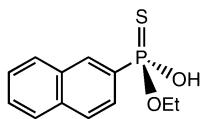


Stereochemistry abstracts

Yuka Kobayashi, Jin Maeda and Kazuhiko Saigo*

Tetrahedron: Asymmetry 17 (2006) 1617



(*Sp*)-*O*-Ethyl (2-naphthyl)phosphonothioic acid

Ee >99%

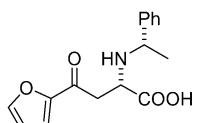
[α]_D²¹ = +10.1 (c 5.4, MeOH)

Source of chirality: (*R*)-phenylethylamine

Absolute configuration: *Sp*

Pavol Jakubec,* Dušan Berkeš, Richard Šiška, Mária Gardianová and František Považanec

Tetrahedron: Asymmetry 17 (2006) 1629



(2*S*,1'*S*)-4-(Furan-2-yl)-4-oxo-2-[(1'-phenylethyl)amino]-butanoic acid

De 98%

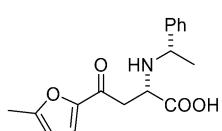
[α]_D²⁵ = +37.2 (c 0.9, MeOH/1 M HCl 3:1)

Source of chirality: (*S*)-phenylethylamine, crystallisation induced asymmetric transformation (CIAT)

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

Pavol Jakubec,* Dušan Berkeš, Richard Šiška, Mária Gardianová and František Považanec

Tetrahedron: Asymmetry 17 (2006) 1629



(2*S*,1'*S*)-4-(5-Methylfuran-2-yl)-4-oxo-2-[(1'-phenylethyl)amino]-butanoic acid

De 98%

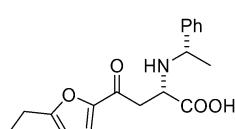
[α]_D²⁵ = +50.3 (c 1.0, MeOH/1 M HCl 3:1)

Source of chirality: (*S*)-phenylethylamine, crystallisation induced asymmetric transformation (CIAT)

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

Pavol Jakubec,* Dušan Berkeš, Richard Šiška, Mária Gardianová and František Považanec

Tetrahedron: Asymmetry 17 (2006) 1629



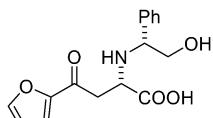
(2*S*,1'*S*)-4-(5-Ethylfuran-2-yl)-4-oxo-2-[(1'-phenylethyl)amino]-butanoic acid

De 98%

[α]_D²⁵ = +50.7 (c 0.3, MeOH/1 M HCl 3:1)

Source of chirality: (*S*)-phenylethylamine, crystallisation induced asymmetric transformation (CIAT)

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



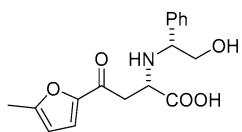
($2S,1'R$)-4-(Furan-2-yl)-2-[(2'-hydroxy-1'-phenylethyl)amino]-4-oxobutanoic acid

De 98%

$[\alpha]_D^{25} = +23.2$ (*c* 0.5, MeOH/1 M HCl 3:1)

Source of chirality: (*R*)-2-amino-2-phenylethanol, crystallisation induced asymmetric transformation (CIAT)

Absolute configuration: ($2S,1'R$)



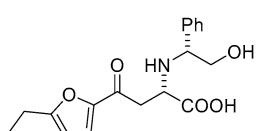
($2S,1'R$)-4-(5-Methylfuran-2-yl)-2-[(2'-hydroxy-1'-phenylethyl)amino]-4-oxobutanoic acid

De 98%

$[\alpha]_D^{25} = +36.7$ (*c* 0.6, MeOH/1 M HCl 3:1)

Source of chirality: (*R*)-2-amino-2-phenylethanol, crystallisation induced asymmetric transformation (CIAT)

Absolute configuration: ($2S,1'R$)



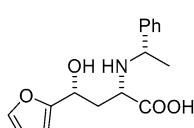
($2S,1'R$)-4-(5-Ethylfuran-2-yl)-2-[(2'-hydroxy-1'-phenylethyl)amino]-4-oxobutanoic acid

De 92%

$[\alpha]_D^{25} = +31.3$ (*c* 0.5, MeOH/1 M HCl 3:1)

Source of chirality: (*R*)-2-amino-2-phenylethanol, crystallisation induced asymmetric transformation (CIAT)

Absolute configuration: ($2S,1'R$)



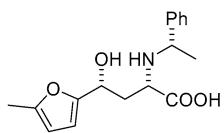
($2S,4R,1'S$)-4-(Furan-2-yl)-4-hydroxy-2-[(1'-phenylethyl)amino]-butanoic acid

De 98%

$[\alpha]_D^{25} = -37.2$ (*c* 1.0, 0.1 M NaOH)

Source of chirality: (*S*)-phenylethylamine, crystallisation induced asymmetric transformation (CIAT), stereoselective synthesis

Absolute configuration: ($2S,4R,1'S$)



C₁₇H₂₁NO₄

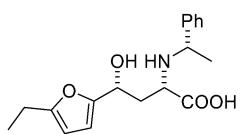
(2S,4R,1'S)-4-Hydroxy-4-(5-methylfuran-2-yl)-2-[(1'-phenylethyl)amino]-butanoic acid

De 98%

$[\alpha]_D^{25} = -44.0$ (*c* 0.1, 0.1 M NaOH)

Source of chirality: (*S*)-phenylethylamine, crystallisation induced asymmetric transformation (CIAT), stereoselective synthesis

Absolute configuration: (2*S*,4*R*,1'*S*)



C₁₈H₂₃NO₄

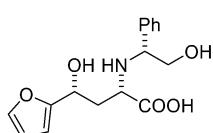
(2S,4R,1'S)-4-(5-Ethylfuran-2-yl)-4-hydroxy-2-[(1'-phenylethyl)amino]-butanoic acid

De 98%

$[\alpha]_D^{25} = -35.1$ (*c* 1.0, 0.1 M NaOH)

Source of chirality: (*S*)-phenylethylamine, crystallisation induced asymmetric transformation (CIAT), stereoselective synthesis

Absolute configuration: (2*S*,4*R*,1'*S*)



C₁₆H₁₉NO₅·H₂O

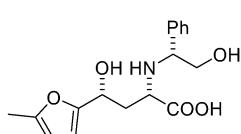
(2S,4R,1'R)-4-(Furan-2-yl)-4-hydroxy-2-[(2'-hydroxy-1'-phenylethyl)amino]-butanoic acid

De 98%

$[\alpha]_D^{25} = -43.9$ (*c* 1.0, 0.1 M NaOH)

Source of chirality: (*R*)-2-amino-2-phenylethanol, crystallisation induced asymmetric transformation (CIAT), stereoselective synthesis

Absolute configuration: (2*S*,4*R*,1'*S*)



C₁₇H₂₁NO₅·H₂O

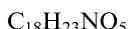
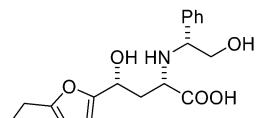
(2S,4R,1'R)-4-Hydroxy-2-[(2'-hydroxy-1'-phenylethyl)amino]-4-(5-methylfuran-2-yl)-butanoic acid

De 98%

$[\alpha]_D^{25} = -43.1$ (*c* 1.0, 0.1 M NaOH)

Source of chirality: (*R*)-2-amino-2-phenylethanol, crystallisation induced asymmetric transformation (CIAT), stereoselective synthesis

Absolute configuration: (2*S*,4*R*,1'*S*)



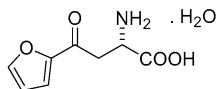
(2S,4R,1'R)-4-(5-Ethylfuran-2-yl)-4-hydroxy-2-[(2'-hydroxy-1'-phenylethyl)amino]-butanoic acid

De 98%

$[\alpha]_D^{25} = -40.5$ (*c* 1.0, 0.1 M NaOH)

Source of chirality: (*R*)-2-amino-2-phenylethanol, crystallisation induced asymmetric transformation (CIAT), stereoselective synthesis

Absolute configuration: (2*S*,4*R*,1'*S*)



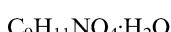
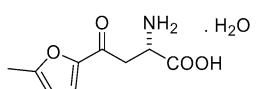
(2*S*)-2-Amino-4-(furan-2-yl)-4-oxobutanoic acid hydrate

Ee >98%

$[\alpha]_D^{25} = +43.2$ (*c* 0.5, 1 M HCl)

Source of chirality: (*R*)-2-amino-2-phenylethanol, crystallisation induced asymmetric transformation (CIAT)

