][(1*S*,2*S*,5*R*)-1\text{-diphenylphosphinomethyl-2-isopropyl-5-methyl-cyclohexanol-}P]\text{rhodium(I)}\}$

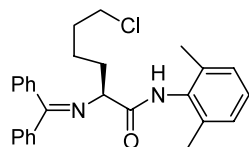
E.e. = 100%

 $[\alpha]_D^{25} = -50.9$ (*c* 0.011, CH_2Cl_2)

 Source of chirality: (1*S*,2*S*,5*R*)-1-diphenylphos-
 phinomethyl-2-isopropyl-5-methylcyclohexanol
Absolute configuration: 1*S*,2*S*,5*R*,1'*S*,2'*S*,5'*R*

Sanjeev Kumar and Uma Ramachandran*

Tetrahedron: Asymmetry 14 (2003) 2539



$C_{27}H_{29}ClN_2O$

6-Chloro-*N*¹-(2,6-dimethylphenyl)-*N*²-(diphenylmethylene)-L-norleucinamide

E.e. = 20% (by HPLC on Chiralcel OD-H column)

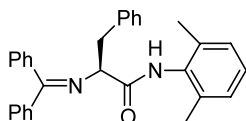
$[\alpha]_D^{25} = -5.8$ (c 0.5, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Sanjeev Kumar and Uma Ramachandran*

Tetrahedron: Asymmetry 14 (2003) 2539



$C_{30}H_{28}N_2O$

N-(2,6-Dimethylphenyl)-*N*-(diphenylmethylene)-L-phenylalaninamide

E.e. = 16% (by HPLC on Chiralcel OD-H column)

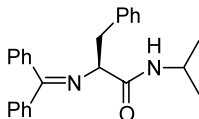
$[\alpha]_D^{25} = -4.3$ (c 1, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Sanjeev Kumar and Uma Ramachandran*

Tetrahedron: Asymmetry 14 (2003) 2539



$C_{25}H_{26}N_2O$

N-Isopropyl-*N*-(diphenylmethylene)-L-phenylalaninamide

E.e. = 42% (by HPLC on Chiralcel OD-H column)

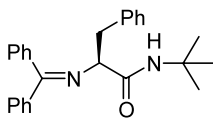
$[\alpha]_D^{25} = -41.4$ (c 1, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Sanjeev Kumar and Uma Ramachandran*

Tetrahedron: Asymmetry 14 (2003) 2539



$C_{26}H_{28}N_2O$

N-(*tert*-Butyl)-*N*-(diphenylmethylene)-L-phenylalaninamide

E.e. = 53% (by HPLC on Chiralcel OD-H column)

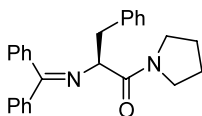
$[\alpha]_D^{25} = -7.8$ (c 1, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Sanjeev Kumar and Uma Ramachandran*

Tetrahedron: Asymmetry 14 (2003) 2539



$C_{26}H_{26}N_2O$

(2*S*)-*N*-(Diphenylmethylene)-1-oxo-3-phenyl-1-pyrrolidin-1-ylpropan-2-amine

E.e. = 67% (by HPLC on Chiralcel OD-H column)

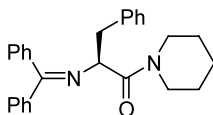
$[\alpha]_D^{25} = -55.9$ (*c* 1, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Sanjeev Kumar and Uma Ramachandran*

Tetrahedron: Asymmetry 14 (2003) 2539



$C_{27}H_{28}N_2O$

(2*S*)-*N*-(Diphenylmethylene)-1-oxo-3-phenyl-1-piperidin-1-ylpropan-2-amine

E.e. = 66% (by HPLC on Chiralcel OD-H column)

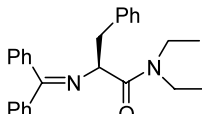
$[\alpha]_D^{25} = -48.7$ (*c* 1, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Sanjeev Kumar and Uma Ramachandran*

Tetrahedron: Asymmetry 14 (2003) 2539



$C_{26}H_{28}N_2O$

N,N-Diethyl-*N*-(diphenylmethylene)-*L*-phenylalaninamide

E.e. = 80% (by HPLC on Chiralcel OD-H column)

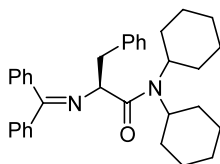
$[\alpha]_D^{25} = -51.8$ (*c* 1, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Sanjeev Kumar and Uma Ramachandran*

Tetrahedron: Asymmetry 14 (2003) 2539



$C_{34}H_{40}N_2O$

N,N-Dicyclohexyl-*N*-(diphenylmethylene)-*L*-phenylalaninamide

E.e. = 75% (by HPLC on Chiralcel OD-H column)

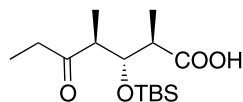
$[\alpha]_D^{25} = -25.2$ (*c* 0.5, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Robert Chênevert,* Gabriel Courchesne and Dave Caron

Tetrahedron: Asymmetry 14 (2003) 2567



C₁₅H₃₀O₄Si

(2*R*,3*R*,4*S*)-3-(*tert*-Butyldimethylsiloxy)-2,4-dimethyl-5-oxoheptanoic acid

Ee=97%

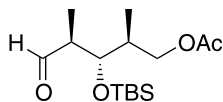
[α]_D²²=+20.4 (c 2.45, CHCl₃)

Source of chirality: enzymatic desymmetrization

Absolute configuration: 2*R*,3*R*,4*S*

Robert Chênevert,* Gabriel Courchesne and Dave Caron

Tetrahedron: Asymmetry 14 (2003) 2567



C₁₅H₃₀O₄Si

(2*S*,3*S*,4*S*)-5-Acetoxy-3-(*tert*-butyldimethylsiloxy)-2,4-dimethyl-1-pentanal

Ee=97%

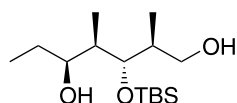
[α]_D²²=+17.5 (c 1.85, CHCl₃)

Source of chirality: enzymatic desymmetrization

Absolute configuration: 2*S*,3*S*,4*S*

Robert Chênevert,* Gabriel Courchesne and Dave Caron

Tetrahedron: Asymmetry 14 (2003) 2567



C₁₅H₃₄O₃Si

(2*S*,3*S*,4*R*,5*S*)-3-(*tert*-Butyldimethylsiloxy)-2,4-dimethyl-1,5-heptanediol

Ee=97%

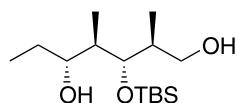
[α]_D²²=-7.4 (c 2.19, C₆H₆)

Source of chirality: enzymatic desymmetrization

Absolute configuration: 2*S*,3*S*,4*R*,5*S*

Robert Chênevert,* Gabriel Courchesne and Dave Caron

Tetrahedron: Asymmetry 14 (2003) 2567



C₁₅H₃₄O₃Si

(2*S*,3*S*,4*R*,5*R*)-3-(*tert*-Butyldimethylsiloxy)-2,4-dimethyl-1,5-heptanediol

Ee=97%

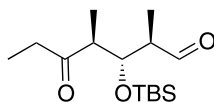
[α]_D²²=-2.5 (c 1.90, C₆H₆)

Source of chirality: enzymatic desymmetrization

Absolute configuration: 2*S*,3*S*,4*R*,5*R*

Robert Chênevert,* Gabriel Courchesne and Dave Caron

Tetrahedron: Asymmetry 14 (2003) 2567



$C_{15}H_{30}O_3Si$

(2*R*,3*S*,4*S*)-3-(*tert*-Butyldimethylsiloxy)-2,4-dimethyl-5-oxoheptanal

Ee = 97%

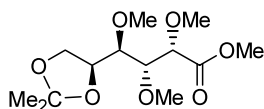
$[\alpha]_D^{25} = -5.9$ (*c* 2.47, C_6H_6)

Source of chirality: enzymatic desymmetrization

Absolute configuration: 2*R*,3*S*,4*S*

Carmen L. Romero Zaliz and Oscar Varela*

Tetrahedron: Asymmetry 14 (2003) 2579



$C_{13}H_{24}O_7$

Methyl 5,6-*O*-isopropylidene-2,3,4-tri-*O*-methyl-L-galactonate

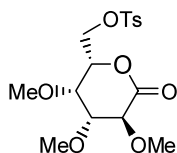
Ee = 100%

$[\alpha]_D = +10.2$ (*c* 1.0, $CHCl_3$)

Source of chirality: L-galactono-1,4-lactone

Carmen L. Romero Zaliz and Oscar Varela*

Tetrahedron: Asymmetry 14 (2003) 2579



$C_{16}H_{22}O_8S$

2,3,4-Tri-*O*-methyl-6-*O*-tosyl-L-galactono-1,5-lactone

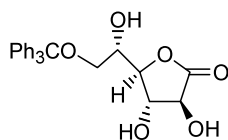
Ee = 100%

$[\alpha]_D = -32.7$ (*c* 0.8, $CHCl_3$)

Source of chirality: L-galactono-1,4-lactone

Carmen L. Romero Zaliz and Oscar Varela*

Tetrahedron: Asymmetry 14 (2003) 2579



$C_{25}H_{24}O_6$

6-*O*-Trityl-L-galactono-1,4-lactone

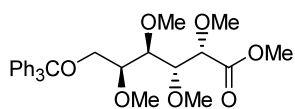
Ee = 100%

$[\alpha]_D = -22.4$ (*c* 1.2, $CHCl_3$)

