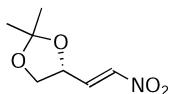


Stereochemistry abstracts

Fernando Fernández, José M. Otero, Juan C. Estévez
and Ramón J. Estévez*

Tetrahedron: Asymmetry 17 (2006) 3063



$C_7H_{11}NO_4$
(4*R*)-2,2-Dimethyl-4-((*E*)-2-nitrovinyl)-1,3-dioxolane

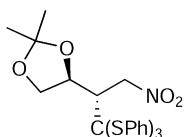
$[\alpha]_D^{27} = -37.8$ (*c* 1.05, CHCl₃)

Source of asymmetry: L-ascorbic acid

Absolute configuration: (4*R*)

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Tetrahedron: Asymmetry 17 (2006) 3063



$C_{26}H_{27}NO_4S_3$
(4*S*)-2,2-Dimethyl-4-((2'*S*)-3'-nitro-1',1',1'-tris(phenylthio)propan-2'-yl)-1,3-dioxolane

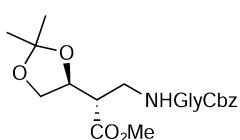
$[\alpha]_D^{27} = -44.5$ (*c* 1.05, CHCl₃)

Source of asymmetry: D-mannitol

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

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Tetrahedron: Asymmetry 17 (2006) 3063



$C_{19}H_{26}N_2O_7$
Methyl (2*S*)-2-((4'S)-2',2'-dimethyl-1',3'-dioxolan-4'-yl)-3-((*N*-(benzyloxycarbonyl)glycyl)amino)propanoate

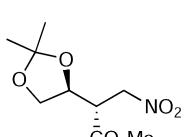
$[\alpha]_D^{27} = -14.7$ (*c* 1.20, CHCl₃)

Source of asymmetry: D-mannitol

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

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Tetrahedron: Asymmetry 17 (2006) 3063

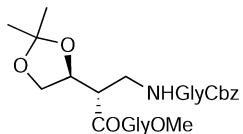


$C_9H_{15}NO_6$
(2*S*)-Methyl 2-((4'S)-2',2'-dimethyl-1',3'-dioxolan-4'-yl)-3-nitropropanoate

$[\alpha]_D^{26} = -23.2$ (*c* 1.23, CHCl₃)

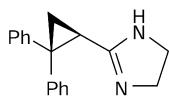
Source of asymmetry: D-mannitol

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



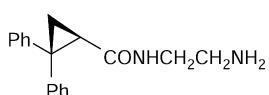
$[\alpha]_D^{27} = -15.8$ (*c* 2.30, CHCl₃)
Source of asymmetry: D-mannitol
Absolute configuration: (2*S*,4'*S*)

C₂₁H₂₉N₃O₈
Methyl *N*-(*(2S)*-2-((4'*S*)-2',2'-dimethyl-1',3'-dioxolan-4'-yl)-3-((*N*-(methoxycarbonyl)glycyl)amino)propanoyl)glycinate



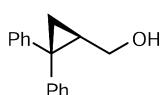
Ee = 76%
 $[\alpha]_D^{24} = +30.1$ (*c* 1.12, MeOH)
Source of chirality: catalytic enantioselective cyclopropanation
Absolute configuration: (*R*)

C₁₈H₁₈N₂
4,5-Dihydro-2-((*R*)-2,2-diphenylcyclopropyl)-1*H*-imidazole



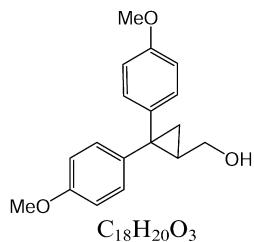
Ee = 76%
 $[\alpha]_D^{24} = +102.8$ (*c* 1.03, MeOH)
Source of chirality: catalytic enantioselective cyclopropanation
Absolute configuration: (*R*)

C₁₈H₂₀N₂O
(*R*)-*N*-(2-Aminoethyl)-2,2-diphenylcyclopropanecarboxamide



Ee = 76%
 $[\alpha]_D^{24} = +115.9$ (*c* 1.07, CHCl₃)
Source of chirality: catalytic enantioselective cyclopropanation
Absolute configuration: (*R*)

C₁₆H₁₆O
(*R*)-2,2-Diphenylcyclopropylmethanol



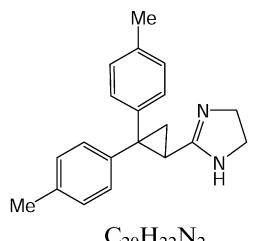
2,2-Bis(4-methoxyphenyl)cyclopropylmethanol

Ee = 48%

 $[\alpha]_D^{24} = +60.4$ (*c* 1.41, CHCl₃)

Source of chirality: catalytic enantioselective cyclopropanation

Absolute configuration: unknown

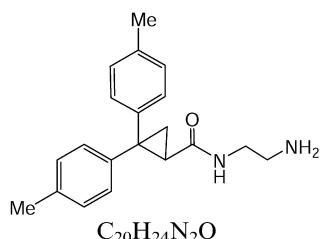
4,5-Dihydro-2-(2,2-di-*p*-tolylcyclopropyl)-1*H*-imidazole

Ee = 67%

 $[\alpha]_D^{23} = +25.6$ (*c* 0.64, MeOH)

Source of chirality: catalytic enantioselective cyclopropanation

Absolute configuration: unknown

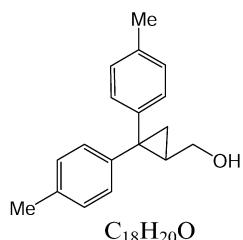
*N*-(2-Aminoethyl)-2,2-di-*p*-tolylcyclopropanecarboxamide

Ee = 67%

 $[\alpha]_D^{24} = +23.9$ (*c* 1.38, MeOH)

Source of chirality: catalytic enantioselective cyclopropanation

Absolute configuration: unknown

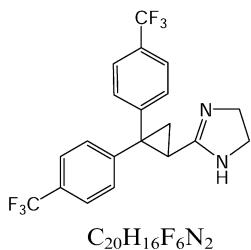
2,2-Di-*p*-tolylcyclopropylmethanol

Ee = 67%

 $[\alpha]_D^{24} = +95.4$ (*c* 1.33, CHCl₃)

Source of chirality: catalytic enantioselective cyclopropanation

Absolute configuration: unknown

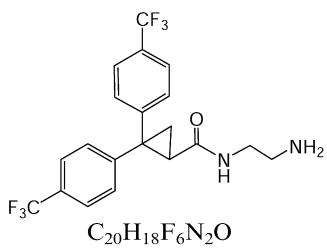
2-(2,2-Bis(4-(trifluoromethyl)phenyl)cyclopropyl)-4,5-dihydro-1*H*-imidazole