Absolute configuration: (2*S*)



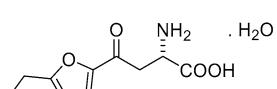
(2*S*)-2-Amino-4-(5-methylfuran-2-yl)-4-oxo-butanoic acid hydrate

Ee >98%

$[\alpha]_D^{25} = +49.1$ (*c* 1.0, 1 M HCl)

Source of chirality: (*R*)-2-amino-2-phenylethanol, crystallisation induced asymmetric transformation (CIAT)

Absolute configuration: (2*S*)



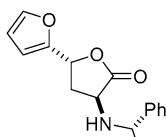
(2*S*)-2-Amino-4-(5-ethylfuran-2-yl)-4-oxo-butanoic acid hydrate

Ee 92%

$[\alpha]_D^{25} = +40.4$ (*c* 0.5, 1 M HCl)

Source of chirality: (*R*)-2-amino-2-phenylethanol, crystallisation induced asymmetric transformation (CIAT)

Absolute configuration: (2*S*)



C₁₆H₁₇NO₃

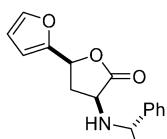
(2*R*,4*S*,1''*S*)-4-[(1''-Phenylethyl)amino]-3,4-dihydro-2,2'-bifuran-5(2*H*)-one

De 98%

[α]_D²⁵ = -189.6 (*c* 0.5, CHCl₃)

Source of chirality: (*S*)-phenylethylamine, crystallisation induced asymmetric transformation (CIAT), stereoselective synthesis

Absolute configuration: (2*S*,4*R*,1''*S*)



C₁₆H₁₇NO₃

(2*S*,4*S*,1''*S*)-4-[(1''-Phenylethyl)amino]-3,4-dihydro-2,2'-bifuran-5(2*H*)-one

De 99%

[α]_D²⁵ = +50.7 (*c* 1.0, CHCl₃)

Source of chirality: (*S*)-phenylethylamine, crystallisation induced asymmetric transformation (CIAT), stereoselective synthesis

Absolute configuration: (2*S*,4*R*,1''*S*)



C₁₄H₁₂O

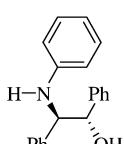
(1*R*,2*R*)-1,2-Diphenyl-oxirane

Ee = 98%

[α]_D²⁷ = +310 (*c* 2.5, C₆H₆)

Source of chirality: (1*R*,2*R*)-diaminocyclohexane

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



C₂₀H₁₉NO

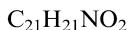
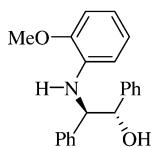
(1*S*,2*R*)-1,2-Diphenyl-2-phenylanilino-ethanol

Ee = 87%

[α]_D²⁷ = 45.6 (*c* 1, CHCl₃)

Source of chirality: (1*R*,2*R*)-diaminocyclohexane

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



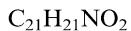
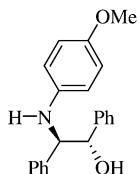
(1*S*,2*R*)-1,2-Diphenyl-2-(2-methoxy-phenylanilino)-ethanol

Ee = 87%

[α]_D²⁷ = +26 (*c* 1.2, CHCl₃)

Source of chirality: (1*R*,2*R*)-diaminocyclohexane

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



(1*S*,2*R*)-1,2-Diphenyl-2-(4-methoxy-phenylanilino)-ethanol

Ee = 87%

[α]_D²⁷ = +32.5 (*c* 1, CHCl₃)

Source of chirality: (1*R*,2*R*)-diaminocyclohexane

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



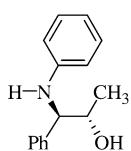
(2*R*,3*R*)-2-Methyl-3-phenyl-oxirane

Ee = 92%

[α]_D²⁷ = +66 (*c* 1.0, CH₂Cl₂)

Source of chirality: (1*R*,2*R*)-diaminocyclohexane

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



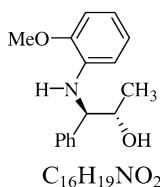
(1*R*,2*S*)-1-Phenylanilino-1-phenyl-propan-2-ol

Ee = 73%

[α]_D²⁷ = -20.2 (*c* 0.9, CHCl₃)

Source of chirality: (1*R*,2*R*)-diaminocyclohexane

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



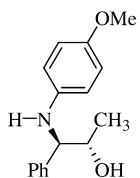
C₁₆H₁₉NO₂
(1*R*,2*S*)-1-(2-Methoxy-phenylanilino)-1-phenyl-propan-2-ol

Ee = 72%

[α]_D²⁷ = -19.5 (*c* 0.8, CHCl₃)

Source of chirality: (1*R*,2*R*)-diaminocyclohexane

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



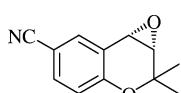
C₁₆H₁₉NO₂
(1*R*,2*S*)-1-(4-Methoxy-phenylanilino)-1-phenyl-propan-2-ol

Ee = 56%

[α]_D²⁷ = -15.8 (*c* 1.3, CHCl₃)

Source of chirality: (1*R*,2*R*)-diaminocyclohexane

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



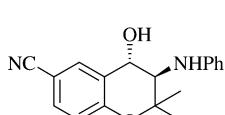
C₁₂H₁₁NO₂
(3*S*,4*S*)-6-Cyano-2,2-dimethyl-3,4 epoxy-chromane

Ee = 25%

[α]_D²⁷ = -6.9 (*c* 0.8, CH₂Cl₂)

Source of chirality: (1*R*,2*R*)-diaminocyclohexane

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



C₁₈H₁₈N₂O₂
(3*R*,4*S*)-6-Cyano-2,2-dimethyl-3-(phenylanilino)-chromane-4-ol

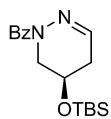
Ee = 21%

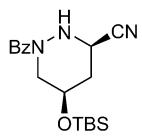
[α]_D²⁷ = +14.6 (*c* 1.2, CH₂Cl₂)

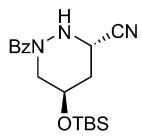
Source of chirality: (1*R*,2*R*)-diaminocyclohexane

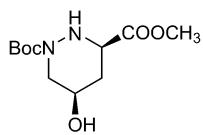
Absolute configuration: (3*R*,4*S*)

$[\alpha]_D^{25} = -26.7$ (*c* 1.43, CHCl₃)

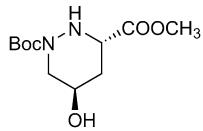
 Source of chirality: ethyl (*R*)-4-chloro-3-hydroxybutyrate
(R)-1-Benzoyl-5-(*tert*-butyldimethylsiloxy)-1,4,5,6-tetrahydropyridazine
 $[\alpha]_D^{25} = +15.8$ (*c* 0.85, CHCl₃)

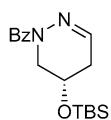
 Source of chirality: ethyl (*R*)-4-chloro-3-hydroxybutyrate
(3*R*,5*R*)-1-Benzoyl-5-(*tert*-butyldimethylsiloxy)-hexahydropyridazine-3-carbonitrile
 $[\alpha]_D^{24} = -26.7$ (*c* 1.19, CHCl₃)

 Source of chirality: ethyl (*R*)-4-chloro-3-hydroxybutyrate
(3*S*,5*R*)-1-Benzoyl-5-(*tert*-butyldimethylsiloxy)-hexahydropyridazine-3-carbonitrile
 $[\alpha]_D^{25} = +7.0$ (*c* 1.00, CHCl₃)

 Source of chirality: ethyl (*R*)-4-chloro-3-hydroxybutyrate
(3*R*,5*R*)-1-*tert*-Butoxycarbonyl-5-hydroxypiperazic acid methyl ester

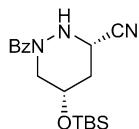
$[\alpha]_D^{26} = +1.96$ (*c* 1.00, CHCl₃)

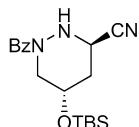
Source of chirality: ethyl (*R*)-4-chloro-3-hydroxybutyrate
(3*R*,5*S*)-1-tert-Butoxycarbonyl-5-hydroxypiperazic acid methyl ester
 $[\alpha]_D^{25} = +26.7$ (*c* 1.43, CHCl₃)

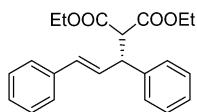
Source of chirality: (*S*)-malic acid


(S)-1-Benzoyl-5-(tert-butyldimethylsiloxy)-1,4,5,6-tetrahydropyridazine

 $[\alpha]_D^{25} = -13.0$ (*c* 0.89, CHCl₃)