Source of chirality: L-galactono-1,4-lactone

Carmen L. Romero Zaliz and Oscar Varela*

Tetrahedron: Asymmetry 14 (2003) 2579



$C_{30}H_{36}O_7$

Methyl 2,3,4,5-tetra-*O*-methyl-6-*O*-trityl-L-galactonate

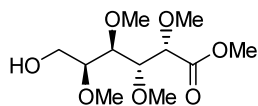
Ee = 100%

$[\alpha]_D = -5.1$ (c 1.0, $CHCl_3$)

Source of chirality: L-galactono-1,4-lactone

Carmen L. Romero Zaliz and Oscar Varela*

Tetrahedron: Asymmetry 14 (2003) 2579



$C_{11}H_{22}O_7$

Methyl 2,3,4,5-tetra-*O*-methyl-L-galactonate

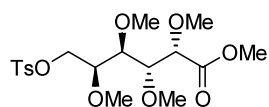
Ee = 100%

$[\alpha]_D = -10.5$ (c 0.9, $CHCl_3$)

Source of chirality: L-galactono-1,4-lactone

Carmen L. Romero Zaliz and Oscar Varela*

Tetrahedron: Asymmetry 14 (2003) 2579



$C_{18}H_{28}O_9S$

Methyl 2,3,4,5-tetra-*O*-methyl-6-*O*-tosyl-L-galactonate

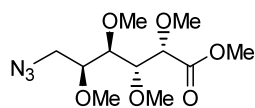
Ee = 100%

$[\alpha]_D = -14.3$ (c 0.8, $CHCl_3$)

Source of chirality: L-galactono-1,4-lactone

Carmen L. Romero Zaliz and Oscar Varela*

Tetrahedron: Asymmetry 14 (2003) 2579



$C_{11}H_{21}O_6N_3$

Methyl 6-azido-6-deoxy-2,3,4,5-tetra-*O*-methyl-L-galactonate

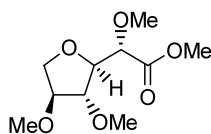
Ee = 100%

$[\alpha]_D = +4.3$ (c 1.4, $CHCl_3$)

Source of chirality: L-galactono-1,4-lactone

Carmen L. Romero Zaliz and Oscar Varela*

Tetrahedron: Asymmetry 14 (2003) 2579



$C_{10}H_{18}O_6$

Methyl 3,6-anhydro-2,4,5-tri-*O*-methyl-L-galactonate

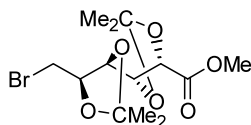
Ee = 100%

$[\alpha]_D = -50.8$ (*c* 0.7, $CHCl_3$)

Source of chirality: L-galactono-1,4-lactone

Carmen L. Romero Zaliz and Oscar Varela*

Tetrahedron: Asymmetry 14 (2003) 2579



$C_{13}H_{21}O_6Br$

Methyl 6-bromo-6-deoxy-2,3:4,5-di-*O*-isopropylidene-L-galactonate

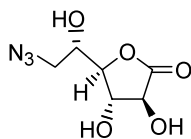
Ee = 100%

$[\alpha]_D = +7.6$ (*c* 1.0, $CHCl_3$)

Source of chirality: L-galactono-1,4-lactone

Carmen L. Romero Zaliz and Oscar Varela*

Tetrahedron: Asymmetry 14 (2003) 2579



$C_6H_9O_5N_3$

6-Azido-6-deoxy-L-galactono-1,4-lactone

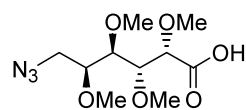
Ee = 100%

$[\alpha]_D = +65.1$ (*c* 0.8, EtOAc)

Source of chirality: L-galactono-1,4-lactone

Carmen L. Romero Zaliz and Oscar Varela*

Tetrahedron: Asymmetry 14 (2003) 2579



$C_{10}H_{19}O_6N_3$

6-Azido-6-deoxy-2,3,4,5-tetra-*O*-methyl-L-galactonic acid

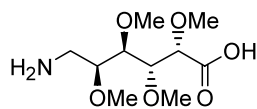
Ee = 100%

$[\alpha]_D = +7.6$ (*c* 0.7, MeOH)

Source of chirality: L-galactono-1,4-lactone

Carmen L. Romero Zaliz and Oscar Varela*

Tetrahedron: Asymmetry 14 (2003) 2579



$C_{10}H_{21}O_6N$

6-Amino-6-deoxy-2,3,4,5-tetra-*O*-methyl-L-galactonic acid

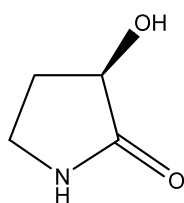
Ee = 100%

$[\alpha]_D^{25} = -20.6$ (*c* 0.8, H₂O)

Source of chirality: L-galactono-1,4-lactone

Ahmed Kamal,* K. Venkata Ramana, A. Venkata Ramana and A. Hari Babu

Tetrahedron: Asymmetry 14 (2003) 2587



$C_4H_7NO_2$

(*R*)-3-Hydroxy-2-Pyrrolidinone

E.e. >99% [by chiral HPLC]

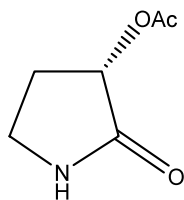
$[\alpha]_D^{25} = +120.0$ (*c* 1 CHCl₃)

Source of chirality: enzymatic acetylation

Absolute configuration: *R*

Ahmed Kamal,* K. Venkata Ramana, A. Venkata Ramana and A. Hari Babu

Tetrahedron: Asymmetry 14 (2003) 2587



$C_6H_9NO_3$

(*S*)-3-Acetoxy-2-pyrrolidinone

E.e. >99% [by chiral HPLC]

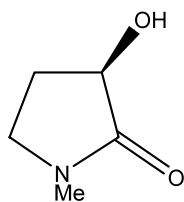
$[\alpha]_D^{25} = -30.4$ (*c* 1 CHCl₃)

Source of chirality: enzymatic acetylation

Absolute configuration: *S*

Ahmed Kamal,* K. Venkata Ramana, A. Venkata Ramana and A. Hari Babu

Tetrahedron: Asymmetry 14 (2003) 2587



$C_5H_9NO_2$

(*R*)-3-Hydroxy-1-methyl-2-pyrrolidinone

E.e. = 98% [by chiral HPLC]

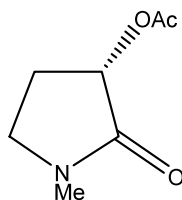
$[\alpha]_D^{25} = +126.5$ (*c* 1 CHCl₃)

Source of chirality: enzymatic acetylation

Absolute configuration: *R*

Ahmed Kamal,* K. Venkata Ramana, A. Venkata Ramana and A. Hari Babu

Tetrahedron: Asymmetry 14 (2003) 2587



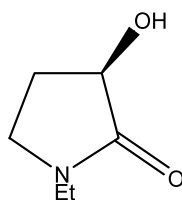
$C_7H_{11}NO_3$

(*S*)-3-Acetoxy-1-methyl-2-pyrrolidinone

E.e. = 95% [by chiral HPLC]
 $[\alpha]_D^{25} = -31.0$ (*c* 1 $CHCl_3$)
Source of chirality: enzymatic acetylation
Absolute configuration: *S*

Ahmed Kamal,* K. Venkata Ramana, A. Venkata Ramana and A. Hari Babu

Tetrahedron: Asymmetry 14 (2003) 2587



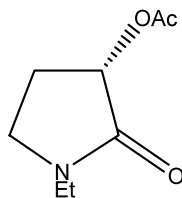
$C_6H_{11}NO_2$

(*R*)-3-Hydroxy-1-ethyl-2-Pyrrolidinone

E.e. = 97% [by chiral HPLC]
 $[\alpha]_D^{25} = +131.0$ (*c* 1 $CHCl_3$)
Source of chirality: enzymatic acetylation
Absolute configuration: *R*

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Tetrahedron: Asymmetry 14 (2003) 2587



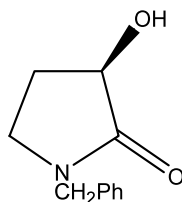
$C_8H_{13}NO_3$

(*S*)-3-Acetoxy-1-ethyl-2-pyrrolidinone

E.e. >99% [by chiral HPLC]
 $[\alpha]_D^{25} = -25.2$ (*c* 1 $CHCl_3$)
Source of chirality: enzymatic acetylation
Absolute configuration: *S*

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Tetrahedron: Asymmetry 14 (2003) 2587



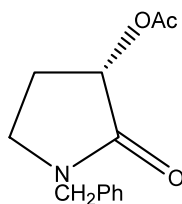
$C_{11}H_{13}NO_2$

(*R*)-3-Hydroxy-1-benzyl-2-pyrrolidinone

$[\alpha]_D^{25} = +32.5$ (*c* 1 $CHCl_3$)
Source of chirality: enzymatic acetylation
Absolute configuration: *R*

Ahmed Kamal,* K. Venkata Ramana, A. Venkata Ramana and A. Hari Babu

Tetrahedron: Asymmetry 14 (2003) 2587



$C_{13}H_{15}NO_3$

(*S*)-3-Acetoxy-1-benzyl-2-pyrrolidinone

E.e. = 45% [by chiral HPLC]