Ee = 20%

 $[\alpha]_D^{23} = +21.6$ (*c* 0.75, MeOH)

Source of chirality: catalytic enantioselective cyclopropanation

Absolute configuration: unknown



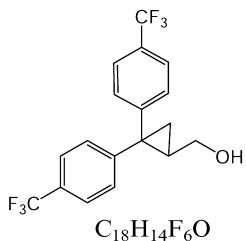
N-(2-Aminoethyl)-2,2-bis(4-(trifluoromethyl)phenyl)cyclopropanecarboxamide

Ee = 20%

 $[\alpha]_D^{21} = +19.2$ (*c* 1.27, MeOH)

Source of chirality: catalytic enantioselective cyclopropanation

Absolute configuration: unknown



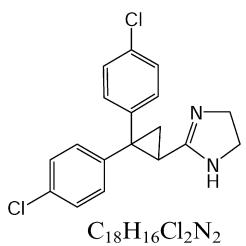
2,2-Bis(4-(trifluoromethyl)phenyl)cyclopropylmethanol

Ee = 20%

 $[\alpha]_D^{23} = +13.4$ (*c* 1.29, CHCl₃)

Source of chirality: catalytic enantioselective cyclopropanation

Absolute configuration: unknown

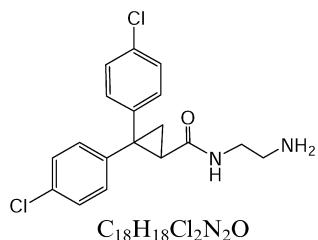
2-(2,2-Bis(4-chlorophenyl)cyclopropyl)-4,5-dihydro-1*H*-imidazole

Ee = 29%

 $[\alpha]_D^{23} = +3.3$ (*c* 0.67, MeOH)

Source of chirality: catalytic enantioselective cyclopropanation

Absolute configuration: unknown

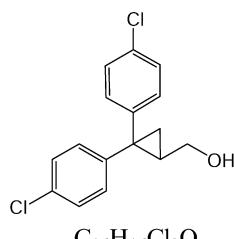
*N*-(2-Aminoethyl)-2,2-bis(4-chlorophenyl)cyclopropanecarboxamide

Ee = 29%

 $[\alpha]_D^{23} = +38.7$ (*c* 1.39, MeOH)

Source of chirality: catalytic enantioselective cyclopropanation

Absolute configuration: unknown



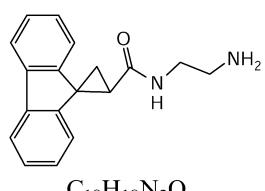
2,2-Bis(4-chlorophenyl)cyclopropylmethanol

Ee = 29%

 $[\alpha]_D^{23} = +30.6$ (*c* 1.58, CHCl₃)

Source of chirality: catalytic enantioselective cyclopropanation

Absolute configuration: unknown

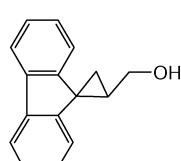
*N*-(2-Aminoethyl)-2,2-biphenylenecyclopropanecarboxamide

Ee = 51%

 $[\alpha]_D^{23} = +97.4$ (*c* 1.63, MeOH)

Source of chirality: catalytic enantioselective cyclopropanation

Absolute configuration: unknown



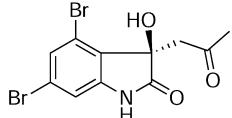
2,2-Biphenylenecyclopropylcarbinol

Ee = 51%

 $[\alpha]_D^{24} = +9.4$ (*c* 1.41, CHCl₃)

Source of chirality: catalytic enantioselective cyclopropanation

Absolute configuration: unknown



(3*R*)-4,6-Dibromo-3-hydroxy-3-(2-oxopropyl)-1,3-dihydroindol-2-one ((+)-convolutamydine A)

[α]_D²⁰ = +48.2 (c 0.20, MeOH)

Source of chirality: (−)-(1*R*,2*S*,5*R*)-8-phenylmenthol

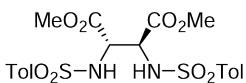
Absolute configuration: (3*R*)

Ee = 100%

[α]_D²⁵ = +123 (c 0.23, CHCl₃)

Source of chirality: L-aspartic acid

Absolute configuration: (S,S)



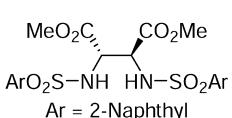
Dimethyl (S,S)-2,3-bis(4-methylphenylsulfonamido)succinate

Ee = 100%

[α]_D²⁵ = +138 (c 0.26, CHCl₃)

Source of chirality: L-aspartic acid

Absolute configuration: (S,S)



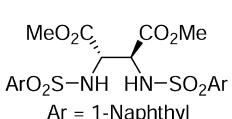
Dimethyl (S,S)-2,3-bis(naphthalene-2-sulfonamido)succinate

Ee = 100%

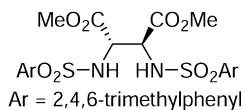
[α]_D²⁵ = +146 (c 0.23, CHCl₃)

Source of chirality: L-aspartic acid

Absolute configuration: (S,S)



Dimethyl (S,S)-2,3-bis(naphthalene-1-sulfonamido)succinate



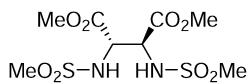
Ee = 100%

 $[\alpha]_D^{25} = +81$ (*c* 0.31, CHCl₃)

Source of chirality: L-aspartic acid

Absolute configuration: (S,S)

$C_{24}H_{32}N_2O_8S_2$
Dimethyl (S,S)-2,3-bis(2,4,6-trimethylphenylsulfonamido)succinate



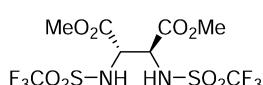
Ee = 100%

 $[\alpha]_D^{25} = +32$ (*c* 0.2, CHCl₃)

Source of chirality: L-aspartic acid

Absolute configuration: (S,S)

$C_8H_{16}N_2O_8S_2$
Dimethyl (S,S)-2,3-di(methylsulfonamido)succinate



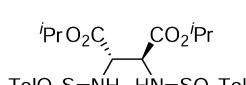
Ee = 100%

 $[\alpha]_D^{25} = +26$ (*c* 0.22, EtOH)

Source of chirality: L-aspartic acid

Absolute configuration: (S,S)

$C_8H_{10}N_2O_8F_6S_2$
Dimethyl (S,S)-2,3-bis(trifluoromethylsulfonamido)succinate