Source of chirality: (*S*)-malic acid
(3*S*,5*S*)-1-Benzoyl-5-(tert-butyldimethylsiloxy)-hexahydropyridazine-3-carbonitrile
 $[\alpha]_D^{24} = +26.1$ (*c* 2.10, CHCl₃)

Source of chirality: (*S*)-malic acid
(3*R*,5*S*)-1-Benzoyl-5-(tert-butyldimethylsiloxy)-hexahydropyridazine-3-carbonitrile

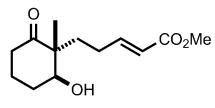


$C_{22}H_{24}O_4$
(*R,E*)-Diethyl 2-(1,3-diphenylallyl)malonate

$Ee = 87\%$
 $[\alpha]_D^{25} = +15.1 (c \ 1.40, \ CHCl_3)$

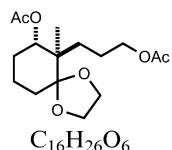
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*)

$[\alpha]_D^{20} = -19.2 (c \ 1.06, \ CHCl_3)$



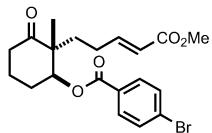
(*-*)-Methyl (*E*)-5-[(2*R*,3*S*)-3-hydroxy-2-methyl-1-oxocyclohexyl]-2-pentenoate

$[\alpha]_D^{25} = +23.7 (c \ 1.48, \ CHCl_3)$



(*-*)-(2*S*,3*S*)-1-Acetoxy-1,1-ethylenedioxy-2-methyl-2-(3-acetoxypropyl)cyclohexane

$[\alpha]_D^{20} = +44.4 (c \ 1.15, \ CHCl_3)$

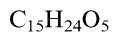
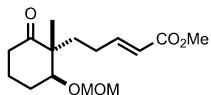


$C_{20}H_{23}BrO_5$
(*+*)-Methyl (*E*)-5-[(2*R*,3*S*)-3-(4-bromobenzoyloxy)-2-methyl-1-oxocyclohexyl]-2-pentenoate

Takahiro Katoh, Shinsuke Mizumoto, Masato Fudesaka,
Masatoshi Takeo, Tetsuya Kajimoto and Manabu Node*

Tetrahedron: Asymmetry 17 (2006) 1655

$$[\alpha]_D^{23} = +1.9 \text{ (c 1.00, CHCl}_3\text{)}$$

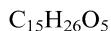
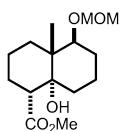


(+)-Methyl (E)-5-[2*R*,3*S*)-(3-methoxymethoxy-2-methyl-1-oxocyclohexyl)]-2-pentenoate

Takahiro Katoh, Shinsuke Mizumoto, Masato Fudesaka,
Masatoshi Takeo, Tetsuya Kajimoto and Manabu Node*

Tetrahedron: Asymmetry 17 (2006) 1655

$$[\alpha]_D^{25} = +75.6 \text{ (c 0.97, CHCl}_3\text{)}$$

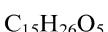
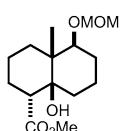


(+)-Methyl (2*R*,4*a**R*,5*S*,8*a**S*)-8*a*-hydroxy-5-methoxymethyl-4*a*-methyldeca-hydroneaphthalene-1-carboxylate

Takahiro Katoh, Shinsuke Mizumoto, Masato Fudesaka,
Masatoshi Takeo, Tetsuya Kajimoto and Manabu Node*

Tetrahedron: Asymmetry 17 (2006) 1655

$$[\alpha]_D^{23} = -31.9 \text{ (c 0.35, CHCl}_3\text{)}$$

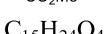
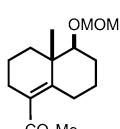


(-)-Methyl (2*R*,4*a**R*,5*S*,8*a**R*)-8*a*-hydroxy-5-methoxymethyl-4*a*-methyldecahydroneaphthalene-1-carboxylate

Takahiro Katoh, Shinsuke Mizumoto, Masato Fudesaka,
Masatoshi Takeo, Tetsuya Kajimoto and Manabu Node*

Tetrahedron: Asymmetry 17 (2006) 1655

$$[\alpha]_D^{25} = +149 \text{ (c 0.98, CHCl}_3\text{)}$$

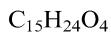
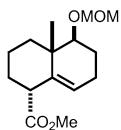


(+)-Methyl (4*a**R*,5*S*)-5-methoxymethyl-4*a*-methyl-2,3,4,4*a*,5,6,7,8-octahydronaphthalene-1-carboxylate

Takahiro Katoh, Shinsuke Mizumoto, Masato Fudesaka,
Masatoshi Takeo, Tetsuya Kajimoto and Manabu Node*

Tetrahedron: Asymmetry 17 (2006) 1655

$$[\alpha]_D^{22} = -88.7 \text{ (c 0.87, CHCl}_3\text{)}$$

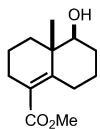


(*-*)-Methyl (2*R*,4*aR*,5*S*)-5-methoxymethyl-4*a*-methyl-1,2,3,4,4*a*,5,6,7-octahydronaphthalene-1-carboxylate

Takahiro Katoh, Shinsuke Mizumoto, Masato Fudesaka,
Masatoshi Takeo, Tetsuya Kajimoto and Manabu Node*

Tetrahedron: Asymmetry 17 (2006) 1655

$$[\alpha]_D^{25} = +162 \text{ (c 0.44, CHCl}_3\text{)}$$

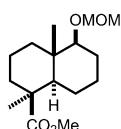


(*+*)-Methyl (4*aR*,5*S*)-5-hydroxy-4*a*-methyl-2,3,4,4*a*,5,6,7,8-octahydronaphthalene-1-carboxylate

Takahiro Katoh, Shinsuke Mizumoto, Masato Fudesaka,
Masatoshi Takeo, Tetsuya Kajimoto and Manabu Node*

Tetrahedron: Asymmetry 17 (2006) 1655

$$[\alpha]_D^{25} = +27.6 \text{ (c 2.02, CHCl}_3\text{)}$$

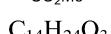
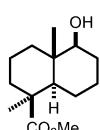


(*+*)-Methyl (2*S*,4*aR*,5*S*,8*aR*)-5-methoxymethyl-1,4*a*-dimethyldecahydronaphthalene-1-carboxylate

Takahiro Katoh, Shinsuke Mizumoto, Masato Fudesaka,
Masatoshi Takeo, Tetsuya Kajimoto and Manabu Node*

Tetrahedron: Asymmetry 17 (2006) 1655

$$[\alpha]_D^{25} = +20.2 \text{ (c 2.27, CHCl}_3\text{)}$$

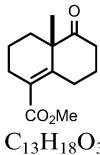


(*+*)-Methyl (2*S*,4*aR*,5*S*,8*aR*)-5-hydroxyl-1,4*a*-dimethyldecahydronaphthalene-1-carboxylate

Takahiro Katoh, Shinsuke Mizumoto, Masato Fudesaka,
Masatoshi Takeo, Tetsuya Kajimoto and Manabu Node*

Tetrahedron: Asymmetry 17 (2006) 1655

$$[\alpha]_D^{23} = +177 \text{ (c 0.98, CHCl}_3\text{)}$$

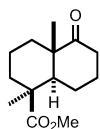


Methyl (4a*R*)-4a-methyl-5-oxo-2,3,4,4a,5,6,7,8-octahydronaphthalene-1-carboxylate

Takahiro Katoh, Shinsuke Mizumoto, Masato Fudesaka,
Masatoshi Takeo, Tetsuya Kajimoto and Manabu Node*

Tetrahedron: Asymmetry 17 (2006) 1655

$$[\alpha]_D^{25} = -35.0 \text{ (c 0.82, CHCl}_3\text{)}$$



(*-*)-Methyl (2*S*,4*aR*,8*aR*)-1,4*a*-dimethyl-5-oxodecahydronaphthalene-1-carboxylate

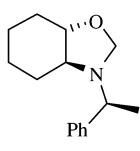
Virginia M. Mastranzo, Ericka Santacruz, Gabriela Huelgas, Evelyn Paz,
Martha V. Sosa-Rivadeneyra, Sylvain Bernès, Eusebio Juaristi,*
Leticia Quintero* and Cecilia Anaya de Parrodi*

