

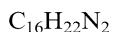
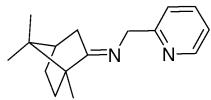
Stereochemistry abstracts

Gonzalo Blay, Estela Climent, Isabel Fernández,
Victor Hernández-Olmos and José R. Pedro*

Tetrahedron: Asymmetry 17 (2006) 2046

$$[\alpha]_D^{25} = -24.2 \text{ (} c \text{ 0.91, CHCl}_3 \text{)}$$

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



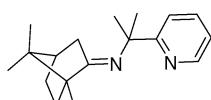
(*E*)-*N*-((1*R*,4*R*)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-ylidene)(pyridin-2-yl)methanamine

Gonzalo Blay, Estela Climent, Isabel Fernández,
Victor Hernández-Olmos and José R. Pedro*

Tetrahedron: Asymmetry 17 (2006) 2046

$$[\alpha]_D^{25} = -5.6 \text{ (} c \text{ 0.99, CHCl}_3 \text{)}$$

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



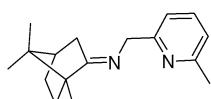
(*E*)-*N*-((1*R*,4*R*)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-ylidene)-2-(pyridin-2-yl)propan-2-amine

Gonzalo Blay, Estela Climent, Isabel Fernández,
Victor Hernández-Olmos and José R. Pedro*

Tetrahedron: Asymmetry 17 (2006) 2046

$$[\alpha]_D^{25} = -23.9 \text{ (} c \text{ 0.92, CHCl}_3 \text{)}$$

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



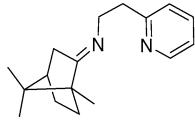
(*E*)-*N*-((1*R*,4*R*)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-ylidene)(6-methylpyridin-2-yl)methanamine

Gonzalo Blay, Estela Climent, Isabel Fernández,
Victor Hernández-Olmos and José R. Pedro*

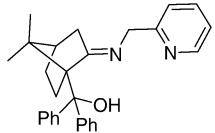
Tetrahedron: Asymmetry 17 (2006) 2046

$$[\alpha]_D^{25} = -28.4 \text{ (} c \text{ 1.00, CHCl}_3 \text{)}$$

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



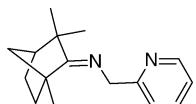
(*E*)-*N*-((1*R*,4*R*)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-ylidene)-2-(pyridin-2-yl)ethanamine



$C_{28}H_{30}N_2$
((E,1S,4R)-2-[(Pyridin-2-yl)methylimino]-7,7-dimethylbicyclo[2.2.1]heptan-1-yl)diphenylmethanol

$[\alpha]_D^{25} = +163.7$ (*c* 0.97, CHCl₃)

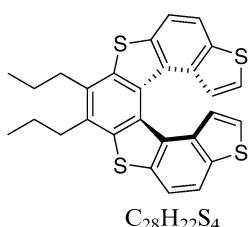
Source of chirality: (1*S*)-(+)ketopinic acid



$C_{18}H_{27}N_3O_2S$
(*Z*)-*N*-(1*R*,4*S*)-1,3,3,7,7-Pentamethylbicyclo[2.2.1]heptan-2-ylidene)(pyridin-2-yl)methanamine

$[\alpha]_D^{25} = -70.9$ (*c* 0.38, CHCl₃)

Source of chirality: (1*R*)-(−)-fenchone



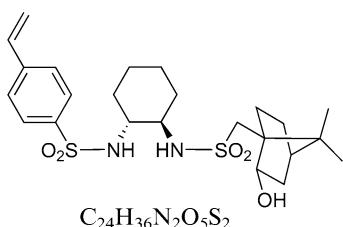
(*P*)-(+)-7,8-Dipropylidithieno[3,2-e:3',2'-e']benzo[1,2-b:4,3-b']bis[1]benzothiophene

Ee = 98.9%

$[\alpha]_D^{20} = +685$ (*c* 0.187, CHCl₃)