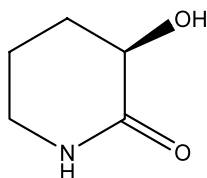
$[\alpha]_D^{25} = -51.2$ (c 1 $CHCl_3$)

Source of chirality: enzymatic acetylation

Absolute configuration: *S*

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Tetrahedron: Asymmetry 14 (2003) 2587



$C_5H_9NO_2$

(*R*)-3-Hydroxy-2-piperidinone

E.e. >99% [by chiral HPLC]

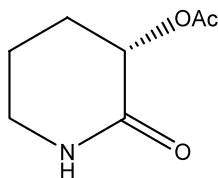
$[\alpha]_D^{25} = +6.0$ (c 1 $CHCl_3$)

Source of chirality: enzymatic acetylation

Absolute configuration: *R*

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Tetrahedron: Asymmetry 14 (2003) 2587



$C_7H_{11}NO_3$

(*S*)-3-Acetoxy-2-piperidinone

E.e. = 90% [by chiral HPLC]

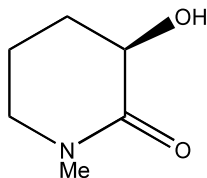
$[\alpha]_D^{25} = -1.5$ (c 1 $CHCl_3$)

Source of chirality: enzymatic acetylation

Absolute configuration: *S*

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Tetrahedron: Asymmetry 14 (2003) 2587



$C_6H_{11}NO_2$

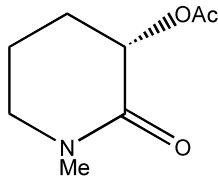
(*R*)-3-Hydroxy-1-methyl-2-piperidinone

Source of chirality: enzymatic acetylation

Absolute configuration: *R*

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Tetrahedron: Asymmetry 14 (2003) 2587



$C_8H_{13}NO_3$

(*S*)-3-Acetoxy-1-methyl-2-piperidinone

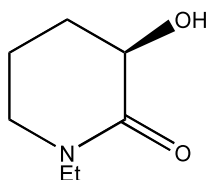
E.e. = 98% [by chiral HPLC]

Source of chirality: enzymatic acetylation

Absolute configuration: *S*

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Tetrahedron: Asymmetry 14 (2003) 2587



$C_7H_{13}NO_2$

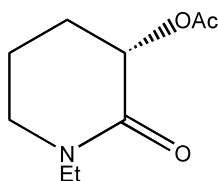
(*R*)-3-Hydroxy-1-ethyl-2-piperidinone

Source of chirality: enzymatic acetylation

Absolute configuration: *R*

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Tetrahedron: Asymmetry 14 (2003) 2587



$C_9H_{15}NO_3$

(*S*)-3-Acetoxy-1-ethyl-2-piperidinone

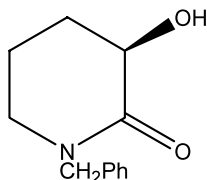
E.e. = 96% [by chiral HPLC]

Source of chirality: enzymatic acetylation

Absolute configuration: *S*

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Tetrahedron: Asymmetry 14 (2003) 2587



$C_{12}H_{15}NO_2$

(*R*)-3-Hydroxy-1-benzyl-2-piperidinone

E.e. >99% [by chiral HPLC]

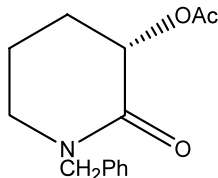
$[\alpha]_D^{25} = +12.0$ (*c* 1 $CHCl_3$)

Source of chirality: enzymatic acetylation

Absolute configuration: *R*

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A. Hari Babu

Tetrahedron: Asymmetry 14 (2003) 2587



$C_{14}H_{17}NO_3$

(*S*)-3-Acetoxy-1-benzyl-2-piperidinone

E.e. >99% [by chiral HPLC]

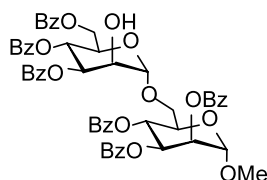
$[\alpha]_D^{25} = -10.0$ (c 1 $CHCl_3$)

Source of chirality: enzymatic acetylation

Absolute configuration: *S*

Zuchao Ma, Jianjun Zhang and Fanzuo Kong*

Tetrahedron: Asymmetry 14 (2003) 2595



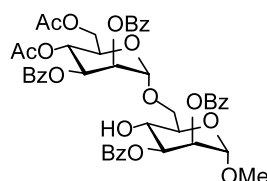
$C_{55}H_{48}O_{17}$

Methyl 3,4,6-tri-*O*-benzoyl- α -D-mannopyranosyl-(1→6)-2,3,4-tri-*O*-benzoyl- α -D-mannopyranoside

$[\alpha]_D^{25} = -37.6$ (c 1.0, $CHCl_3$)

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Tetrahedron: Asymmetry 14 (2003) 2595



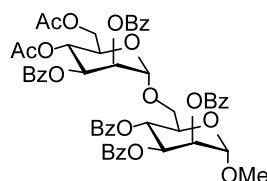
$C_{45}H_{44}O_{17}$

Methyl 4,6-di-*O*-acetyl-2,3-di-*O*-benzoyl- α -D-mannopyranosyl-(1→6)-2,3-di-*O*-benzoyl- α -D-mannopyranoside

$[\alpha]_D^{25} = -28.5$ (c 1.0, $CHCl_3$)

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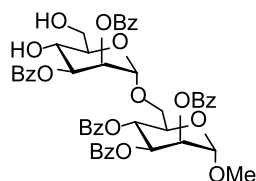
Tetrahedron: Asymmetry 14 (2003) 2595



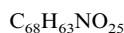
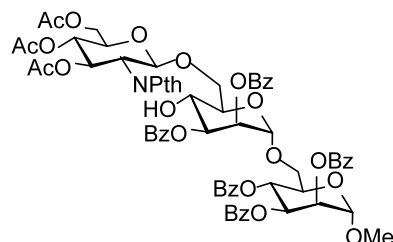
$C_{52}H_{48}O_{18}$

Methyl 4,6-di-*O*-acetyl-2,3-di-*O*-benzoyl- α -D-mannopyranosyl-(1→6)-2,3,4-tri-*O*-benzoyl- α -D-mannopyranoside

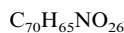
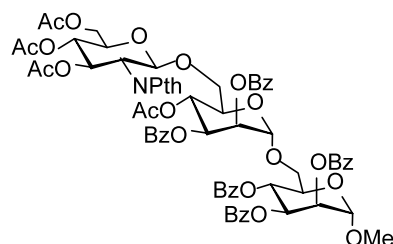
$[\alpha]_D^{25} = -98.7$ (c 1.0, $CHCl_3$)

Methyl 2,3-di-*O*-benzoyl- α -D-mannopyranosyl-(1 $\rightarrow$ 6)-2,3,4-tri-*O*-benzoyl- α -D-mannopyranoside

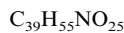
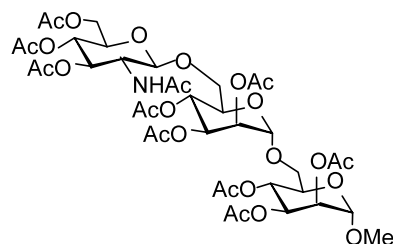
$$[\alpha]_{\text{D}}^{25} = -80.7 \text{ (c 1.0, CHCl}_3\text{)}$$

Methyl 3,4,6-tri-*O*-acetyl-2-deoxy-2-phthalimido- β -D-glucopyranosyl-(1 $\rightarrow$ 6)-2,3-di-*O*-benzoyl- α -D-mannopyranosyl-(1 $\rightarrow$ 6)-2,3,4-tri-*O*-benzoyl- α -D-mannopyranoside

$$[\alpha]_{\text{D}}^{25} = -51.5 \text{ (c 1.0, CHCl}_3\text{)}$$

Methyl 3,4,6-tri-*O*-acetyl-2-deoxy-2-phthalimido- β -D-glucopyranosyl-(1 $\rightarrow$ 6)-4-*O*-acetyl-2,3-di-*O*-benzoyl- α -D-mannopyranosyl-(1 $\rightarrow$ 6)-2,3,4-tri-*O*-benzoyl- α -D-mannopyranoside

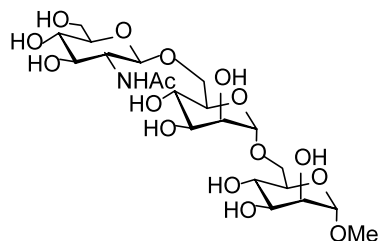
$$[\alpha]_{\text{D}}^{25} = -62.7 \text{ (c 1.0, CHCl}_3\text{)}$$

Methyl 2-acetamido-3,4,6-tri-*O*-acetyl-2-deoxy- β -D-glucopyranosyl-(1 $\rightarrow$ 6)-2,3,4-tri-*O*-acetyl- α -D-mannopyranosyl-(1 $\rightarrow$ 6)-2,3,4-tri-*O*-acetyl- α -D-mannopyranoside

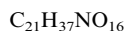
$$[\alpha]_{\text{D}}^{25} = +43.6 \text{ (c 1.0, CHCl}_3\text{)}$$

Zuchao Ma, Jianjun Zhang and Fanzuo Kong*

Tetrahedron: Asymmetry 14 (2003) 2595



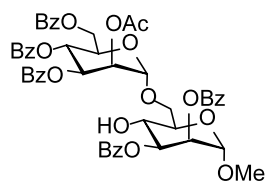
$$[\alpha]_D^{25} = +36.2 \text{ (c 1.3, H}_2\text{O)}$$