Tetrahedron: Asymmetry 17 (2006) 1663

$$[\alpha]_D = +39.8 \text{ (c 1, CHCl}_3\text{)}$$

Source of chirality: (*S*)- α -phenylethylamine

Absolute configuration: (3a*S*,7a*S*,1'S)



(3a*S*,7a*S*)-3-*N*-[(*S*)- α -phenylethyl]-octahydrobenzo[*d*]oxazole

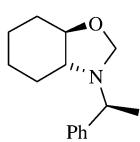
Virginia M. Mastranzo, Ericka Santacruz, Gabriela Huelgas, Evelyn Paz,
Martha V. Sosa-Rivadeneyra, Sylvain Bernès, Eusebio Juaristi,*
Leticia Quintero* and Cecilia Anaya de Parrodi*

Tetrahedron: Asymmetry 17 (2006) 1663

$$[\alpha]_D = +23.8 \text{ (c 1, CHCl}_3\text{)}$$

Source of chirality: (*S*)- α -phenylethylamine

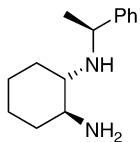
Absolute configuration: (3a*R*,7a*R*,1'S)



(3a*R*,7a*R*)-3-*N*-[(*S*)- α -phenylethyl]-octahydrobenzo[*d*]oxazole

Virginia M. Mastranzo, Ericka Santacruz, Gabriela Huelgas, Evelyn Paz,
Martha V. Sosa-Rivadeneyra, Sylvain Bernès, Eusebio Juaristi,*
Leticia Quintero* and Cecilia Anaya de Parrodi*

Tetrahedron: Asymmetry 17 (2006) 1663



C₁₄H₂₂N₂
(1S,2S)-N-[(S)- α -Phenylethyl]cyclohexane-1,2-diamine

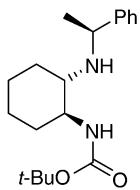
[α]_D = +28.5 (c 1, CHCl₃)

Source of chirality: (S)- α -phenylethylamine

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

Virginia M. Mastranzo, Ericka Santacruz, Gabriela Huelgas, Evelyn Paz,
Martha V. Sosa-Rivadeneyra, Sylvain Bernès, Eusebio Juaristi,*
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Tetrahedron: Asymmetry 17 (2006) 1663



C₁₉H₃₀N₂O₂
tert-Butyl (1S,2S)-2-N-[(S)- α -phenylethylamino]cyclohexylcarbamate

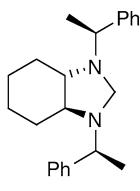
[α]_D = -17.5 (c 1, CHCl₃)

Source of chirality: (S)- α -phenylethylamine

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

Virginia M. Mastranzo, Ericka Santacruz, Gabriela Huelgas, Evelyn Paz,
Martha V. Sosa-Rivadeneyra, Sylvain Bernès, Eusebio Juaristi,*
Leticia Quintero* and Cecilia Anaya de Parrodi*

Tetrahedron: Asymmetry 17 (2006) 1663



C₂₃H₃₀N₂
(3aS,7aS)-1,3-Bis[(S)- α -phenylethyl]-octahydro-1H-benzo[d]imidazole

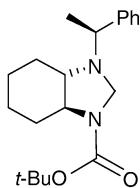
[α]_D = +15.8 (c 1, CHCl₃)

Source of chirality: (S)- α -phenylethylamine

Absolute configuration: (3aS,7aS,1'S,1"S)

Virginia M. Mastranzo, Ericka Santacruz, Gabriela Huelgas, Evelyn Paz,
Martha V. Sosa-Rivadeneyra, Sylvain Bernès, Eusebio Juaristi,*
Leticia Quintero* and Cecilia Anaya de Parrodi*

Tetrahedron: Asymmetry 17 (2006) 1663



C₂₀H₃₀N₂O₂
(3aS,7aS)-tert-Butyl 3-[(S)- α -phenylethyl]-octahydrobenzo[d]imidazole-1-carboxylate

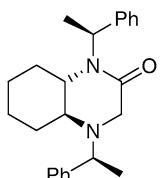
[α]_D = +96.1 (c 1, CHCl₃)

Source of chirality: (S)- α -phenylethylamine

Absolute configuration: (3aS,7aS,1'S)

Virginia M. Mastranzo, Ericka Santacruz, Gabriela Huelgas, Evelyn Paz,
Martha V. Sosa-Rivadeneyra, Sylvain Bernès, Eusebio Juaristi,*
Leticia Quintero* and Cecilia Anaya de Parrodi*

Tetrahedron: Asymmetry 17 (2006) 1663



C₂₄H₃₀N₂O

(4aS,8aS)-*N,N'*-1,4-Bis[(*S*)- α -phenylethyl]-octahydroquinoxalin-2(*1H*)-one

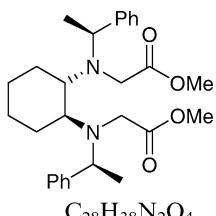
[α]_D = +5.0 (*c* 1, CHCl₃)

Source of chirality: (*S*)- α -phenylethylamine

Absolute configuration: (4a*S*,8a*S*,1'*S*,1''*S*)

Virginia M. Mastranzo, Ericka Santacruz, Gabriela Huelgas, Evelyn Paz,
Martha V. Sosa-Rivadeneyra, Sylvain Bernès, Eusebio Juaristi,*
Leticia Quintero* and Cecilia Anaya de Parrodi*

Tetrahedron: Asymmetry 17 (2006) 1663



C₂₈H₃₈N₂O₄

(1*S*,2*S*)-*N,N'*-Bis-[(*S*)- α -phenylethyl]-*N,N'*-bis-(methylacetate)-1,2-cyclohexanediamine

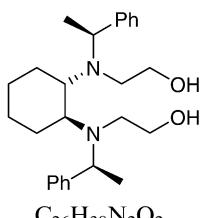
[α]_D = +20.5 (*c* 1, CHCl₃)

Source of chirality: (*S*)- α -phenylethylamine

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

Virginia M. Mastranzo, Ericka Santacruz, Gabriela Huelgas, Evelyn Paz,
Martha V. Sosa-Rivadeneyra, Sylvain Bernès, Eusebio Juaristi,*
Leticia Quintero* and Cecilia Anaya de Parrodi*

Tetrahedron: Asymmetry 17 (2006) 1663



C₂₆H₃₈N₂O₂

(1*S*,2*S*)-*N,N'*-Bis-[(*S*)- α -phenylethyl]-bis(2-hydroxyethyl)-1,2-cyclohexanediamine

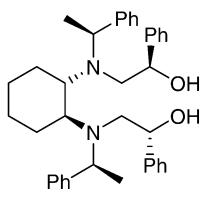
[α]_D = +47.0 (*c* 1, CHCl₃)

Source of chirality: (*S*)- α -phenylethylamine

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

Virginia M. Mastranzo, Ericka Santacruz, Gabriela Huelgas, Evelyn Paz,
Martha V. Sosa-Rivadeneyra, Sylvain Bernès, Eusebio Juaristi,*
Leticia Quintero* and Cecilia Anaya de Parrodi*

Tetrahedron: Asymmetry 17 (2006) 1663



C₃₈H₄₆N₂O₂

(1*S*,2*S*)-*N,N'*-Bis-[(*S*)- α -phenylethyl]-bis[(*R*)-2-hydroxyphenethyl]-1,2-cyclohexanediamine

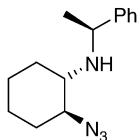
[α]_D = -0.7 (*c* 1, CHCl₃)

Source of chirality: (*S*)- α -phenylethylamine

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

Virginia M. Mastranzo, Ericka Santacruz, Gabriela Huelgas, Evelyn Paz,
Martha V. Sosa-Rivadeneyra, Sylvain Bernès, Eusebio Juaristi,*
Leticia Quintero* and Cecilia Anaya de Parrodi*

Tetrahedron: Asymmetry 17 (2006) 1663



C₁₄H₂₀N₄
(1S,2S)-2-Azido-N-[(S)-α-phenylethyl]cyclohexanamine

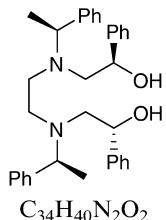
[α]_D = +23.5 (c 1, CHCl₃)

Source of chirality: (S)-α-phenylethylamine

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

Virginia M. Mastranzo, Ericka Santacruz, Gabriela Huelgas, Evelyn Paz,
Martha V. Sosa-Rivadeneyra, Sylvain Bernès, Eusebio Juaristi,*
Leticia Quintero* and Cecilia Anaya de Parrodi*