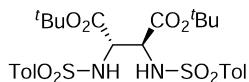
Ee = 100%

 $[\alpha]_D^{25} = +63$ (*c* 0.15, EtOH)

Source of Chirality: L-aspartic acid

Absolute configuration: (S,S)

$C_{24}H_{32}N_2O_8S_2$
Diisopropyl (S,S)-2,3-bis(4-methylphenylsulfonamido)succinate

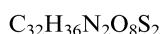
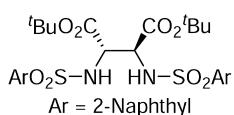


Ee = 100%

 $[\alpha]_D^{25} = +103$ (*c* 0.21, CHCl₃)

Source of chirality: L-aspartic acid

Absolute configuration: (S,S)

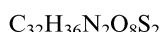
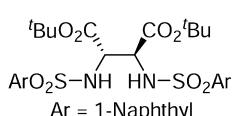
Di-*tert*-butyl (S,S)-2,3-bis(4-methylphenylsulfonamido)succinateDi-*tert*-butyl (S,S)-2,3-bis(naphthalene-2-sulfonamido)succinate

Ee = 100%

 $[\alpha]_D^{25} = +131$ (*c* 0.2, CHCl₃)

Source of chirality: L-aspartic acid

Absolute configuration: (S,S)

Di-*tert*-butyl (S,S)-2,3-bis(naphthalene-1-sulfonamido)succinate

Ee = 100%

 $[\alpha]_D^{25} = +104$ (*c* 0.2, EtOH)

Source of chirality: L-aspartic acid

Absolute configuration: (S,S)

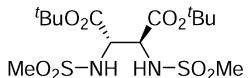
Di-*tert*-butyl (S,S)-2,3-bis(2,4,6-trimethylphenylsulfonamido)succinate

Ee = 100%

 $[\alpha]_D^{25} = +89$ (*c* 0.24, CHCl₃)

Source of chirality: L-aspartic acid

Absolute configuration: (S,S)

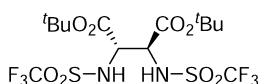


Ee = 100%

 $[\alpha]_D^{25} = -5$ (*c* 0.2, CHCl₃)

Source of chirality: L-aspartic acid

Absolute configuration: (S,S)

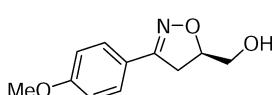
Di-*tert*-butyl (S,S)-2,3-di(methylsulfonamido)succinate

Ee = 100%

 $[\alpha]_D^{25} = +10$ (*c* 0.22, CHCl₃)

Source of chirality: L-aspartic acid

Absolute configuration: (S,S)

Di-*tert*-butyl (S,S)-2,3-bis(trifluoromethylsulfonamido)succinate

Ee = 71%

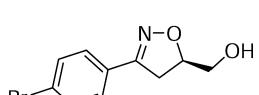
 $[\alpha]_D^{25} = -94$ (*c* 0.53, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (R)



(R)-5-(Hydroxymethyl)-3-(4-methoxyphenyl)-2-isoxazoline

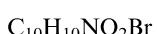


Ee = 57%

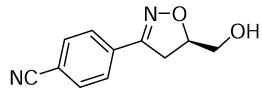
 $[\alpha]_D^{25} = -61$ (*c* 0.29, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (R)



(R)-5-(Hydroxymethyl)-3-(4-bromophenyl)-2-isoxazoline



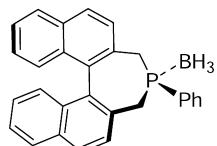
Ee = 49%

 $[\alpha]_D^{25} = -75$ (*c* 0.22, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

$C_{11}H_{10}N_2O_2$
(*R*)-5-(Hydroxymethyl)-3-(4-cyanophenyl)-2-isoxazoline

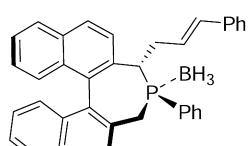


$C_{28}H_{24}PB$
(*S_a*)-4-Phenyl-4,5-dihydro-3*H*-dinaphtho[2,1-*c*;1',2'-*e*]phosphepine borane complex

Ee = 100%

 $[\alpha]_D^{20} = +106$ (*c* 1.0, CHCl₃)

Source of chirality: diastereoselective synthesis

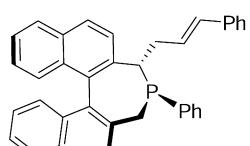
Absolute configuration: (*S_a*)

$C_{37}H_{32}PB$
(*S,S_a,S_P*)-3-Cinnamyl-4-phenyl-4,5-dihydro-3*H*-dinaphtho[2,1-*c*;1',2'-*e*]phosphepine borane complex

Ee = 100%

 $[\alpha]_D^{20} = +404$ (*c* 0.5, CHCl₃)

Source of chirality: diastereoselective synthesis

Absolute configuration: (*S,S_a,S_P*)

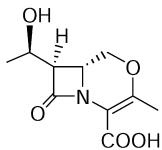
$C_{37}H_{29}P$
(*S,S_a,S_P*)-3-Cinnamyl-4-phenyl-4,5-dihydro-3*H*-dinaphtho[2,1-*c*;1',2'-*e*]phosphepine

Ee = 100%

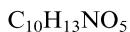
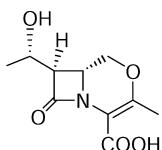
 $[\alpha]_D^{20} = +286$ (*c* 0.5, CHCl₃)

Source of chirality: diastereoselective synthesis

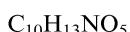
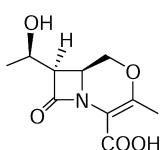
Absolute configuration: (*S,S_a,S_P*)


 $[\alpha]_D^{20} = -220.8$ (*c* 1.0, MeOH)

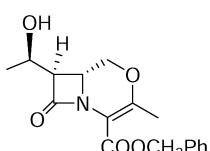
Source of chirality: L-threonine

Absolute configuration: ($\alpha R, 6R, 7R$)(6*R*,7*R*)-7-[(1*R*)-1-Hydroxyethyl]-3-methyl-2-*iso*-oxacephem-4-carboxylic acid
 $[\alpha]_D^{20} = -232.3$ (*c* 1.0, MeOH)

Source of chirality: L-threonine

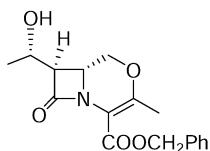
Absolute configuration: ($\alpha S, 6R, 7R$)(6*R*,7*R*)-7-[(1*S*)-1-Hydroxyethyl]-3-methyl-2-*iso*-oxacephem-4-carboxylic acid
 $[\alpha]_D^{25.5} = +175.8$ (*c* 1.0, MeOH)