Source of chirality: resolution using HPLC with a chiral stationary phase (Chiralpak IA)

Absolute configuration: *P*



$C_{24}H_{36}N_2O_5S_2$
N-{2-(2-Hydroxy-7,7-dimethylbicyclo[2.2.1]hept-1-ylmethanesulfonylamino)cyclohexyl}-4-vinylbenzenesulfonamide

Ee = 100%

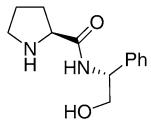
$[\alpha]_D^{25} = +20.1$ (*c* 1.1, CHCl₃)

Source of chirality: (+)-10-camphorsulfonyl chloride

$[\alpha]_D^{20} = -86.9$ (c 1.0, CH₂Cl₂)

Source of chirality: L-proline

Absolute configuration: L,R

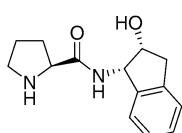
C₁₃H₁₈N₂O₂

(S)-N-(R)-[2-Hydroxy-1-phenylethyl]pyrrolidine-2-carboxamide

 $[\alpha]_D^{20} = -24.4$ (c 1.0, CH₂Cl₂)

Source of chirality: L-proline

Absolute configuration: L,1S,2R

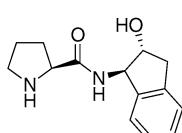
C₁₄H₁₈N₂O₂

(2S)-N-[(1S,2R)-2,3-Dihydro-2-hydroxy-1H-inden-1-yl]pyrrolidine-2-carboxamide

 $[\alpha]_D^{20} = +78.8$ (c 1.0, CH₂Cl₂)

Source of chirality: L-proline

Absolute configuration: L,1R,2R

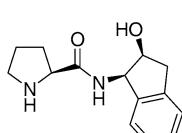
C₁₄H₁₈N₂O₂

(2S)-N-[(1R,2R)-2,3-Dihydro-2-hydroxy-1H-inden-1-yl]pyrrolidine-2-carboxamide

 $[\alpha]_D^{20} = -6.9$ (c 1.0, CH₂Cl₂)

Source of chirality: L-proline

Absolute configuration: L,1R,2S

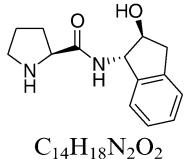
C₁₄H₁₈N₂O₂

(2S)-N-[(1R,2S)-2,3-Dihydro-2-hydroxy-1H-inden-1-yl]pyrrolidine-2-carboxamide

$[\alpha]_D^{20} = -78.4$ (*c* 1.0, CH₂Cl₂)

Source of chirality: L-proline

Absolute configuration: L,1S,2S

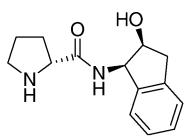
C₁₄H₁₈N₂O₂

(2S)-N-[(1S,2S)-2,3-Dihydro-2-hydroxy-1H-inden-1-yl]pyrrolidine-2-carboxamide

 $[\alpha]_D^{20} = +24.6$ (*c* 1.0, CH₂Cl₂)

Source of chirality: L-proline

Absolute configuration: D,1R,2S

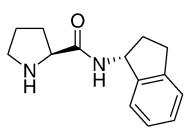
C₁₄H₁₈N₂O₂

(2R)-N-[(1R,2S)-2,3-Dihydro-2-hydroxy-1H-inden-1-yl]pyrrolidine-2-carboxamide

 $[\alpha]_D^{20} = +23.4$ (*c* 1.0, CH₂Cl₂)

Source of chirality: L-proline

Absolute configuration: L,R

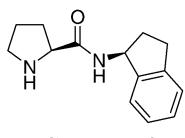
C₁₄H₁₈N₂O

(2S)-N-[(R)-2,3-Dihydro-1H-inden-1-yl]pyrrolidine-2-carboxamide

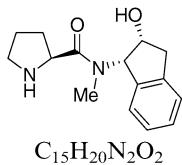
 $[\alpha]_D^{20} = -76.4$ (*c* 1.0, CH₂Cl₂)