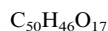
Methyl 2-acetamido-2-deoxy- β -D-glucopyranosyl-(1 $\rightarrow$ 6)- α -D-mannopyranosyl-(1 $\rightarrow$ 6)- α -D-mannopyranoside

Zuchao Ma, Jianjun Zhang and Fanzuo Kong*

Tetrahedron: Asymmetry 14 (2003) 2595



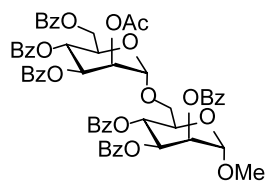
$$[\alpha]_D^{25} = +7.0 \text{ (c 1.0, CHCl}_3\text{)}$$



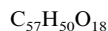
Methyl 2-O-acetyl-3,4,6-tri-O-benzoyl- α -D-mannopyranosyl-(1 $\rightarrow$ 6)-2,3-di-O-benzoyl- α -D-mannopyranoside

Zuchao Ma, Jianjun Zhang and Fanzuo Kong*

Tetrahedron: Asymmetry 14 (2003) 2595



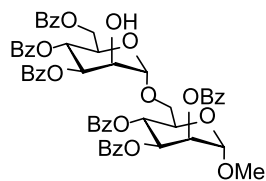
$$[\alpha]_D^{25} = -27.7 \text{ (c 1.0, CHCl}_3\text{)}$$



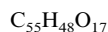
Methyl 2-O-acetyl-3,4,6-tri-O-benzoyl- α -D-mannopyranosyl-(1 $\rightarrow$ 6)-2,3,4-tri-O-benzoyl- α -D-mannopyranoside

Zuchao Ma, Jianjun Zhang and Fanzuo Kong*

Tetrahedron: Asymmetry 14 (2003) 2595



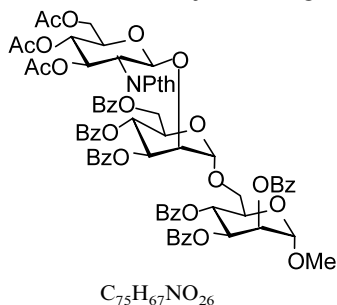
$$[\alpha]_D^{25} = -37.6 \text{ (c 1.0, CHCl}_3\text{)}$$



Methyl 3,4,6-tri-O-benzoyl- α -D-mannopyranosyl-(1 $\rightarrow$ 6)-2,3,4-tri-O-benzoyl- α -D-mannopyranoside

Zuchao Ma, Jianjun Zhang and Fanzuo Kong*

Tetrahedron: Asymmetry 14 (2003) 2595

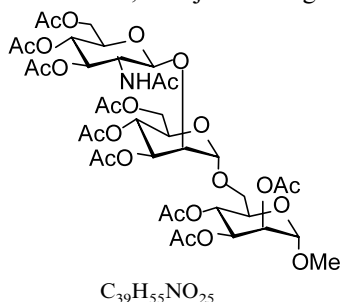


$$[\alpha]_D^{25} = -42.2 \text{ (c 0.5, CHCl}_3\text{)}$$

Methyl 3,4,6-tri-*O*-acetyl-2-deoxy-2-phthalimido- β -D-glucopyranosyl-(1 $\rightarrow$ 2)-3,4,6-tri-*O*-benzoyl- α -D-mannopyranosyl-(1 $\rightarrow$ 6)-2,3,4-tri-*O*-benzoyl- α -D-mannopyranoside

Zuchao Ma, Jianjun Zhang and Fanzuo Kong*

Tetrahedron: Asymmetry 14 (2003) 2595

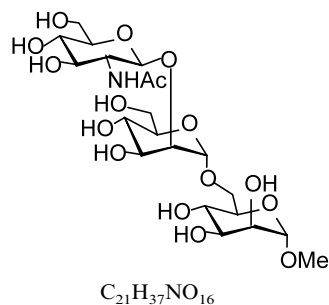


$$[\alpha]_D^{25} = +25.7 \text{ (c 1.0, CHCl}_3\text{)}$$

Methyl 2-acetamido-3,4,6-tri-*O*-acetyl-2-deoxy- β -D-glucopyranosyl-(1 $\rightarrow$ 2)-3,4,6-tri-*O*-acetyl- α -D-mannopyranosyl-(1 $\rightarrow$ 6)-2,3,4-tri-*O*-acetyl- α -D-mannopyranoside

Zuchao Ma, Jianjun Zhang and Fanzuo Kong*

Tetrahedron: Asymmetry 14 (2003) 2595

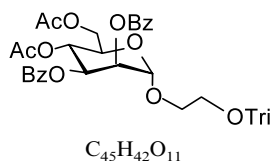


$$[\alpha]_D^{25} = +42.5 \text{ (c 1.3, H}_2\text{O)}$$

Methyl 2-acetamido-2-deoxy- β -D-glucopyranosyl-(1 $\rightarrow$ 2)- α -D-mannopyranosyl-(1 $\rightarrow$ 6)- α -D-mannopyranoside

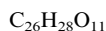
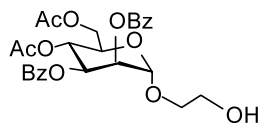
Zuchao Ma, Jianjun Zhang and Fanzuo Kong*

Tetrahedron: Asymmetry 14 (2003) 2595

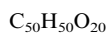
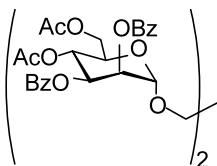


$$[\alpha]_D^{25} = -45.3 \text{ (c 1.0, CHCl}_3\text{)}$$

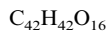
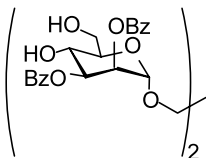
Trityloxyethyl 4,6-di-*O*-acetyl-2,3-di-*O*-benzoyl- α -D-mannopyranoside

Hydroxyethyl 4,6-di-O-acetyl-2,3-di-O-benzoyl- α -D-mannopyranoside

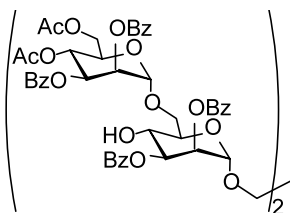
$$[\alpha]_{\text{D}}^{25} = -47.5 \text{ (c 0.6, CHCl}_3\text{)}$$

1,2-Di-[4,6-di-O-acetyl-2,3-di-O-benzoyl- α -D-mannopyranosyloxy]ethane

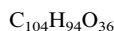
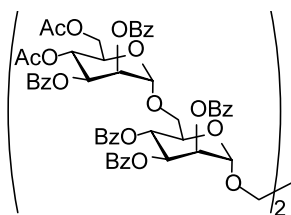
$$[\alpha]_{\text{D}}^{25} = -78.0 \text{ (c 1.0, CHCl}_3\text{)}$$

1,2-Di-[2,3-di-O-benzoyl- α -D-mannopyranosyloxy]ethane

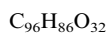
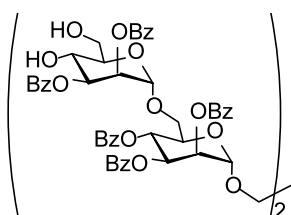
$$[\alpha]_{\text{D}}^{25} = -79.7 \text{ (c 1.5, CHCl}_3\text{)}$$

1,2-Di-[4,6-di-O-acetyl-2,3-di-O-benzoyl- α -D-mannopyranosyl-(1→6)-2,3-di-O-benzoyl- α -D-mannopyranosyloxy]ethane

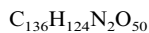
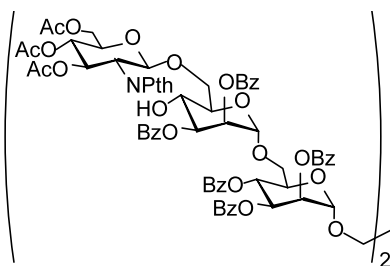
$$[\alpha]_{\text{D}}^{25} = -54.6 \text{ (c 1.0, CHCl}_3\text{)}$$

1,2-Di-[4,6-di-O-acetyl-2,3-di-O-benzoyl- α -D-mannopyranosyl-(1 $\rightarrow$ 6)-2,3,4-tri-O-benzoyl- α -D-mannopyranosyloxy]ethane

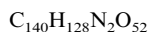
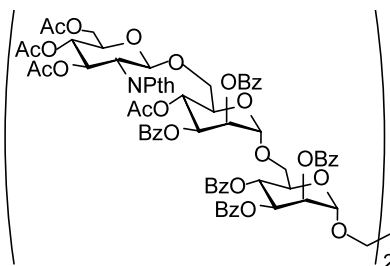
$$[\alpha]_{\text{D}}^{25} = -84.6 \text{ (} c \text{ 1.0, CHCl}_3 \text{)}$$

1,2-Di-[2,3-di-O-benzoyl- α -D-mannopyranosyl-(1 $\rightarrow$ 6)-2,3,4-tri-O-benzoyl- α -D-mannopyranosyloxy]ethane

$$[\alpha]_{\text{D}} = -108.5 \text{ (} c \text{ 1.0, CHCl}_3 \text{)}$$

1,2-Di-[3,4,6-tri-O-acetyl-2-deoxy-2-phthalimido- β -D-glucopyranosyl-(1 $\rightarrow$ 6)-2,3-di-O-benzoyl- α -D-mannopyranosyl-(1 $\rightarrow$ 6)-2,3,4-tri-O-benzoyl- α -D-mannopyranosyloxy]ethane