Source of chirality: L-threonine

Absolute configuration: ($\alpha R, 6S, 7R$)(6*S*,7*R*)-7-[(1*R*)-1-Hydroxyethyl]-3-methyl-2-*iso*-oxacephem-4-carboxylic acid
 $[\alpha]_D^{23.5} = -184.3$ (*c* 1.0, CH₂Cl₂)

Source of chirality: L-threonine

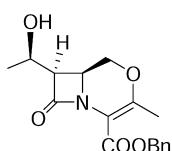
Absolute configuration: ($\alpha R, 6R, 7R$)Benzyl (6*R*,7*R*)-7-[(1*R*)-1-hydroxyethyl]-3-methyl-2-*iso*-oxacephem-4-carboxylate

 $[\alpha]_D^{23} = -190.7$ (*c* 1.0, CH₂Cl₂)

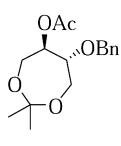
Source of chirality: L-threonine

Absolute configuration: (α S,6R,7R)C₁₇H₁₉NO₅

Benzyl (6R,7R)-7-[(1S)-1-hydroxyethyl]-3-methyl-2-iso-oxacephem-4-carboxylate

C₁₇H₁₉NO₅

Benzyl (6S,7R)-7-[(1R)-1-hydroxyethyl]-3-methyl-2-iso-oxacephem-4-carboxylate

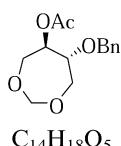
C₁₆H₂₂O₅

(5R,6R)-6-(Benzylxy)-2,2-dimethyl-1,3-dioxepan-5-yl acetate

Ee = 14%

 $[\alpha]_D^{26} = -2.6$ (*c* 0.69, CHCl₃)

Absolute configuration: (5R,6R)

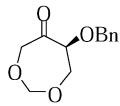
C₁₄H₁₈O₅

(5R,6R)-6-(Benzylxy)-1,3-dioxepan-5-yl acetate

Ee = >99%

 $[\alpha]_D^{31} = -11.7$ (*c* 0.88, CHCl₃)

Absolute configuration: (5R,6R)

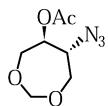


(S)-6-(Benzylxy)-1,3-dioxepan-5-one

Ee = >99%

[α]_D²⁶ = -28.1 (*c* 0.33, CHCl₃)

Absolute configuration: (S)

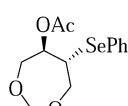


(5S,6R)-6-Azido-1,3-dioxepan-5-yl acetate

Ee = 96%

[α]_D²³ = -40.35 (*c* 0.49, CHCl₃)

Absolute configuration: (5S,6R)

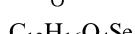
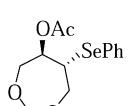


(5R,6R)-2,2-Dimethyl-6-(phenylseleno)-1,3-dioxepan-5-yl acetate

Ee = >99%

[α]_D²⁶ = -29.8 (*c* 1.47, CHCl₃)

Absolute configuration: (5R,6R)



(5R,6R)-6-(Phenylseleno)-1,3-dioxepan-5-yl acetate

Ee = >99%

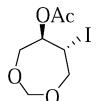
[α]_D²⁵ = -15.0 (*c* 1.06, CHCl₃)

Absolute configuration: (5R,6R)

Ee = 90%

$[\alpha]_D^{23} = -41.7$ (*c* 0.79, CHCl₃)

Absolute configuration: (5*R*,6*R*)

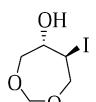


(5*R*,6*R*)-6-Iodo-1,3-dioxepan-5-yl acetate

Ee = 70%

$[\alpha]_D^{24} = +14.4$ (*c* 0.55, CHCl₃)

Absolute configuration: (5*S*,6*S*)

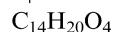
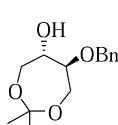


(5*S*,6*S*)-6-Iodo-1,3-dioxepan-5-ol

Ee = 14%

$[\alpha]_D^{25} = +2.0$ (*c* 1.26, CHCl₃)

Absolute configuration: (5*S*,6*S*)

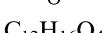
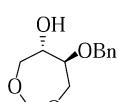


(5*S*,6*S*)-6-(Benzylxy)-2,2-dimethyl-1,3-dioxepan-5-ol

Ee = >99%

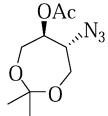
$[\alpha]_D^{30} = +29.0$ (*c* 0.82, CHCl₃)

Absolute configuration: (5*S*,6*S*)



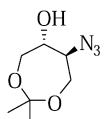
(5*S*,6*S*)-6-(Benzylxy)-1,3-dioxepan-5-ol

Ee = 93%
 $[\alpha]_D^{22} = -43.3$ (*c* 0.49, CHCl₃)
Absolute configuration: (5*S*,6*R*)



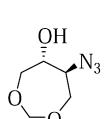
C₉H₁₅N₃O₄
(5*S*,6*R*)-6-Azido-2,2-dimethyl-1,3-dioxepan-5-yl acetate

Ee = >99%
 $[\alpha]_D^{27} = +91.9$ (*c* 0.40, CHCl₃)
Absolute configuration: (5*R*,6*S*)



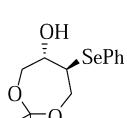
C₇H₁₃N₃O₃
(5*R*,6*S*)-6-Azido-2,2-dimethyl-1,3-dioxepan-5-ol

Ee = >99%
 $[\alpha]_D^{23} = +50.8$ (*c* 0.48, CHCl₃)
Absolute configuration: (5*R*,6*S*)

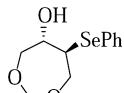


C₅H₉N₃O₃
(5*R*,6*S*)-6-Azido-1,3-dioxepan-5-ol

Ee = >99%
 $[\alpha]_D^{26} = +17.4$ (*c* 1.02, CHCl₃)
Absolute configuration: (5*S*,6*S*)



C₁₃H₁₈O₃Se
(5*S*,6*S*)-2,2-Dimethyl-6-(phenylseleno)-1,3-dioxepan-5-ol



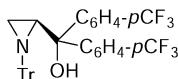
C₁₁H₁₄O₃Se

(5S,6S)-6-(Phenylseleno)-1,3-dioxepan-5-ol

Ee = >99%

[α]_D²⁶ = +4.0 (*c* 0.95, CHCl₃)

Absolute configuration: (5S,6S)