Tetrahedron: Asymmetry 17 (2006) 1663



C₃₄H₄₀N₂O₂
N,N'-Bis[(S)-α-phenylethyl]-bis[(R)-hydroxyphenethyl]-1,2-ethylenediamine

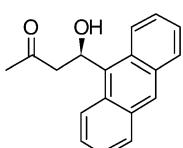
[α]_D = -47.2 (c 1.10, CHCl₃)

Source of chirality: (S)-α-phenylethylamine

Absolute configuration: (1'S,1"S,2'R,2"R)

Yan Zhou and Zixing Shan*

Tetrahedron: Asymmetry 17 (2006) 1671



C₁₈H₁₆O₂
(4R)-Hydroxy-4-(1'-anthranyl)-butan-2-one

Ee = 86%

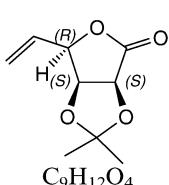
[α]_D²⁵ = -53.9 (c 0.2, CHCl₃)

Absolute configuration: R

Source of chirality: asymmetric synthesis

Geetha Banda and I. E. Chakravarthy*

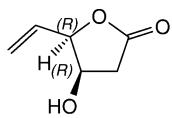
Tetrahedron: Asymmetry 17 (2006) 1684



C₉H₁₂O₄
2,2-Dimethyl-6-vinyl-dihydrofuro-[3,4-d][1,3]dioxal-4-one

[α]_D²¹ = +31.9 (c 0.8, CHCl₃)

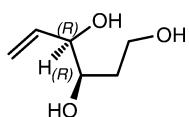
Source of chirality: D-mannose


 $[\alpha]_D^{21} = +21.5$ (*c* 1.0, CHCl₃)

Source of chirality: D-mannose



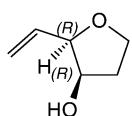
4-Hydroxy-5-vinyl-dihydro-furan-2-one


 $[\alpha]_D^{21} = +9.1$ (*c* 0.5, D₂O)

Source of chirality: D-mannose



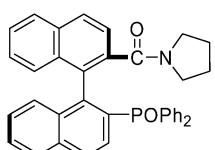
Hex-5-ene-1,3,4-triol


 $[\alpha]_D^{21} = +26.1$ (*c* 0.85, CHCl₃)

Source of chirality: D-mannose



2-Vinyl-tetrahydro-furan-3-ol



Ee = 100%

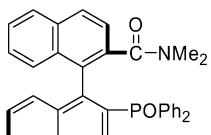
 $[\alpha]_D^{25} = +170.0$ (*c* 1.00, THF)

Source of chirality: (R)-binol

Absolute configuration: (R)



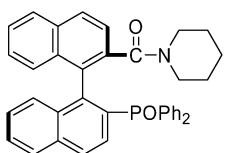
(R)-2-(Pyrrolidine-1-carbonyl)-2'-diphenylphosphinyl-1,1'-binaphthyl



C₃₅H₂₈NO₂P

(R)-2-(N,N-Dimethylcarbonyl)-2'-diphenylphosphinyl-1,1'-binaphthyl

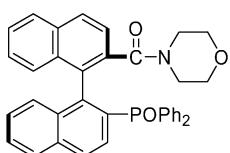
Ee = 100%
[α]_D²⁵ = +192.8 (c 1.00, THF)
Source of chirality: (R)-binol
Absolute configuration: (R)



C₃₈H₃₂NO₂P

(R)-2-(Piperidinedine-1-carbonyl)-2'-diphenylphosphinyl-1,1'-binaphthyl

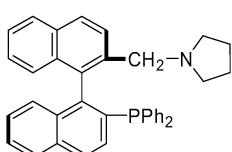
Ee = 100%
[α]_D²⁵ = +203.1 (c 1.00, THF)
Source of chirality: (R)-binol
Absolute configuration: (R)



C₃₇H₃₀NO₃P

(R)-2-(Morpholine-4-carbonyl)-2'-diphenylphosphinyl-1,1'-binaphthyl

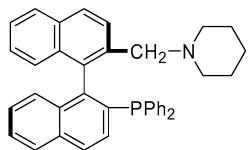
Ee = 100%
[α]_D²⁵ = +179.1 (c 1.00, THF)
Source of chirality: (R)-binol
Absolute configuration: (R)



C₃₇H₃₂NP

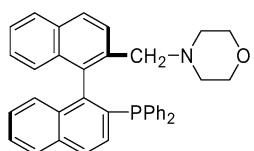
(R)-2-(Pyrrolidinylmethyl)-2'-diphenylphosphino-1,1'-binaphthyl

Ee = 100%
[α]_D²⁵ = +62.0 (c 1.00, CHCl₃)
Source of chirality: (R)-binol
Absolute configuration: (R)



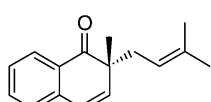
C₃₈H₃₄NP
(*R*)-2-(Piperidinomethyl)-2'-diphenylphosphino-1,1'-binaphthyl

Ee = 100%
[α]_D²⁵ = +56.3 (*c* 1.00, CHCl₃)
Source of chirality: (*R*)-binol
Absolute configuration: (*R*)



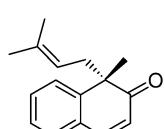
C₃₇H₃₂NOP
(*R*)-2-(Morpholinomethyl)-2'-diphenylphosphino-1,1'-binaphthyl

Ee = 100%
[α]_D²⁵ = +45.3 (*c* 1.00, CHCl₃)
Source of chirality: (*R*)-binol
Absolute configuration: (*R*)



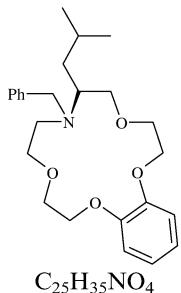
C₁₆H₁₈O
2-(*R*)-Methyl-2-(3-methyl-but-2-enyl)-2*H*-naphthalen-1-one

[α]_D²⁵ = +118.8 (*c* 1.0, EtOH)
Source of chirality: asymmetric synthesis
Absolute configuration: (2*R*)



C₁₆H₁₈O
1-(*S*)-Methyl-1-(3-methyl-but-2-enyl)-1*H*-naphthalen-2-one

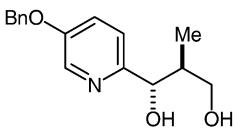
[α]_D²⁵ = +14.9 (*c* 1.0, EtOH)
Source of chirality: asymmetric synthesis
Absolute configuration: (1*S*)



(S)-2-Isobutyl-N-benzyl-4,7,10,13-tetraoxa-1-azacyclopentadec-8-ene

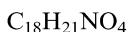
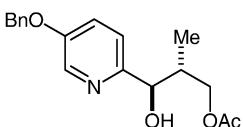
 $[\alpha]_D^{20} = -11.6$ (*c* 1.4, CHCl₃)

Source of chirality: (S)-leucinol

Absolute configuration: *S*(2*S*,3*S*)-3-[2-(5-Benzylloxypyridyl)]-2-methyl-1,3-propane diol $[\alpha]_D^{26} = -28.6$ (*c* 0.92, CHCl₃)

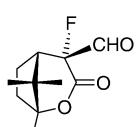
Ee = >99%

Source of chirality: lipase

Absolute configuration: (2*S*,3*S*)(2*R*,3*R*)-1-Acetoxy-3-[2-(5-benzylloxypyridyl)]-2-methyl-3-propanol $[\alpha]_D^{29} = +19.6$ (*c* 0.98, CHCl₃)

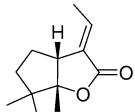
Ee = >99%

Source of chirality: lipase

Absolute configuration: (2*R*,3*R*)(1*R*,4*R*,5*S*)-4-Fluoro-1,8,8-trimethyl-3-oxo-2-oxabicyclo[3.2.1]octane-4-carbaldehyde

De = 100%

 $[\alpha]_D^{23} = -232.6$ (*c* 0.22, CHCl₃)Source of chirality: natural (1*R*)-(+)camphorAbsolute configuration: (1*R*,4*R*,5*S*)



C₁₂H₁₈O₂

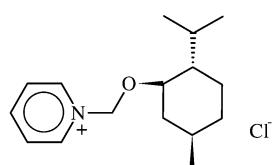
(3aR,6aS,3E)-3-Ethylidene-6,6a-trimethylhexahydro-2H-cyclopenta[b]furan-2-one

D_e = 100%

[α]_D²³ = +185.7 (c 0.28, CHCl₃)

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

Absolute configuration: (3a*R*,6a*S*,3*E*)