Source of chirality: L-proline

Absolute configuration: L,S

C₁₄H₁₈N₂O

(2S)-N-[(S)-2,3-Dihydro-1H-inden-1-yl]pyrrolidine-2-carboxamide

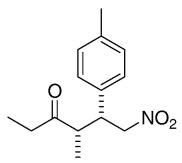


(2S)-N-[(1S,2R)-2,3-Dihydro-2-hydroxy-1H-inden-1-yl]-N-methylpyrrolidine-2-carboxamide

 $[\alpha]_D^{20} = -29.0$ (*c* 1.0, CH₂Cl₂)

Source of chirality: L-proline

Absolute configuration: L,1S,2R

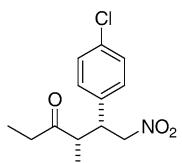


syn-4-Methyl-6-nitro-5-p-tolylhexan-3-one

Ee = 74% by HPLC on Chiralcel OD-H column

 $[\alpha]_D^{20} = +14.8$ (*c* 1.0, CH₂Cl₂)

Source of chirality: asymmetric catalysis

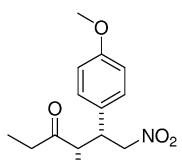


syn-5-(4-Chlorophenyl)-4-methyl-6-nitrohexan-3-one

Ee = 78% by HPLC on Chiralcel OD-H column

 $[\alpha]_D^{20} = +5.7$ (*c* 1.0, CH₂Cl₂)

Source of chirality: asymmetric catalysis

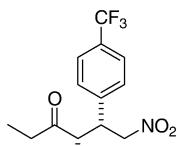


syn-5-(4-Methoxyphenyl)-4-methyl-6-nitrohexan-3-one

Ee = 73% by HPLC on Chiralcel OD-H column

 $[\alpha]_D^{20} = +18.7$ (*c* 1.0, CH₂Cl₂)

Source of chirality: asymmetric catalysis

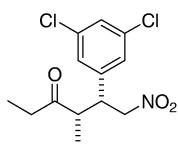


syn-4-Methyl-6-nitro-5-(4-(trifluoromethyl)phenyl)hexan-3-one

Ee = 50% by HPLC on Chiralcel OD-H column

$[\alpha]_D^{20} = -4.5$ (*c* 1.0, CH_2Cl_2)

Source of chirality: asymmetric catalysis

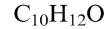
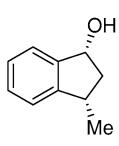


syn-5-(3,5-Dichlorophenyl)-4-methyl-6-nitrohexan-3-one

Ee = 73% by HPLC on Chiralcel OD-H column

$[\alpha]_D^{20} = -24.4$ (*c* 1.0, CH_2Cl_2)

Source of chirality: asymmetric catalysis



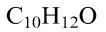
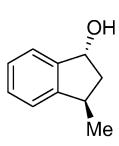
(1*R*,3*S*)-3-Methyl-2,3-dihydro-1*H*-inden-1-ol

Ee = 82%

$[\alpha]_D^{27} = -26.7$ (*c* 0.95, CHCl_3)

Source of chirality: asymmetric reduction

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



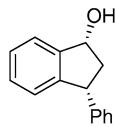
(1*R*,3*R*)-3-Methyl-2,3-dihydro-1*H*-inden-1-ol

Ee = 95%

$[\alpha]_D^{27} = -27.3$ (*c* 0.85, CHCl_3)

Source of chirality: asymmetric reduction

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

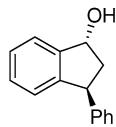


C₁₅H₁₄O
(1*R*,3*R*)-3-Phenyl-2,3-dihydro-1*H*-inden-1-ol

Ee = 78%

[α]_D²⁷ = -12.4 (c 1.50, CHCl₃)

Source of chirality: asymmetric reduction

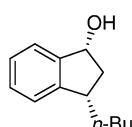
Absolute configuration: (1*R*,3*R*)