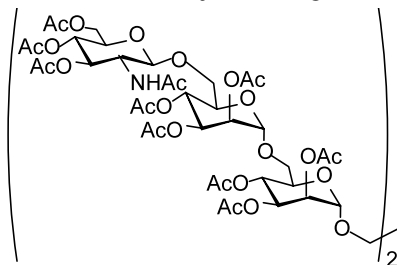
$$[\alpha]_{\text{D}} = -45.6 \text{ (} c \text{ 1.0, CHCl}_3 \text{)}$$

1,2-Di-[3,4,6-tri-O-acetyl-2-deoxy-2-phthalimido- β -D-glucopyranosyl-(1 $\rightarrow$ 6)-4-O-acetyl-2,3-di-O-benzoyl- α -D-mannopyranosyl-(1 $\rightarrow$ 6)-2,3,4-tri-O-benzoyl- α -D-mannopyranosyloxy]ethane

$$[\alpha]_{\text{D}}^{25} = -58.5 \text{ (} c \text{ 1.3, CHCl}_3 \text{)}$$

Zuchao Ma, Jianjun Zhang and Fanzuo Kong*

Tetrahedron: Asymmetry 14 (2003) 2595



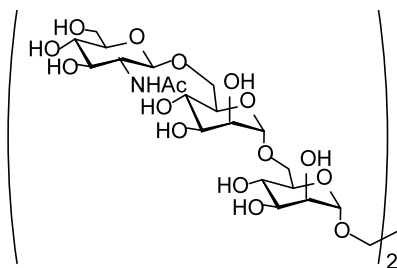
$$[\alpha]_D^{25} = +96.7 \text{ (c 1.0, CHCl}_3\text{)}$$



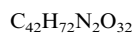
1,2-Di-[2-acetamido-3,4,6-tri-*O*-acetyl-2-deoxy-β-D-glucopyranosyl-(1→6)-2,3,4-tri-*O*-acetyl-α-D-mannopyranosyl-(1→6)-2,3,4-tri-*O*-acetyl-α-D-mannopyranosyloxy]ethane

Zuchao Ma, Jianjun Zhang and Fanzuo Kong*

Tetrahedron: Asymmetry 14 (2003) 2595



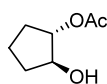
$$[\alpha]_D^{25} = +91.5 \text{ (c 1.0, H}_2\text{O)}$$



1,2-Di-[2-acetamido-2-deoxy-β-D-glucopyranosyl-(1→6)-α-D-mannopyranosyl-(1→6)-α-D-mannopyranosyloxy]ethane

Viktória Bódai, Olivér Orovecz, György Szakács, Lajos Novák and László Poppe*

Tetrahedron: Asymmetry 14 (2003) 2605



(*S,S*)-2-Acetoxycyclopentan-1-ol

Ee >99% (by GC on HP Chiral column)

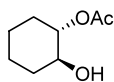
$$[\alpha]_D^{22} = +29.2 \text{ (c 1.0 in acetonitrile)}$$

Source of chirality: lipase-catalysed kinetic resolution

Absolute configuration: *S,S*

Viktória Bódai, Olivér Orovecz, György Szakács, Lajos Novák and László Poppe*

Tetrahedron: Asymmetry 14 (2003) 2605



(*S,S*)-2-Acetoxycyclohexan-1-ol

Ee = 97% (by GC on HP Chiral column)

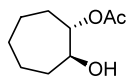
$$[\alpha]_D^{22} = +44.3 \text{ (c 1.0 in CHCl}_3\text{)}$$

Source of chirality: lipase-catalysed kinetic resolution

Absolute configuration: *S,S*

Viktória Bódai, Olivér Orovecz, György Szakács, Lajos Novák and László Poppe*

Tetrahedron: Asymmetry 14 (2003) 2605



$C_9H_{16}O_3$

(*S,S*)-2-Acetoxycycloheptan-1-ol

Ee >99% (by GC on HP Chiral column)

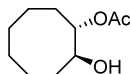
$[\alpha]_D^{22} = +22.9$ (c 1.0 in acetonitrile)

Source of chirality: lipase-catalysed kinetic resolution

Absolute configuration: *S,S*

Viktória Bódai, Olivér Orovecz, György Szakács, Lajos Novák and László Poppe*

Tetrahedron: Asymmetry 14 (2003) 2605



$C_{10}H_{18}O_3$

(*S,S*)-2-Acetoxycyclooctan-1-ol

Ee = 94% (by GC on Beta-DEX 225 chiral column)

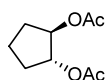
$[\alpha]_D^{22} = +9.1$ (c 1.0 in acetonitrile)

Source of chirality: lipase-catalysed kinetic resolution

Absolute configuration: *S,S*

Viktória Bódai, Olivér Orovecz, György Szakács, Lajos Novák and László Poppe*

Tetrahedron: Asymmetry 14 (2003) 2605



$C_9H_{14}O_4$

(*R,R*)-1,2-Diacetoxycyclopentane

Ee >98%

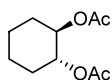
$[\alpha]_D^{22} = -29.7$ (c 1.0 in acetonitrile)

Source of chirality: lipase-catalysed kinetic resolution

Absolute configuration: *R,R*

Viktória Bódai, Olivér Orovecz, György Szakács, Lajos Novák and László Poppe*

Tetrahedron: Asymmetry 14 (2003) 2605



$C_{10}H_{16}O_4$

(*R,R*)-1,2-Diacetoxycyclohexane

Ee >99% (by GC on HP Chiral column)

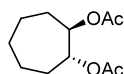
$[\alpha]_D^{22} = -13.7$ (c 1.0 in $CHCl_3$)

Source of chirality: lipase-catalysed kinetic resolution

Absolute configuration: *R,R*

Viktória Bódai, Olivér Orovecz, György Szakács, Lajos Novák and László Poppe*

Tetrahedron: Asymmetry 14 (2003) 2605



$C_{10}H_{16}O_4$

(*R,R*)-1,2-Diacetoxycycloheptane

Ee >98% (by GC on HP Chiral column)

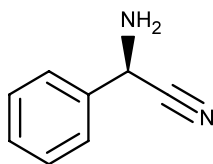
$[\alpha]_D^{25} = -13.1$ (c 1.0 in acetonitrile)

Source of chirality: lipase-catalysed kinetic resolution

Absolute configuration: *R,R*

Ghermes G. Chilov, Harold M. Moody, Wilhelmus H. J. Boesten and Vytas K. Švedas*

Tetrahedron: Asymmetry 14 (2003) 2613



$C_8H_8N_2$

(*R*)-Phenylglycinonitrile

E.e. = 99% (chiral HPLC)

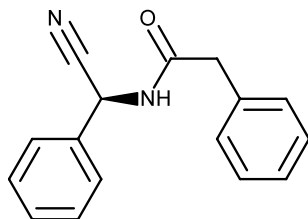
$[\alpha]_D = +51.0$ (c 1, 1N HCl)

Source of chirality: enantioselective enzymatic acylation

Absolute configuration: *R* (chiral HPLC)

Ghermes G. Chilov, Harold M. Moody, Wilhelmus H. J. Boesten and Vytas K. Švedas*

Tetrahedron: Asymmetry 14 (2003) 2613



$C_{16}H_{14}N_2O$

N-Phenylacetyl-(*S*)-phenylglycinonitrile

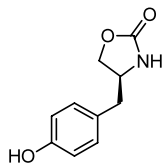
$[\alpha]_D = +17.2$ (c 1, MeOH)

Source of chirality: enantioselective enzymatic acylation

Absolute configuration: *S*

Rachel Green, Piers J. M. Taylor, Steven D. Bull,* Tony D. James,* Mary F. Mahon and Andy T. Merritt

Tetrahedron: Asymmetry 14 (2003) 2619



$C_{10}H_{11}NO_3$

(*S*)-4-(4-Hydroxybenzyl)-oxazolidin-2-one

E.e. >99%

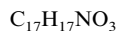
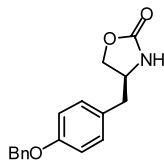
$[\alpha]_D^{25} = -12.3$ (c 6.5, MeOH)

Determined via conversion into (*S*)-4-(4-benzyloxybenzyl)-oxazolidin-2-one

Chirality derived from L-tyrosine

Rachel Green, Piers J. M. Taylor, Steven D. Bull,* Tony D. James,*
Mary F. Mahon and Andy T. Merritt

Tetrahedron: Asymmetry 14 (2003) 2619



(*S*)-4-(4-Benzyloxy-benzyl)-oxazolidin-2-one

E.e. >99%

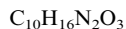
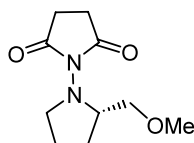
$[\alpha]_D^{25} = -85.1$ (c 50.5, EtOAc)

HPLC over ChiralCel OD® stationary phase

Chirality derived from L-tyrosine

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



(2'*S*)-2'-Methoxymethyl[1,1']bipyrrolidinyl-2,5-dione

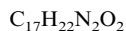
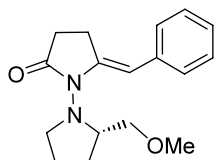
$[\alpha]_D^{25} = +5.6$ (c 1.36, $CHCl_3$)