C₃₆H₂₇F₆NO

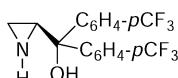
(2S)-1-Tritylaziridin-2-ylbis[4-(trifluoromethyl)phenyl]methanol

Ee >99%

[α]_D²⁰ = -76.1 (*c* 0.72, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)



C₁₇H₁₃F₆NO

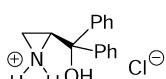
((S)-Aziridin-2-yl)bis[4-(trifluoromethyl)phenyl]methanol

Ee >99%

[α]_D²⁰ = -14.7 (*c* 1.0, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)



C₁₅H₁₆ClNO

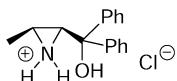
((S)-Aziridin-2-yl)diphenylmethanol-HCl salt

Ee >99%

[α]_D²⁰ = +44.9 (*c* 1.00, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (S)



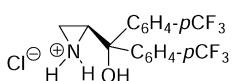
C₁₆H₁₈CINO
(2S,3S)-3-Methylaziridin-2-yl(diphenyl)methanol-HCl salt

Ee >99%

[α]_D²⁰ = +44.9 (*c* 1.00, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)



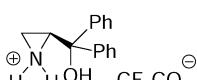
C₁₇H₁₄ClF₆NO
((*S*)-Aziridin-2-yl)bis[4-(trifluoromethyl)phenyl]methanol-HCl salt

Ee >99%

[α]_D²⁰ = +44.5 (*c* 0.6, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)



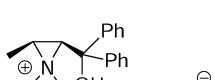
C₁₇H₁₆F₃NO₃
((*S*)-Aziridin-2-yl)diphenylmethanol-TFA salt

Ee >99%

[α]_D²⁰ = +31.3 (*c* 0.67, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)



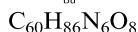
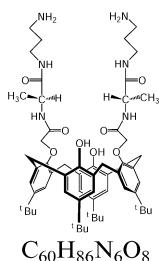
C₁₈H₁₈F₃NO₃
(2S,3S)-3-Methylaziridin-2-yl(diphenyl)methanol-TFA salt

Ee >99%

[α]_D²⁰ = +35.2 (*c* 0.885, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

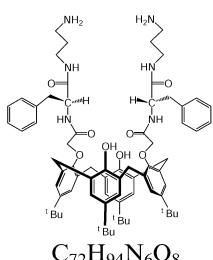


5,11,17,23-Tetra-4-tert-butyl-25,27-bis((S)-2-acetamido-N-(3-aminopropyl)propanamide)-26,28-dihydroxycalix[4]arene

[α]_D²⁰ = +5.2 (c 0.015, CHCl₃)

Source of chirality: chiral pool

Absolute configuration: (S,S)

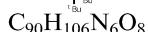
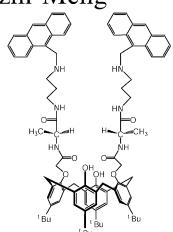


5,11,17,23-Tetra-4-tert-butyl-25,27-bis((S)-2-acetamido-N-(3-aminopropyl)-3-phenylpropanamide)-26,28-dihydroxycalix[4]arene

[α]_D²⁰ = -11.3 (c 0.015, CHCl₃)

Source of chirality: chiral pool

Absolute configuration: (S,S)

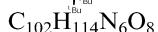
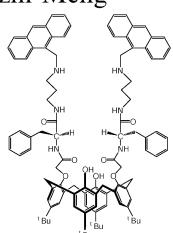


5,11,17,23-Tetra-4-tert-butyl-25,27-bis((S)-2-acetamido-N-(3-(anthracen-10-ylmethylamino)propyl)propanamide)-26,28-dihydroxycalix[4]arene

[α]_D²⁰ = -12.5 (c 0.015, CHCl₃)

Source of chirality: chiral pool

Absolute configuration: (S,S)

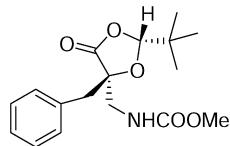


5,11,17,23-Tetra-4-tert-butyl-25,27-bis((S)-2-acetamido-N-(3-(anthracen-10-ylmethylamino)propyl)-3-phenylpropanamide)-26,28-dihydroxycalix[4]arene

[α]_D²⁰ = -36.2 (c 0.015, CHCl₃)

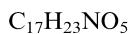
Source of chirality: chiral pool

Absolute configuration: (S,S)

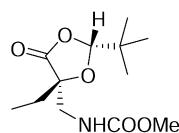

 $[\alpha]_D^{18} = -30.0 \text{ (c 1.0, CH}_2\text{Cl}_2)$

Source of chirality: D-malic acid and diastereoselective synthesis

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

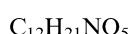


Methyl ((2*R*,4*R*)-2-*tert*-butyl-4-benzyl-5-oxo-1,3-dioxolan-4-yl)carbamate

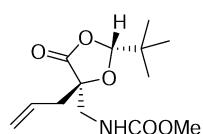

 $[\alpha]_D^{18} = -18.1 \text{ (c 1.0, CH}_2\text{Cl}_2)$

Source of chirality: D-malic acid and diastereoselective synthesis

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

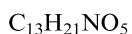


Methyl ((2*R*,4*R*)-2-*tert*-butyl-4-ethyl-5-oxo-1,3-dioxolan-4-yl)carbamate

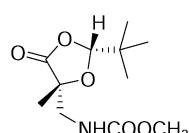

 $[\alpha]_D^{18} = -26.0 \text{ (c 1.3, CH}_2\text{Cl}_2)$

Source of chirality: D-malic acid and diastereoselective synthesis

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



Methyl ((2*R*,4*R*)-2-*tert*-butyl-4-allyl-5-oxo-1,3-dioxolan-4-yl)carbamate

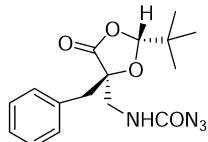

 $[\alpha]_D^{18} = -9.3 \text{ (c 1.1, CH}_2\text{Cl}_2)$

Source of chirality: D-malic acid and diastereoselective synthesis

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



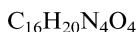
Methyl ((2*R*,4*R*)-2-*tert*-butyl-4-methyl-5-oxo-1,3-dioxolan-4-yl)carbamate



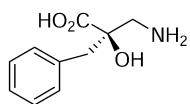
$[\alpha]_D^{18} = -24.0$ (*c* 1.0, CH₂Cl₂)

Source of chirality: D-malic acid and diastereoselective synthesis

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



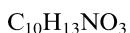
Azido-*N*-((2*R*,4*R*)-4-benzyl-2-tert-butyl-5-oxo-1,3-dioxolan-4-yl)formamide