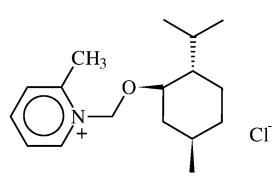
C₁₆H₂₆ClNO

1-[(1*R*,2*S*,5*R*)-(-)-Menthoxymethyl]pyridinium chloride

[α]_D²⁰ = -124.2 (c 0.9, EtOH)

Chiral pyridinium chloride

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



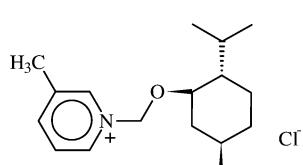
C₁₇H₂₈ClNO

1-[(1*R*,2*S*,5*R*)-(-)-Menthoxymethyl]-2-methylpyridinium chloride

[α]_D²⁰ = -99.7 (c 0.5, EtOH)

Chiral pyridinium chloride

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



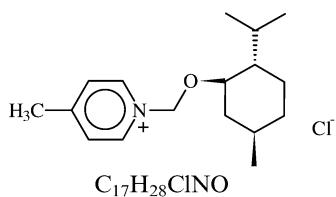
C₁₇H₂₈ClNO

1-[(1*R*,2*S*,5*R*)-(-)-Menthoxymethyl]-3-methylpyridinium chloride

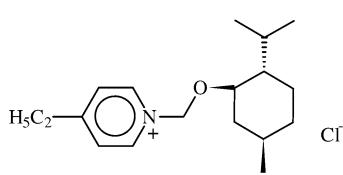
[α]_D²⁰ = -126.9 (c 0.6, EtOH)

Chiral pyridinium chloride

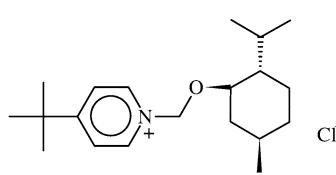
Absolute configuration: (1*R*,2*S*,5*R*)

1-[(1*R*,2*S*,5*R*)-(-)-Menthoxymethyl]-4-methylpyridinium chloride

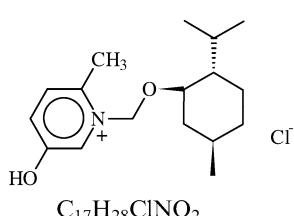
$[\alpha]_D^{20} = -117.1$ (*c* 1.3, EtOH)
Chiral pyridinium chloride
Absolute configuration: (1*R*,2*S*,5*R*)

4-Ethyl-1-[(1*R*,2*S*,5*R*)-(-)-Menthoxymethyl]pyridinium chloride

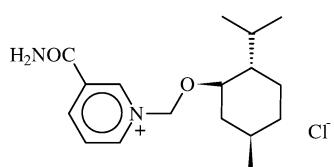
$[\alpha]_D^{20} = -124.8$ (*c* 1.0, EtOH)
Chiral pyridinium chloride
Absolute configuration: (1*R*,2*S*,5*R*)

4-*tert*-Butyl-1-[(1*R*,2*S*,5*R*)-(-)-menthoxymethyl]pyridinium chloride

$[\alpha]_D^{20} = -102.7$ (*c* 1.3, EtOH)
Chiral pyridinium chloride
Absolute configuration: (1*R*,2*S*,5*R*)

5-Hydroxy-1-[(1*R*,2*S*,5*R*)-(-)-menthoxymethyl]-2-methylpyridinium chloride

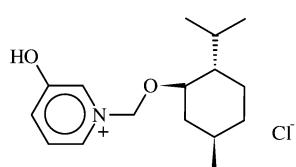
$[\alpha]_D^{20} = -120.9$ (*c* 1.1, EtOH)
Chiral pyridinium chloride
Absolute configuration: (1*R*,2*S*,5*R*)



$C_{17}H_{27}ClN_2O_2$
3-Carbamoyl-1-[(1R,2S,5R)-(-)-menthoxymethyl]pyridinium chloride

$[\alpha]_D^{20} = -122.2$ (*c* 1.0, EtOH)

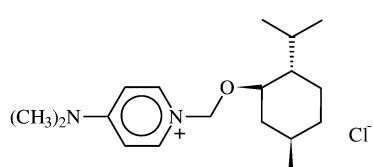
Decomposable chiral pyridinium chloride
Absolute configuration: (1*R*,2*S*,5*R*)



$C_{16}H_{26}ClNO_2$
3-Hydroxy-1-[(1*R*,2*S*,5*R*)-(-)-menthoxymethyl]pyridinium chloride

$[\alpha]_D^{20} = -147.3$ (*c* 1.0, EtOH)

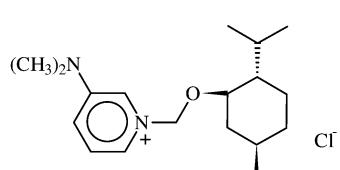
Decomposable chiral pyridinium chloride
Absolute configuration: (1*R*,2*S*,5*R*)



$C_{18}H_{31}ClN_2O$
1-[(1*R*,2*S*,5*R*)-(-)-Menthoxymethyl]-4-(dimethylamino)pyridinium chloride

$[\alpha]_D^{20} = -117.8$ (*c* 0.5, EtOH)

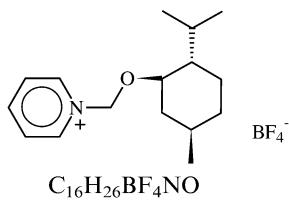
Chiral pyridinium chloride
Absolute configuration: (1*R*,2*S*,5*R*)



$C_{18}H_{31}ClN_2O$
1-[(1*R*,2*S*,5*R*)-(-)-Menthoxymethyl]-3-(dimethylamino)pyridinium chloride

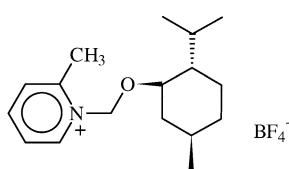
$[\alpha]_D^{20} = -154.6$ (*c* 1.0, EtOH)

Decomposable chiral pyridinium chloride
Absolute configuration: (1*R*,2*S*,5*R*)

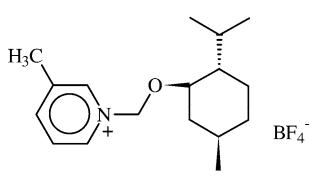


1-[(1R,2S,5R)-(-)-Menthoxymethyl]pyridinium tetrafluoroborate

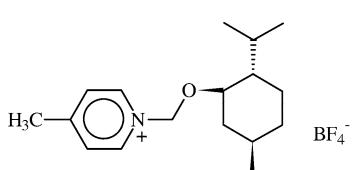
$[\alpha]_D^{20} = -116.5$ (*c* 0.7, EtOH)
Chiral pyridinium tetrafluoroborate
Absolute configuration: (1*R*,2*S*,5*R*)

1-[(1*R*,2*S*,5*R*)-(-)-Menthoxymethyl]-2-methylpyridinium tetrafluoroborate

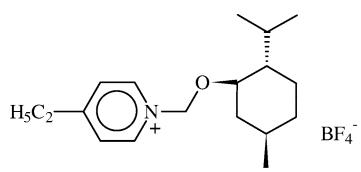
$[\alpha]_D^{20} = -116.3$ (*c* 1.0, EtOH)
Chiral pyridinium tetrafluoroborate
Absolute configuration: (1*R*,2*S*,5*R*)

1-[(1*R*,2*S*,5*R*)-(-)-Menthoxymethyl]-3-methylpyridinium tetrafluoroborate

$[\alpha]_D^{20} = -116.9$ (*c* 1.0, EtOH)
Chiral pyridinium tetrafluoroborate
Absolute configuration: (1*R*,2*S*,5*R*)

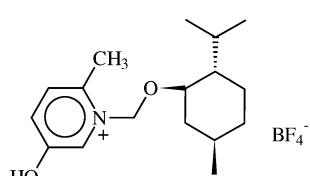
1-[(1*R*,2*S*,5*R*)-(-)-Menthoxymethyl]-4-methylpyridinium tetrafluoroborate

$[\alpha]_D^{20} = -109.9$ (*c* 0.7, EtOH)
Chiral pyridinium tetrafluoroborate
Absolute configuration: (1*R*,2*S*,5*R*)



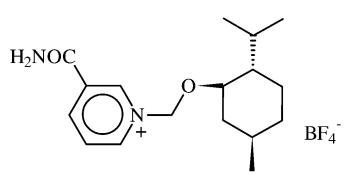
$C_{18}H_{30}BF_4NO$
4-Ethyl-1-[(1R,2S,5R)-(-)-menthoxymethyl]pyridinium tetrafluoroborate