Source of chirality: (*S*)-proline

Absolute configuration: 2'*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



(2'*S*)-5-Benzylidene-2'-methoxymethyl[1,1']bipyrrolidinyl-2-one

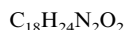
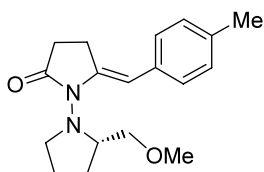
$[\alpha]_D^{25} = +15.3$ (c 1.37, $CHCl_3$)

Source of chirality: (*S*)-proline

Absolute configuration: 2'*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



(2'*S*)-2'-Methoxymethyl-5-(4-methylbenzylidene)[1,1']bipyrrolidinyl-2-one

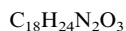
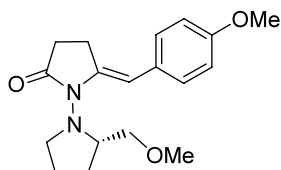
$[\alpha]_D^{25} = +14.0$ (c 0.32, $CHCl_3$)

Source of chirality: (*S*)-proline

Absolute configuration: 2'*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



(2'*S*)-5-(4-Methoxybenzylidene)-2'-methoxymethyl[1,1']bipyrrolidinyl-2-one

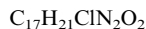
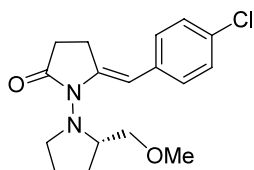
$[\alpha]_D^{25} = +17.7$ (*c* 0.68, $CHCl_3$)

Source of chirality: (*S*)-proline

Absolute configuration: 2'*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



(2'*S*)-5-(4-Chlorobenzylidene)-2'-methoxymethyl[1,1']bipyrrolidinyl-2-one

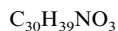
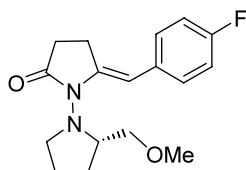
$[\alpha]_D^{25} = +17.8$ (*c* 0.62, $CHCl_3$)

Source of chirality: (*S*)-proline

Absolute configuration: 2'*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



(2'*S*)-5-(4-Fluorobenzylidene)-2'-methoxymethyl[1,1']bipyrrolidinyl-2-one

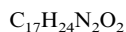
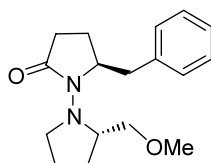
$[\alpha]_D^{25} = +15.6$ (*c* 0.68, $CHCl_3$)

Source of chirality: (*S*)-proline

Absolute configuration: 2'*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



(2'*S*,5*S*)-Benzyl-2'-methoxymethyl[1,1']bipyrrolidinyl-2-one

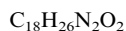
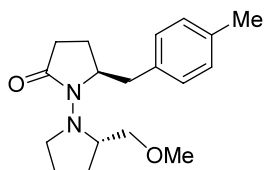
$[\alpha]_D^{25} = -64.4$ (*c* 0.57, $CHCl_3$)

Source of chirality: (*S*)-proline

Absolute configuration: 2'*S*,5*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



(2'*S*,5*S*)-2'-Methoxymethyl-5-(4-methylbenzyl)[1,1']bipyrrolidinyl-2-one

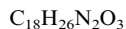
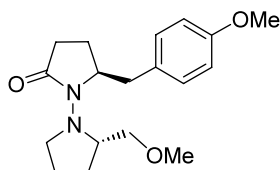
$[\alpha]_D^{25} = -21.1$ (*c* 0.30, $CHCl_3$)

Source of chirality: (*S*)-proline

Absolute configuration: 2'*S*,5*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



(2'*S*,5*S*)-5-(4-Methoxybenzyl)-2'-methoxymethyl[1,1']bipyrrolidinyl-2-one

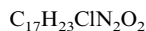
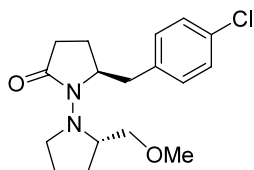
$[\alpha]_D^{20} = -38.2$ (*c* 0.97, $CHCl_3$)

Source of chirality: (*S*)-proline

Absolute configuration: 2'*S*,5*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



(2'*S*,5*S*)-5-(4-Chlorobenzyl)-2'-methoxymethyl[1,1']bipyrrolidinyl-2-one

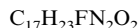
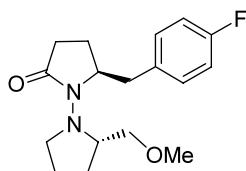
$[\alpha]_D^{25} = -66.6$ (*c* 1.02, $CHCl_3$)

Source of chirality: (*S*)-proline

Absolute configuration: 2'*S*,5*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



(2'*S*,5*S*)-5-(4-Fluorobenzyl)-2'-methoxymethyl[1,1']bipyrrolidinyl-2-one

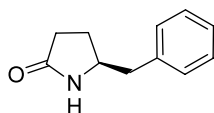
$[\alpha]_D^{25} = -59.7$ (*c* 1.37, $CHCl_3$)

Source of chirality: (*S*)-proline

Absolute configuration: 2'*S*,5*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



$C_{11}H_{13}NO$

(5*S*)-5-Benzylpyrrolidin-2-one

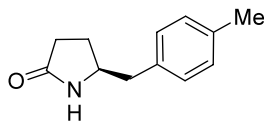
$[\alpha]_D^{25} = -38.5$ (*c* 0.80, EtOH)

Source of chirality: (*S*)-proline

Absolute configuration: 5*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



$C_{12}H_{15}NO$

(5*S*)-5-(4-Methylbenzyl)-pyrrolidin-2-one

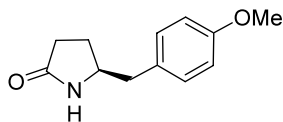
$[\alpha]_D^{25} = -14.5$ (*c* 1.30, EtOH)

Source of chirality: (*S*)-proline

Absolute configuration: 5*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



$C_{12}H_{15}NO_2$

(5*S*)-5-(4-Methoxybenzyl)-pyrrolidin-2-one

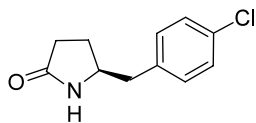
$[\alpha]_D^{25} = -30.2$ (*c* 1.10, EtOH)

Source of chirality: (*S*)-proline

Absolute configuration: 5*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



$C_{11}H_{12}ClNO$

(5*S*)-5-(4-Chlorobenzyl)-pyrrolidin-2-one

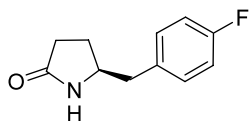
$[\alpha]_D^{25} = -22.3$ (*c* 0.75, EtOH)

Source of chirality: (*S*)-proline

Absolute configuration: 5*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



$C_{11}H_{12}FNO$

(5*S*)-5-(4-Fluorobenzyl)-pyrrolidin-2-one

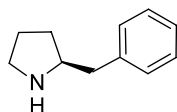
$[\alpha]_D^{25} = -40.6$ (*c* 0.50, EtOH)

Source of chirality: (*S*)-proline

Absolute configuration: 5*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



$C_{11}H_{15}N$

(2*S*)-2-Benzylpyrrolidine

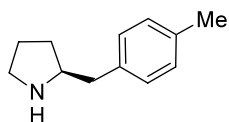
$[\alpha]_D^{25} = +19.5$ (*c* 0.40, MeOH)

Source of chirality: (*S*)-proline

Absolute configuration: 2*S*

Stéphane Lebrun, Axel Couture,* Eric Deniau
and Pierre Grandclaudon

Tetrahedron: Asymmetry 14 (2003) 2625



$C_{12}H_{17}N$

(2*S*)-2-(4-Methylbenzyl)-pyrrolidine

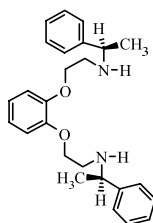
$[\alpha]_D^{25} = +12.4$ (*c* 0.32, MeOH)

Source of chirality: (*S*)-proline

Absolute configuration: 2*S*

N. Demirel* and Y. Bulut

Tetrahedron: Asymmetry 14 (2003) 2633



$C_{26}H_{32}N_2O_2$

(*R,R*)-(+)-1,2-Bis-[2-(*N*-phenylethylamino)ethoxy]benzene

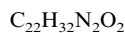
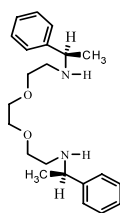
$[\alpha]_D^{20} = +42.6$ (*c* 1, EtOH)

Source of chirality: (*R*)-(+)-1-phenylethyl

Absolute configuration: *R,R*

N. Demirel* and Y. Bulut

Tetrahedron: Asymmetry 14 (2003) 2633



1,10-Di-(*R*)-(+)-1-phenylethyl-4,7-dioxia-1,10-diazadecane

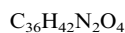
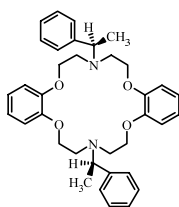
$[\alpha]_{\text{D}}^{20} = +25.5$ (*c* 1, EtOH)

Source of chirality: (*R*)-(+)-1-phenylethyl amine

Absolute configuration: *R,R*

N. Demirel* and Y. Bulut

Tetrahedron: Asymmetry 14 (2003) 2633



N,N'-Di-(*R*)-(+)-1-phenylethyl-7,16-diaza-1,4,10,13-tetraoxa-2,3,11,12-dibenzo-cyclooctadeca-2,11-diene