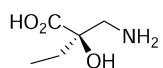
$[\alpha]_D^{18} = -53.0$ (*c* 0.45, H₂O)

Source of chirality: D-malic acid and diastereoselective synthesis

Absolute configuration: (R)



(*R*)-3-Amino-2-benzyl-2-hydroxypropanoic acid



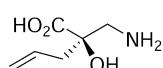
$[\alpha]_D^{18} = -18.0$ (*c* 1.0, H₂O)

Source of chirality: D-malic acid and diastereoselective synthesis

Absolute configuration: (R)



(*R*)-2-(Aminomethyl)-2-hydroxybutanoic acid



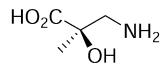
$[\alpha]_D^{18} = -43.7$ (*c* 0.50, H₂O)

Source of chirality: D-malic acid and diastereoselective synthesis

Absolute configuration: (R)



(*R*)-2-(Aminomethyl)-2-hydroxypent-4-enoic acid

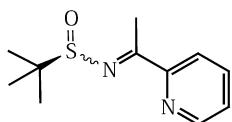

 $[\alpha]_D^{18} = -11.5 \text{ (c 1.0, H}_2\text{O)}$

Source of chirality: D-malic acid and diastereoselective synthesis

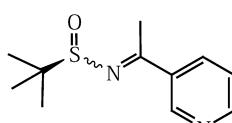
Absolute configuration: (R)



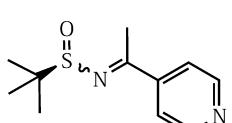
(R)-3-Amino-2-hydroxy-2-methylpropanoic acid


 $[\alpha]_D^{25} = -49.5 \text{ (c 0.075, CHCl}_3)$

 Absolute configuration: (R_S)

 (R_S)-N-[1-(Pyridin-2-yl)ethylidene]-2-methylpropane-2-sulfinamide

 $[\alpha]_D^{25} = +11.2 \text{ (c 0.040, CHCl}_3)$

 Absolute configuration: (R_S)

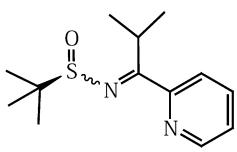
 (R_S)-N-[1-(Pyridin-3-yl)ethylidene]-2-methylpropane-2-sulfinamide

 $[\alpha]_D^{25} = -20.1 \text{ (c 0.141, CHCl}_3)$

 Absolute configuration: (R_S)

 (R_S)-N-[1-(Pyridin-4-yl)ethylidene]-2-methylpropane-2-sulfinamide

Giorgio Chelucci,* Salvatore Baldino, Simona Chessa,
Gerard A. Pinna and Franco Soccolini

Tetrahedron: Asymmetry 17 (2006) 3163

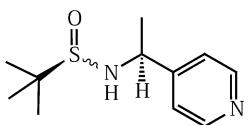


(*R*_S)-*N*-[2-Methyl-1-(pyridin-2-yl)propylidene]-2-methylpropane-2-sulfinamide

[α]_D²⁵ = -171.0 (*c* 0.074, CHCl₃)
Absolute configuration: (*R*_S)

Giorgio Chelucci,* Salvatore Baldino, Simona Chessa,
Gerard A. Pinna and Franco Soccolini

Tetrahedron: Asymmetry 17 (2006) 3163

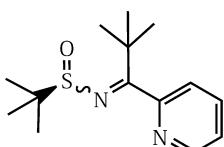


(*R*_S,*S*)-*N*-[1-(Pyridin-4-yl)ethyl]-2-methylpropane-2-sulfinamide

[α]_D²⁵ = -50.0 (*c* 0.036, CHCl₃)
Absolute configuration: (*R*_S,*S*)
Prepared from 4-acetylpyridine

Giorgio Chelucci,* Salvatore Baldino, Simona Chessa,
Gerard A. Pinna and Franco Soccolini

Tetrahedron: Asymmetry 17 (2006) 3163

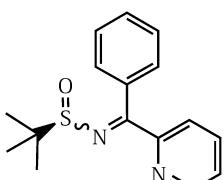


(*R*_S)-*N*-[2,2-Dimethyl-1-(pyridin-2-yl)propylidene]-2-methylpropane-2-sulfinamide

[α]_D²⁵ = -179.7 (*c* 0.028, CHCl₃)
Absolute configuration: (*R*_S)

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Gerard A. Pinna and Franco Soccolini

Tetrahedron: Asymmetry 17 (2006) 3163

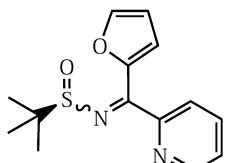


(*R*_S)-*N*-[Phenyl(pyridin-2-yl)methylene]-2-methylpropane-2-sulfinamide

[α]_D²⁵ = -123.6 (*c* 0.071, CHCl₃)
Absolute configuration: (*R*_S)

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Gerard A. Pinna and Franco Soccolini

Tetrahedron: Asymmetry 17 (2006) 3163

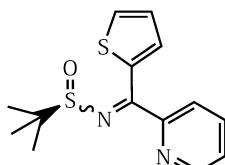


(*R*_S)-*N*-[Furan-2yl(pyridin-2-yl)methylene]-2-methylpropane-2-sulfonamide

[α]_D²⁵ = -211.6 (*c* 0.029, CHCl₃)
Absolute configuration: (*R*_S)

Giorgio Chelucci,* Salvatore Baldino, Simona Chessa,
Gerard A. Pinna and Franco Soccolini

Tetrahedron: Asymmetry 17 (2006) 3163

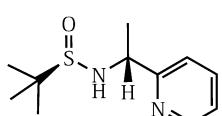


(*R*_S)-*N*-[Pyridin-2-yl(thiophen-2-yl)methylene]-2-methylpropane-2-sulfonamide

[α]_D²⁵ = -83.5 (*c* 0.074, CHCl₃)
Absolute configuration: (*R*_S)

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Gerard A. Pinna and Franco Soccolini

Tetrahedron: Asymmetry 17 (2006) 3163

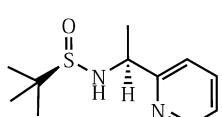


(*R*_S,*R*)-[1-(Pyridin-2-yl)ethyl]-2-methylpropane-2-sulfonamide

[α]_D²⁵ = -55.1 (*c* 0.092, CHCl₃)
Absolute configuration: (*R*_S,*R*)
Prepared from 2-acetylpyridine

Giorgio Chelucci,* Salvatore Baldino, Simona Chessa,
Gerard A. Pinna and Franco Soccolini