$[\alpha]_D^{20} = -112.2$ (*c* 1.1, EtOH)
Chiral pyridinium tetrafluoroborate
Absolute configuration: (1*R*,2*S*,5*R*)



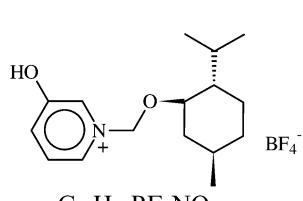
$C_{17}H_{28}BF_4NO_2$
5-Hydroxy-1-[(1*R*,2*S*,5*R*)-(-)-menthoxymethyl]-2-methylpyridinium tetrafluoroborate

$[\alpha]_D^{20} = -108.9$ (*c* 1.0, EtOH)
Chiral pyridinium tetrafluoroborate
Absolute configuration: (1*R*,2*S*,5*R*)



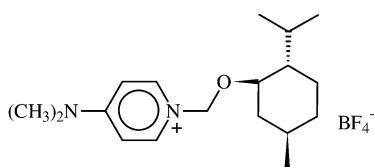
$C_{17}H_{27}BF_4N_2O_2$
3-Carbamoyl-1-[(1*R*,2*S*,5*R*)-(-)-menthoxymethyl]pyridinium tetrafluoroborate

$[\alpha]_D^{20} = -111.9$ (*c* 1.0, EtOH)
Chiral pyridinium tetrafluoroborate
Absolute configuration: (1*R*,2*S*,5*R*)



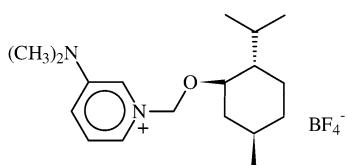
$C_{16}H_{26}BF_4NO_2$
3-Hydroxy-1-[(1*R*,2*S*,5*R*)-(-)-menthoxymethyl]pyridinium tetrafluoroborate

$[\alpha]_D^{20} = -114.8$ (*c* 1.0, EtOH)
Chiral pyridinium tetrafluoroborate
Absolute configuration: (1*R*,2*S*,5*R*)



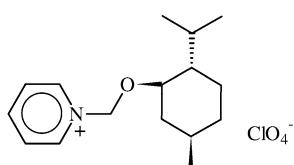
$C_{18}H_{31}BF_4N_2O$
1-[(1R,2S,5R)-(-)-Menthoxymethyl]-4-(dimethylamino)pyridinium tetrafluoroborate

$[\alpha]_D^{20} = -112.6$ (*c* 1.0, EtOH)
Chiral pyridinium tetrafluoroborate
Absolute configuration: (1*R*,2*S*,5*R*)



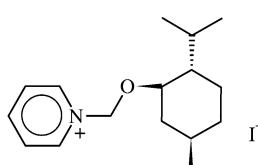
$C_{18}H_{31}BF_4N_2O$
1-[(1*R*,2*S*,5*R*)-(-)-Menthoxymethyl]-3-(dimethylamino)pyridinium tetrafluoroborate

$[\alpha]_D^{20} = -139.4$ (*c* 0.5, EtOH)
Chiral pyridinium tetrafluoroborate
Absolute configuration: (1*R*,2*S*,5*R*)



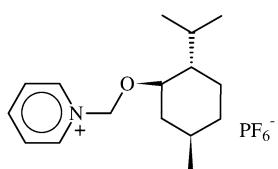
$C_{16}H_{26}ClNO_5$
1-[(1*R*,2*S*,5*R*)-(-)-Menthoxymethyl]pyridinium perchlorate

$[\alpha]_D^{20} = -110.9$ (*c* 0.6, EtOH)
Chiral pyridinium perchlorate
Absolute configuration: (1*R*,2*S*,5*R*)



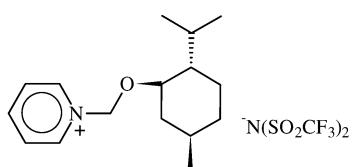
$C_{16}H_{26}INO$
1-[(1*R*,2*S*,5*R*)-(-)-Menthoxymethyl]pyridinium iodide

$[\alpha]_D^{20} = -50.9$ (*c* 0.8, EtOH)
Chiral pyridinium iodide
Absolute configuration: (1*R*,2*S*,5*R*)



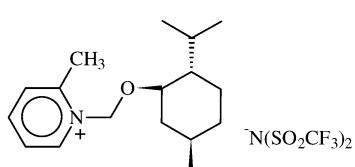
$C_{16}H_{26}F_6NOP$
1-[(1R,2S,5R)-(-)-Menthoxymethyl]pyridinium hexafluorophosphate

$[\alpha]_D^{20} = -97.6$ (*c* 1.0, EtOH)
Chiral pyridinium hexafluorophosphate
Absolute configuration: (1*R*,2*S*,5*R*)



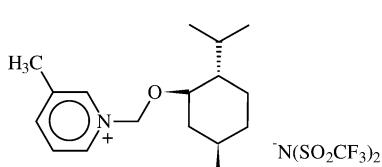
$C_{18}H_{26}F_6N_2O_5S_2$
1-[(1R,2S,5R)-(-)-Menthoxymethyl]pyridinium bis(trifluoromethanesulfonyl)imide

$[\alpha]_D^{20} = -70.9$ (*c* 1.4, EtOH)
Chiral ionic liquid
Absolute configuration: (1*R*,2*S*,5*R*)



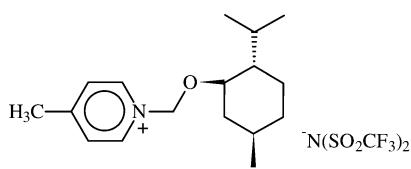
$C_{19}H_{28}F_6N_2O_5S_2$
1-[(1R,2S,5R)-(-)-Menthoxymethyl]-2-methylpyridinium bis(trifluoromethanesulfonyl)imide

$[\alpha]_D^{20} = -77.2$ (*c* 1.1, EtOH)
Chiral ionic liquid
Absolute configuration: (1*R*,2*S*,5*R*)



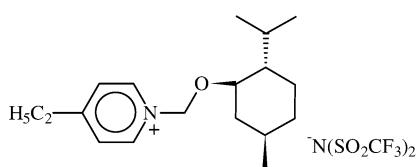
$C_{19}H_{28}F_6N_2O_5S_2$
1-[(1R,2S,5R)-(-)-Menthoxymethyl]-3-methylpyridinium bis(trifluoromethanesulfonyl)imide

$[\alpha]_D^{20} = -70.3$ (*c* 1.3, EtOH)
Chiral ionic liquid
Absolute configuration: (1*R*,2*S*,5*R*)



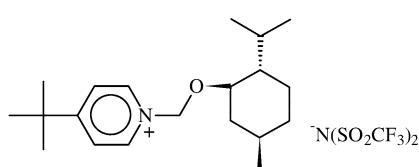
$C_{19}H_{28}F_6N_2O_5S_2$
1-[(1R,2S,5R)-(-)-Menthoxymethyl]-4-methylpyridinium bis(trifluoromethanesulfonyl)imide

$[\alpha]_D^{20} = -71.2$ (*c* 1.0, EtOH)
Chiral ionic liquid
Absolute configuration: (1*R*,2*S*,5*R*)



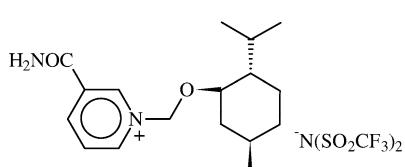
$C_{20}H_{30}F_6N_2O_5S_2$
4-Ethyl-1-[(1*R*,2*S*,5*R*)-(-)-menthoxymethyl]pyridinium bis(trifluoromethanesulfonyl)imide

$[\alpha]_D^{20} = -69.7$ (*c* 0.5, EtOH)
Chiral ionic liquid
Absolute configuration: (1*R*,2*S*,5*R*)



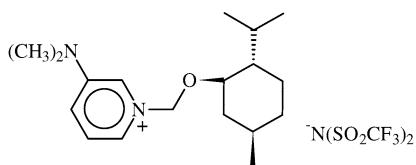
$C_{22}H_{34}F_6N_2O_5S_2$
4-*tert*-Butyl-1-[(1*R*,2*S*,5*R*)-(-)-menthoxymethyl]pyridinium bis(trifluoromethanesulfonyl)imide

$[\alpha]_D^{20} = -70.4$ (*c* 1.6, EtOH)
Chiral ionic liquid
Absolute configuration: (1*R*,2*S*,5*R*)