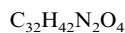
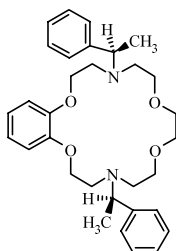
$[\alpha]_{\text{D}}^{25} = +23.2$ (*c* 0.05, CH_2Cl_2)

Source of chirality: (*R*)-(+)-1-phenylethyl amine

Absolute configuration: *R,R*

N. Demirel* and Y. Bulut

Tetrahedron: Asymmetry 14 (2003) 2633



N,N'-Di-(*R*)-(+)-1-phenylethyl-7,16-diaza-1,4,10,13-tetraoxa-2,3-benzo-cyclooctadec-2-ene

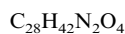
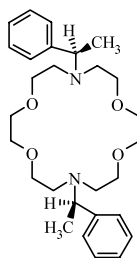
$[\alpha]_{\text{D}}^{20} = +27.4$ (*c* 0.05, CH_2Cl_2)

Source of chirality: (*R*)-(+)-1-phenylethyl amine

Absolute configuration: *R,R*

N. Demirel* and Y. Bulut

Tetrahedron: Asymmetry 14 (2003) 2633



N,N'-Di-(*R*)-(+)-1-phenylethyl-1,7,10,16-tetraoxa-4,13-diaza-cyclooctadecane

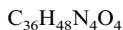
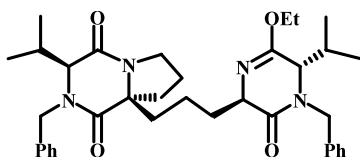
$[\alpha]_{\text{D}}^{20} = +19.2$ (*c* 0.05, CH_2Cl_2)

Source of chirality: (*R*)-(+)-1-phenylethyl amine

Absolute configuration: *R,R*

R. Galeazzi, M. Garavelli, A. Grandi, M. Monari, G. Porzi* and S. Sandri*

Tetrahedron: Asymmetry 14 (2003) 2639



1-[(3'S,6'R)-4'-Benzyl-2',5'-diketo-3'-isopropyl-1',4'-diazabicyclo[4,3,0]-6'-nonyl-3-[(3''S,6''R)-4''-benzyl-2''-ethoxy-3'',6''-dihydro-3''-isopropyl-5''-pirazinon-6''-yl]propane

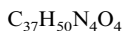
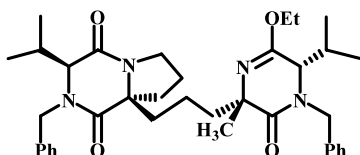
$[\alpha]_{\text{D}}^{25} = +44.6$ (c 2.6, CHCl_3)

Source of chirality: L-valine

Absolute configuration: 3'S,6'R,3''S,6''R

R. Galeazzi, M. Garavelli, A. Grandi, M. Monari, G. Porzi* and S. Sandri*

Tetrahedron: Asymmetry 14 (2003) 2639



1-[(3'S,6'R)-4'-Benzyl-2',5'-diketo-3'-isopropyl-1',4'-diazabicyclo[4,3,0]-6'-nonyl-3-[(3''S,6''S)-4''-benzyl-2''-ethoxy-3''-hydro-6''-methyl-3''-isopropyl-5''-pirazinon-6''-yl]propane

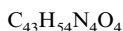
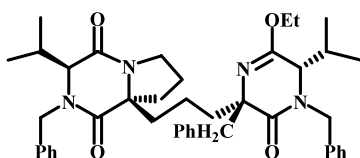
$[\alpha]_{\text{D}}^{25} = -27.6$ (c 0.7, CHCl_3)

Source of chirality: L-valine

Absolute configuration: 3'S,6'R,3''S,6''S

R. Galeazzi, M. Garavelli, A. Grandi, M. Monari, G. Porzi* and S. Sandri*

Tetrahedron: Asymmetry 14 (2003) 2639



1-[(3'S,6'R)-4'-Benzyl-2',5'-diketo-3'-isopropyl-1',4'-diazabicyclo[4,3,0]-6'-nonyl-3-[(3''S,6''R)-4'',6''-dibenzyl-2''-ethoxy-3''-hydro-3''-isopropyl-5''-pirazinon-6''-yl]propane

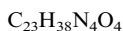
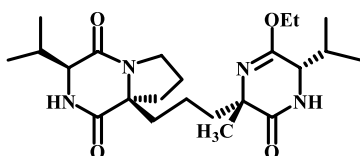
$[\alpha]_{\text{D}}^{25} = -40.2$ (c 1, CHCl_3)

Source of chirality: L-valine

Absolute configuration: 3'S,6'R,3''S,6''R

R. Galeazzi, M. Garavelli, A. Grandi, M. Monari, G. Porzi* and S. Sandri*

Tetrahedron: Asymmetry 14 (2003) 2639



1-[(3'S,6'R)-2',5'-Diketo-3'-isopropyl-1',4'-diazabicyclo[4,3,0]-6'-nonyl-3-[(3''S,6''S)-2''-ethoxy-3''-dihydro-3''-isopropyl-6''-methyl-5''-pirazinon-6''-yl]propane

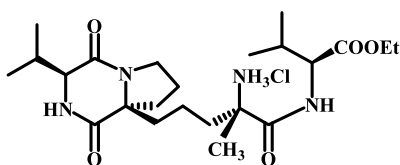
$[\alpha]_{\text{D}}^{25} = +12.7$ (c 1.2, CHCl_3)

Source of chirality: L-valine

Absolute configuration: 3'S,6'R,3''S,6''S

R. Galeazzi, M. Garavelli, A. Grandi, M. Monari, G. Porzi* and S. Sandri*

Tetrahedron: Asymmetry 14 (2003) 2639



8-[(3'S,6'R)-2',5'-Diketo-3'-isopropyl-1',4'-diazabicyclo[4,3,0]non-6'-yl]-(2S,5S)-3-aza-5-amino-4-keto-2-isopropyl-5-methylethyl octanoate hydrochloride

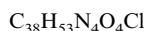
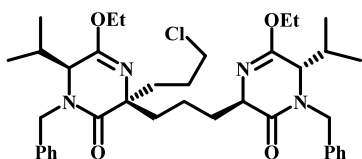
$[\alpha]_D^{25} = +10$ (c 1.4, $CHCl_3$)

Source of chirality: L-valine

Absolute configuration: 3'S,6'R,2S,5S

R. Galeazzi, M. Garavelli, A. Grandi, M. Monari, G. Porzi* and S. Sandri*

Tetrahedron: Asymmetry 14 (2003) 2639



1-[(3'R,6'S)-1'-Benzyl-3'-(3-chloropropyl)-6'-hydro-5'-ethoxy-6'-isopropyl-2-pirazinon-3'-yl]-3-[(3'R,6'S)-1''-benzyl-3'',6''-dihydro-5''-ethoxy-6''-isopropyl-2''-pirazinon-3''-yl]propane

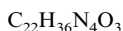
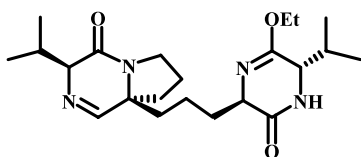
$[\alpha]_D^{25} = +2.8$ (c 0.7, $CHCl_3$)

Source of chirality: L-valine

Absolute configuration: 3'R,6'S,3''R,6''S

R. Galeazzi, M. Garavelli, A. Grandi, M. Monari, G. Porzi* and S. Sandri*

Tetrahedron: Asymmetry 14 (2003) 2639



1-[(3'S,6'R)-2'-Keto-3'-isopropyl-1',4'-diazabicyclo[4,3,0]-4'-nonen-6'-yl]-3-[(3'S,6'R)-2''-ethoxy-3'',6''-dihydro-3''-isopropyl-5''-pirazinon-6''-yl]propane

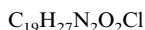
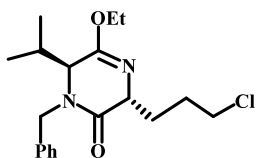
$[\alpha]_D^{25} = +78.6$ (c 0.9, $CHCl_3$)

Source of chirality: L-valine

Absolute configuration: 3'S,6'R,3''S,6''R

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Tetrahedron: Asymmetry 14 (2003) 2639



(3R,6S)-1-Benzyl-5-ethoxy-6-isopropyl-3-(3-chloropropyl)-6-hydro-2-pirazinone

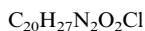
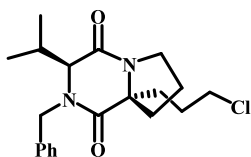
$[\alpha]_D^{25} = +50.5$ (c 2.0, $CHCl_3$)

Source of chirality: L-valine

Absolute configuration: 3R,6S

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Tetrahedron: Asymmetry 14 (2003) 2639



(3*S*,6*R*)-4-Benzyl-2,5-diketo-3-isopropyl-6-(3-chloropropyl)-1,4-diazabicyclo[4,3,0]nonane

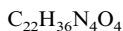
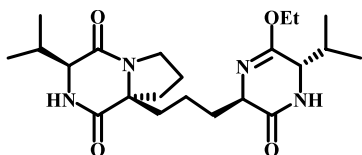
$[\alpha]_D^{25} = -55.3$ (*c* 1.5, $CHCl_3$)