Tetrahedron: Asymmetry 17 (2006) 3163

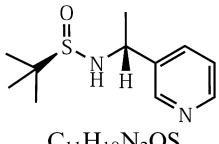


(*R*_S,*S*)-[1-(Pyridin-2-yl)ethyl]-2-methylpropane-2-sulfonamide

[α]_D²⁵ = -41.3 (*c* 0.052, CHCl₃)
Absolute configuration: (*R*_S,*S*)
Prepared from 2-acetylpyridine

Giorgio Chelucci,* Salvatore Baldino, Simona Chessa,
Gerard A. Pinna and Franco Soccolini

Tetrahedron: Asymmetry 17 (2006) 3163



(*R,S,R*)-*N*-[1-(Pyridin-3-yl)ethyl]-2-methylpropane-2-sulfonamide

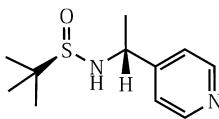
[α]_D²⁵ = -33.2 (*c* 0.032, CHCl₃)

Absolute configuration: (*R_S,R*)

Prepared from 3-acetylpyridine

Giorgio Chelucci,* Salvatore Baldino, Simona Chessa,
Gerard A. Pinna and Franco Soccolini

Tetrahedron: Asymmetry 17 (2006) 3163



(*R,S,R*)-*N*-[1-(Pyridin-2-yl)ethyl]-2-methylpropane-2-sulfonamide

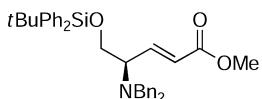
[α]_D²⁵ = -32.4 (*c* 0.094, CHCl₃)

Absolute configuration: (*R_S,R*)

Prepared from 4-acetylpyridine

Shiva K. Rastogi and Alexander Kornienko*

Tetrahedron: Asymmetry 17 (2006) 3170



Methyl (4*R*)-(E)-5-(tert-butyldiphenylsilyloxy)-4-dibenzylaminopent-2-enoate

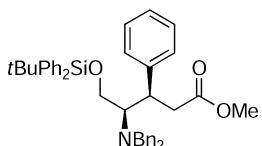
[α]_D²³ = -21.4 (*c* 0.14, CHCl₃)

Source of chirality: L-serine

Absolute configuration: (*R*)

Shiva K. Rastogi and Alexander Kornienko*

Tetrahedron: Asymmetry 17 (2006) 3170

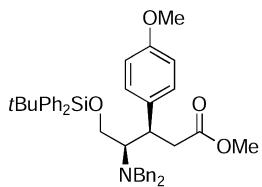


Methyl (3*R*,4*R*)-5-(tert-butyldiphenylsilyloxy)-4-dibenzylamino-3-phenylpentanoate

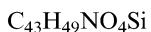
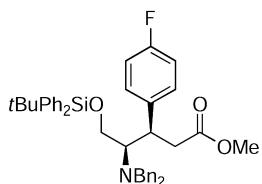
[α]_D²³ = -12.6 (*c* 0.15, CHCl₃)

Source of chirality: L-serine

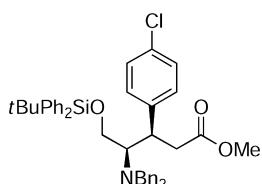
Absolute configuration: (3*R*,4*R*)


 $[\alpha]_D^{24} = -10.7$ (*c* 0.06, CHCl₃)

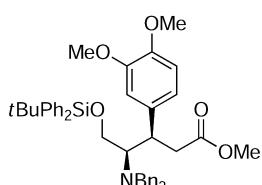
Source of chirality: L-serine

Absolute configuration: (3*R*,4*R*)Methyl (3*R*,4*R*)-5-(*tert*-butyldiphenylsilyloxy)-4-dibenzylamino-3-(4-methoxyphenyl)pentanoate
 $[\alpha]_D^{24} = -22.9$ (*c* 0.02, CHCl₃)

Source of chirality: L-serine

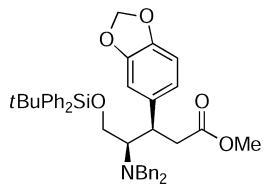
Absolute configuration: (3*R*,4*R*)Methyl (3*R*,4*R*)-5-(*tert*-butyldiphenylsilyloxy)-4-dibenzylamino-3-(4-fluorophenyl)pentanoate
 $[\alpha]_D^{24} = -11.8$ (*c* 0.1, CHCl₃)

Source of chirality: L-serine

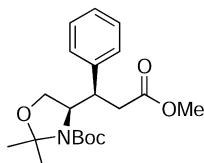
Absolute configuration: (3*R*,4*R*)Methyl (3*R*,4*R*)-5-(*tert*-butyldiphenylsilyloxy)-4-dibenzylamino-3-(4-chlorophenyl)pentanoate
 $[\alpha]_D^{24} = -13.6$ (*c* 0.03, CHCl₃)

Source of chirality: L-serine

Absolute configuration: (3*R*,4*R*)Methyl (3*R*,4*R*)-5-(*tert*-butyldiphenylsilyloxy)-4-dibenzylamino-3-(3,4-dimethoxyphenyl)pentanoate

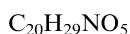
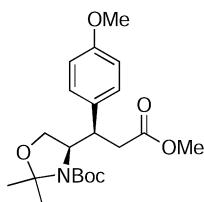

 $[\alpha]_D^{24} = -9.1$ (*c* 0.01, CHCl₃)

Source of chirality: L-serine

Absolute configuration: (3*R*,4*R*)Methyl (3*R*,4*R*)-5-(*tert*-butyldiphenylsilyloxy)-4-dibenzylamino-3-(benzo[1,3]dioxol-5-yl)pentanoate
 $[\alpha]_D^{21} = +35.7$ (*c* 0.02, CHCl₃)

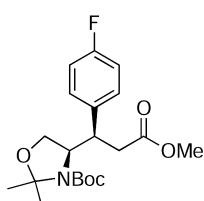
Source of chirality: L-serine

Absolute configuration: (R,R)

(R)-*tert*-Butyl-4-((R)-2-(methoxycarbonyl)-1-phenylethyl)-2,2-dimethoxyazolidine-3-carboxylate
 $[\alpha]_D^{21} = +40.0$ (*c* 0.02, CHCl₃)

Source of chirality: L-serine

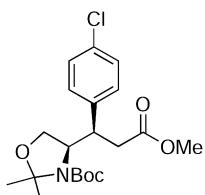
Absolute configuration: (R,R)

(R)-*tert*-Butyl-4-((R)-2-(methoxycarbonyl)-1-(4-methoxyphenyl)ethyl)-2,2-dimethoxyazolidine-3-carboxylate
 $[\alpha]_D^{21} = +33.6$ (*c* 0.03, CHCl₃)