$C_{19}H_{27}F_6N_3O_6S_2$
3-Carbamoyl-1-[(1*R*,2*S*,5*R*)-(-)-menthoxymethyl]pyridinium bis(trifluoromethanesulfonyl)imide

$[\alpha]_D^{20} = -75.4$ (*c* 1.2, EtOH)
Chiral ionic liquid
Absolute configuration: (1*R*,2*S*,5*R*)



$C_{20}H_{31}F_6N_3O_5S_2$
1-[(1*R*,2*S*,5*R*)-(-)-Menthoxymethyl]-3-(dimethylamino)pyridinium bis(trifluoromethanesulfonyl)imide

$[\alpha]_D^{20} = -92.5$ (*c* 0.85, EtOH)

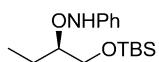
Chiral ionic liquid

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

$[\alpha]_D^{25} = +42.35$ (*c* 1, CHCl₃)

Source of chirality: α -aminoxylation

Absolute configuration: *R*

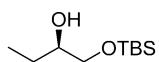


$C_{16}H_{29}NO_2Si$
(*R*)-2-*N*-Phenylaminoxy(tert-butyl)dimethylsilane

$[\alpha]_D^{25} = -9.4$ (*c* 1, CHCl₃)

Source of chirality: α -aminoxylation

Absolute configuration: *R*

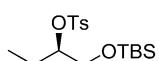


$C_{10}H_{24}O_2Si$
((*R*)-2-Hydroxy)(tert-butyl)dimethylsilane

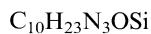
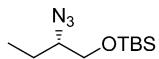
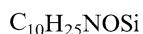
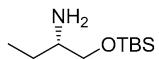
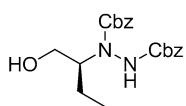
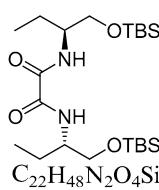
$[\alpha]_D^{25} = +17.0$ (*c* 1, CHCl₃)

Source of chirality: α -aminoxylation

Absolute configuration: *R*



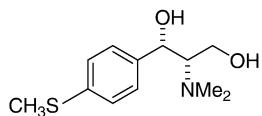
$C_{17}H_{30}O_4SSi$
(*R*)-1-(tert-Butyldimethylsilyloxybutan-3-yl) 4-methylbenzenesulfonate

$[\alpha]_D^{25} = +21.9$ (*c* 1, CHCl₃)
Source of chirality: α -aminooxylationAbsolute configuration: *S**((S)-2-Azidobutoxy)(tert-butyl)dimethylsilane*
 $[\alpha]_D^{25} = +9.1$ (*c* 1, CHCl₃)
Source of chirality: α -aminooxylationAbsolute configuration: *S**((S)-2-Aminobutoxy)(tert-butyl)dimethylsilane*
 $[\alpha]_D^{25} = +14.3$ (*c* 1, CHCl₃)
Source of chirality: α -aminationAbsolute configuration: *S**(S)-2-(1,2-Dibenzoyloxycarbonylhydrazinyl)-1-butanol*
 $[\alpha]_D^{25} = -60.3$ (*c* 1, CHCl₃)
Source of chirality: α -aminationAbsolute configuration: *S,S**(S,S)-N¹,N²-Bis(1-tert-butyldimethylsilyloxybutan-3-yl)oxamide*

$[\alpha]_D = +35.6$ (*c* 1.0, MeOH)

Source of chirality: (+)-thiomicamine

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

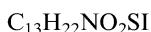
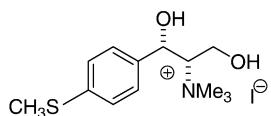


(1*S*,2*S*)-2-Dimethylamino-1-(4-methylthiophenyl)-1,3-propanediol

$[\alpha]_D = +46.1$ (*c* 0.98, MeOH)

Source of chirality: (+)-thiomicamine

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

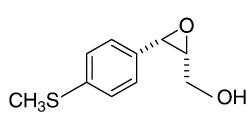


(1*S*,2*S*)-2-Dimethylamino-1-(4-methylthiophenyl)-1,3-propanediol methiodide

$[\alpha]_D = +41.6$ (*c* 0.97, MeOH)

Source of chirality: (+)-thiomicamine

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

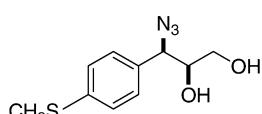


(2*R*,3*S*)-2,3-Epoxy-3-(4-methylthiophenyl)-1-propanol

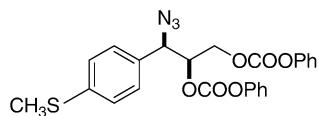
$[\alpha]_D = -200.2$ (*c* 0.98, MeOH)

Source of chirality: (+)-thiomicamine

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



(2*S*,3*R*)-3-Azido-3-(4-methylthiophenyl)-1,2-propanediol

 $C_{24}H_{21}N_3O_6S$

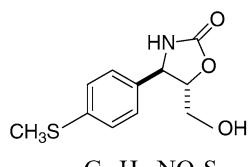
(2S,3R)-3-Azido-1,2-diphenyloxycarbonyloxy-3-(4-methylthiophenyl)-propane

 $[\alpha]_D = -44.7$ (*c* 0.86, MeOH)

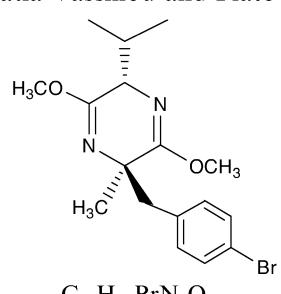
Source of chirality: (+)-thiomicamine

Absolute configuration: (2*S*,3*R*) $C_{18}H_{17}NO_5S$ (4*R*,5*S*)-4-(4-Methylthiophenyl)-5-phenyloxycarbonyloxy-2-oxazolidinone $[\alpha]_D = +72.2$ (*c* 0.64, MeOH)

Source of chirality: (+)-thiomicamine

Absolute configuration: (4*R*,5*S*) $C_{11}H_{13}NO_3S$ (4*R*,5*S*)-5-Hydroxymethyl-4-(4-methylthiophenyl)-2-oxazolidinone $[\alpha]_D = +31.9$ (*c* 0.9, MeOH)

Source of chirality: (+)-thiomicamine

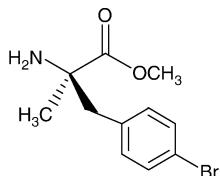
Absolute configuration: (4*R*,5*S*) $C_{17}H_{22}BrN_2O_2$ (3*R*,6*S*)-3-(4-Bromobenzyl)-6-isopropyl-5-methoxy-3-methyl-3,6-dihydro-2-pyrazinyl methyl ether

Ee = 100%

 $[\alpha]_D^{25} = -70.0$ (*c* 1, CH_2Cl_2)

Source of chirality: asymmetric synthesis

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

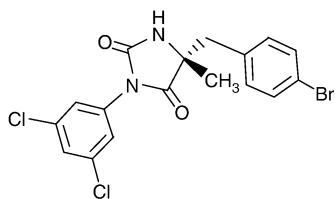


$C_{11}H_{14}BrNO_2$
Methyl (2*R*)-2-amino-3-(4-bromophenyl)-2-methylpropanoate

Ee = >99%

 $[\alpha]_D^{25} = +16.7$ (*c* 1, CH₂Cl₂)

Source of chirality: asymmetric synthesis

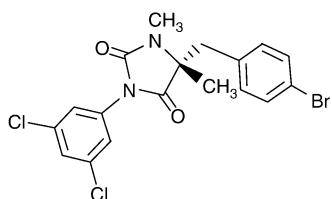
Absolute configuration: 2*R*

$C_{17}H_{13}BrCl_2N_2O_2$
(5*R*)-5-(4-Bromobenzyl)-3-(3,5-dichlorophenyl)-5-methyl-1*H*-imidazole-2,4(3*H*,5*H*)-dione

Ee = >99%

 $[\alpha]_D^{25} = +121.4$ (*c* 1, CH₂Cl₂)

Source of chirality: asymmetric synthesis

Absolute configuration: 5*R*

$C_{18}H_{15}BrCl_2N_2O_2$
(5*R*)-5-(4-Bromobenzyl)-3-(3,5-dichlorophenyl)-1,5-dimethyl-1*H*-imidazole-2,4(3*H*,5*H*)-dione

Ee = >99%

 $[\alpha]_D^{25} = +127.1$ (*c* 1, EtOH)

Source of chirality: asymmetric synthesis

Absolute configuration: 5*R*