Source of chirality: L-valine

Absolute configuration: 3*S*,6*R*

R. Galeazzi, M. Garavelli, A. Grandi, M. Monari, G. Porzi* and S. Sandri*

Tetrahedron: Asymmetry 14 (2003) 2639



1-[(3'*S*,6'*R*)-2',5'-Diketo-3'-isopropyl-1',4'-diazabicyclo[4,3,0]-6'-nonyl]-3-[(3''*S*,6''*R*)-2''-ethoxy-3'',6''-dihydro-3''-isopropyl-5''-pirazinon-6''-yl]-propane

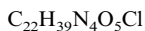
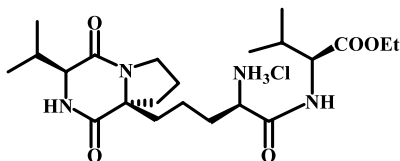
$[\alpha]_D^{25} = +130.3$ (*c* 1.1, $CHCl_3$)

Source of chirality: L-valine

Absolute configuration: 3'*S*,6'*R*,3''*S*,6''*R*

R. Galeazzi, M. Garavelli, A. Grandi, M. Monari, G. Porzi* and S. Sandri*

Tetrahedron: Asymmetry 14 (2003) 2639



8-[(3'*S*,6'*R*)-2',5'-Diketo-3'-isopropyl-1',4'-diazabicyclo[4,3,0]non-6'-yl]-(2*S*,5*R*)-3-aza-5-amino-4-keto-2-isopropylethyloctanoate hydrochloride

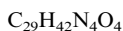
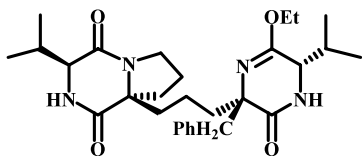
$[\alpha]_D^{25} = -24$ (*c* 0.8, 1*N* HCl)

Source of chirality: L-valine

Absolute configuration: 3'*S*,6'*R*,2*S*,5*R*

R. Galeazzi, M. Garavelli, A. Grandi, M. Monari, G. Porzi* and S. Sandri*

Tetrahedron: Asymmetry 14 (2003) 2639



1-[(3'*S*,6'*R*)-2',5'-Diketo-3'-isopropyl-1',4'-diazabicyclo[4,3,0]-6'-nonyl]-3-[(3''*S*,6''*R*)-6''-benzyl-2''-ethoxy-3'',6''-dihydro-3''-isopropyl-5''-pirazinon-6''-yl]propane

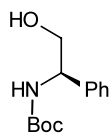
$[\alpha]_D^{25} = -25.2$ (*c* 1, $CHCl_3$)

Source of chirality: L-valine

Absolute configuration: 3'*S*,6'*R*,3''*S*,6''*R*

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Silvia Sternativo, Claudio Santi, Luana Bagnoli and Andrea Temperini

Tetrahedron: Asymmetry 14 (2003) 2651



$C_{13}H_{19}NO_3$

tert-Butyl (1*R*)-2-hydroxy-1-phenylethylcarbamate

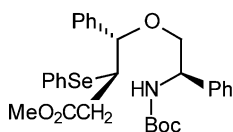
$[\alpha]_D^{24} = -39.2$ (*c* 3.05, $CHCl_3$)

Source of chirality: (*R*)-phenylglycinol

Absolute configuration: *R*

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Silvia Sternativo, Claudio Santi, Luana Bagnoli and Andrea Temperini

Tetrahedron: Asymmetry 14 (2003) 2651



$C_{30}H_{35}NO_5Se$

Methyl (3*R*,4*S*)-4-((2*R*)-2-[(*tert*-butoxycarbonyl)amino]-2-phenylethyl)oxy-4-phenyl-3-(phenylseleno)butanoate

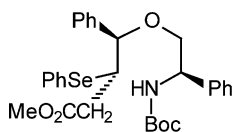
$[\alpha]_D^{22} = +18.8$ (*c* 1.60, $CHCl_3$)

Source of chirality: (*R*)-phenylglycinol

Absolute configuration: 2*R*,3*R*,4*S*

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Silvia Sternativo, Claudio Santi, Luana Bagnoli and Andrea Temperini

Tetrahedron: Asymmetry 14 (2003) 2651



$C_{30}H_{35}NO_5Se$

Methyl (3*S*,4*R*)-4-((2*R*)-2-[(*tert*-butoxycarbonyl)amino]-2-phenylethyl)oxy-4-phenyl-3-(phenylseleno)butanoate

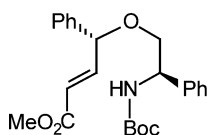
$[\alpha]_D^{27} = -37.7$ (*c* 2.75, $CHCl_3$)

Source of chirality: (*R*)-phenylglycinol

Absolute configuration: 2*R*,3*S*,4*R*

Marcello Tiecco,* Lorenzo Testaferri, Francesca Marini,
Silvia Sternativo, Claudio Santi, Luana Bagnoli and Andrea Temperini

Tetrahedron: Asymmetry 14 (2003) 2651



$C_{24}H_{29}NO_5$

Methyl (2*E*,4*R*)-4-((2*R*)-2-[(*tert*-butoxycarbonyl)amino]-2-phenylethyl)oxy-4-phenylbut-2-enoate

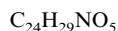
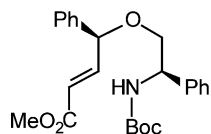
$[\alpha]_D^{22} = +16.3$ (*c* 1.58, $CHCl_3$)

Source of chirality: (*R*)-phenylglycinol

Absolute configuration: 2*R*,4*R*

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Silvia Sternativo, Claudio Santi, Luana Bagnoli and Andrea Temperini

Tetrahedron: Asymmetry 14 (2003) 2651



Methyl (2E,4S)-4-((2R)-2-[(tert-butoxycarbonyl)amino]-2-phenylethyl)oxy-4-phenylbut-2-enoate

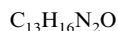
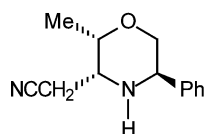
$[\alpha]_D^{26} = -58.4$ (c 3.48, $CHCl_3$)

Source of chirality: (R)-phenylglycinol

Absolute configuration: 2R,4S

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Tetrahedron: Asymmetry 14 (2003) 2651



[(2S,3R,5R)-2-methyl-5-phenylmorpholin-3-yl]acetonitrile

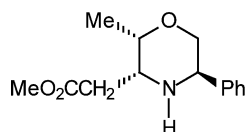
$[\alpha]_D^{30} = +20.7$ (c 0.61, $CHCl_3$)

Source of chirality: (R)-phenylglycinol

Absolute configuration: 2S,3R,5R

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Silvia Sternativo, Claudio Santi, Luana Bagnoli and Andrea Temperini

Tetrahedron: Asymmetry 14 (2003) 2651



Methyl [(2S,3R,5R)-2-methyl-5-phenylmorpholin-3-yl]acetate

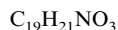
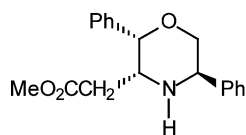
$[\alpha]_D^{33} = -7.4$ (c 0.60, $CHCl_3$)

Source of chirality: (R)-phenylglycinol

Absolute configuration: 2S,3R,5R

Marcello Tiecco,* Lorenzo Testaferri, Francesca Marini,
Silvia Sternativo, Claudio Santi, Luana Bagnoli and Andrea Temperini

Tetrahedron: Asymmetry 14 (2003) 2651



Methyl [(2S,3R,5R)-2,5-diphenylmorpholin-3-yl]acetate

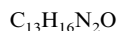
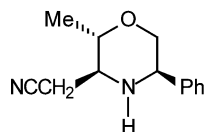
$[\alpha]_D^{27} = -3.81$ (c 0.83, $CHCl_3$)

Source of chirality: (R)-phenylglycinol

Absolute configuration: 2S,3R,5R

Marcello Tiecco,* Lorenzo Testaferri, Francesca Marini,
Silvia Sternativo, Claudio Santi, Luana Bagnoli and Andrea Temperini

Tetrahedron: Asymmetry 14 (2003) 2651



[(2*S*,3*S*,5*R*)-2-Methyl-5-phenylmorpholin-3-yl]acetonitrile

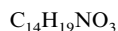
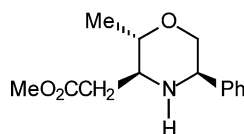
$[\alpha]_D^{31} = -32.2$ (*c* 0.60, $CHCl_3$)

Source of chirality: (*R*)-phenylglycinol

Absolute configuration: 2*S*,3*S*,5*R*

Marcello Tiecco,* Lorenzo Testaferri, Francesca Marini,
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Tetrahedron: Asymmetry 14 (2003) 2651



Methyl [(2*S*,3*S*,5*R*)-2-methyl-5-phenylmorpholin-3-yl]acetate

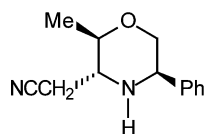
$[\alpha]_D^{29} = -65.6$ (*c* 0.60, $CHCl_3$)

Source of chirality: (*R*)-phenylglycinol

Absolute configuration: 2*S*,3*S*,5*R*

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[(2*R*,3*R*,5*R*)-2-Methyl-5-phenylmorpholin-3-yl]acetonitrile

$[\alpha]_D^{32} = -14.1$ (*c* 0.53, $CHCl_3$)

Source of chirality: (*R*)-phenylglycinol

Absolute configuration: 2*R*,3*R*,5*R*