Source of chirality: L-serine

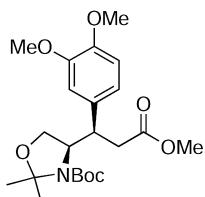
Absolute configuration: (R,R)

(R)-*tert*-Butyl-4-((R)-2-(methoxycarbonyl)-1-(4-fluorophenyl)ethyl)-2,2-dimethoxyazolidine-3-carboxylate


 $[\alpha]_D^{21} = +26.0$ (*c* 0.03, CHCl₃)

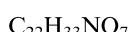
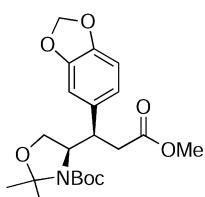
Source of chirality: L-serine

Absolute configuration: (R,R)

(R)-*tert*-Butyl-4-((R)-2-(methoxycarbonyl)-1-(4-chlorophenyl)ethyl)-2,2-dimethyloxazolidine-3-carboxylate
 $[\alpha]_D^{21} = +38.2$ (*c* 0.01, CHCl₃)

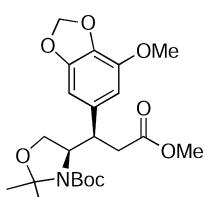
Source of chirality: L-serine

Absolute configuration: (R,R)

(R)-*tert*-Butyl-4-((R)-2-(methoxycarbonyl)-1-(3,4-dimethoxyphenyl)ethyl)-2,2-dimethyloxazolidine-3-carboxylate
 $[\alpha]_D^{21} = +29.4$ (*c* 0.02, CHCl₃)

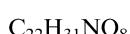
Source of chirality: L-serine

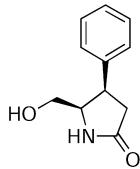
Absolute configuration: (R,R)

(R)-*tert*-Butyl-4-((R)-2-(methoxycarbonyl)-1-(benzo[d][1,3]dioxol-6-yl)ethyl)-2,2-dimethyloxazolidine-3-carboxylate
 $[\alpha]_D^{21} = +73.3$ (*c* 0.01, CHCl₃)

Source of chirality: L-serine

Absolute configuration: (R,R)

(R)-*tert*-Butyl-4-((R)-2-(methoxycarbonyl)-1-(4-methoxybenzo[d][1,3]dioxol-6-yl)ethyl)-2,2-dimethyloxazolidine-3-carboxylate

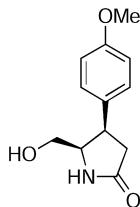


C₁₁H₁₃NO₂
(4R,5R)-5-(Hydroxymethyl)-4-phenylpyrrolidin-2-one

[α]_D²³ = -63.4 (c 0.01, CH₃OH)

Source of chirality: L-serine

Absolute configuration: (4R,5R)

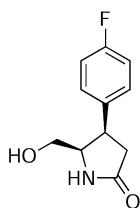


C₁₂H₁₅NO₃
(4R,5R)-5-(Hydroxymethyl)-4-(4-methoxyphenyl)pyrrolidin-2-one

[α]_D²³ = -95.7 (c 0.02, CH₃OH)

Source of chirality: L-serine

Absolute configuration: (4R,5R)

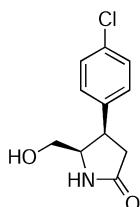


C₁₁H₁₂FNO₂
(4R,5R)-4-(4-Fluorophenyl)-5-(hydroxymethyl)pyrrolidin-2-one

[α]_D²³ = -105.7 (c 0.03, CH₃OH)

Source of chirality: L-serine

Absolute configuration: (4R,5R)

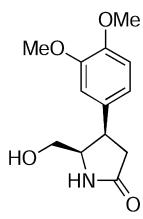


C₁₁H₁₂ClNO₂
(4R,5R)-4-(4-Chlorophenyl)-5-(hydroxymethyl)pyrrolidin-2-one

[α]_D²³ = -113.7 (c 0.01, CH₃OH)

Source of chirality: L-serine

Absolute configuration: (4R,5R)

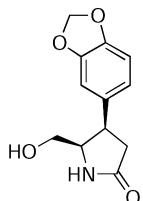


C₁₃H₁₇NO₄
(4R,5R)-5-(Hydroxymethyl)-4-(3,4-dimethoxyphenyl)pyrrolidin-2-one

[α]_D²¹ = -110.0 (c 0.01, CH₃OH)

Source of chirality: L-serine

Absolute configuration: (4R,5R)

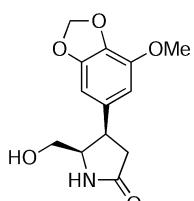


C₁₂H₁₃NO₄
(4R,5R)-4-(Benzo[d][1,3]dioxol-6-yl)-5-(hydroxymethyl)pyrrolidin-2-one

[α]_D²³ = -104.2 (c 0.003, CH₃OH)

Source of chirality: L-serine

Absolute configuration: (4R,5R)

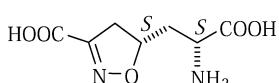


C₁₃H₁₅NO₅
(4R,5R)-5-(Hydroxymethyl)-4-(4-methoxybenzo[d][1,3]dioxol-6-yl)pyrrolidin-2-one

[α]_D²⁴ = -123.4 (c 0.01, CH₃OH)

Source of chirality: L-serine

Absolute configuration: (4R,5R)



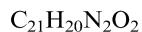
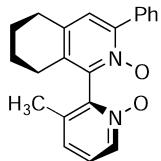
C₇H₁₀N₂O₅
5-(2-Amino-2-carboxylethyl)-4,5-dihydro-isoxazole-3-carboxylic acid

Ee: 100%

[α]_D²⁰ = -69.0 (c 0.1, water/methanol 1:1)

Absolute configuration: (3S,5S)

Source of chirality: enzymatic resolution

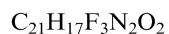
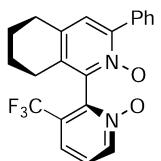


(S)-5,6,7,8-Tetrahydro-1-(3-methylpyridin-2-yl)-3-phenylisoquinoline *N,N'*-dioxide

[α]_D = -350 (*c* 0.01, CHCl₃)

Source of chirality: chiral HPLC separation

Absolute configuration: (S)



(S)-5,6,7,8-Tetrahydro-1-(3-methylpyridin-2-yl)-3-phenylisoquinoline

[α]_D = +39 (*c* 0.01, CHCl₃)

Source of chirality: chiral HPLC separation

Absolute configuration: (S)