C₁₅H₁₄O
(1*R*,3*S*)-3-Phenyl-2,3-dihydro-1*H*-inden-1-ol

Ee = 91%

[α]_D²⁷ = -30.8 (c 1.50, CHCl₃)

Source of chirality: asymmetric reduction

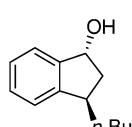
Absolute configuration: (1*R*,3*S*)

C₁₃H₁₈O
(1*R*,3*S*)-3-Butyl-2,3-dihydro-1*H*-inden-1-ol

Ee = 80%

[α]_D²⁸ = -56.8 (c 0.75, CHCl₃)

Source of chirality: asymmetric reduction

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

C₁₃H₁₈O
(1*R*,3*R*)-3-Butyl-2,3-dihydro-1*H*-inden-1-ol

Ee = 94%

[α]_D²⁹ = -34.4 (c 0.95, CHCl₃)

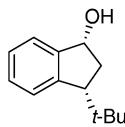
Source of chirality: asymmetric reduction

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

Ee = 80%

 $[\alpha]_D^{19} = -59.1$ (*c* 0.90, CHCl₃)

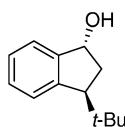
Source of chirality: asymmetric reduction

Absolute configuration: (1*R*,3*R*)C₁₃H₁₈O(1*R*,3*R*)-3-*tert*-Butyl-2,3-dihydro-1*H*-inden-1-ol

Ee = 96%

 $[\alpha]_D^{19} = -57.9$ (*c* 0.75, CHCl₃)

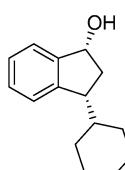
Source of chirality: asymmetric reduction

Absolute configuration: (1*R*,3*S*)C₁₃H₁₈O(1*R*,3*S*)-3-*tert*-Butyl-2,3-dihydro-1*H*-inden-1-ol

Ee = 78%

 $[\alpha]_D^{23} = -31.9$ (*c* 0.80, CHCl₃)

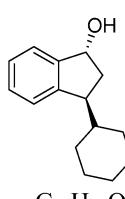
Source of chirality: asymmetric reduction

Absolute configuration: (1*R*,3*R*)C₁₅H₂₀O(1*R*,3*R*)-3-Cyclohexyl-2,3-dihydro-1*H*-inden-1-ol

Ee = 93%

 $[\alpha]_D^{23} = -35.9$ (*c* 0.80, CHCl₃)

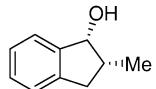
Source of chirality: asymmetric reduction

Absolute configuration: (1*R*,3*S*)C₁₅H₂₀O(1*R*,3*S*)-3-Cyclohexyl-2,3-dihydro-1*H*-inden-1-ol

Ee = 31%

 $[\alpha]_D^{27} = -65.5$ (c 1.10, CHCl₃)

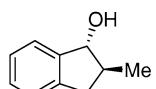
Source of chirality: asymmetric reduction

Absolute configuration: (1*R*,2*R*)C₁₀H₁₂O(1*R*,2*R*)-2-Methyl-2,3-dihydro-1*H*-inden-1-ol

Ee = 85%

 $[\alpha]_D^{27} = -59.4$ (c 1.10, CHCl₃)

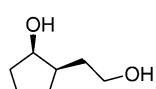
Source of chirality: asymmetric reduction

Absolute configuration: (1*R*,2*S*)C₁₀H₁₂O(1*R*,2*S*)-2-Methyl-2,3-dihydro-1*H*-inden-1-ol

Ee = 50%

 $[\alpha]_D^{25} = -12.4$ (c 0.20, CHCl₃)

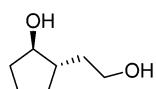
Source of chirality: asymmetric reduction

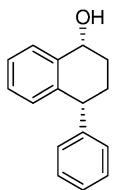
Absolute configuration: (1*R*,2*R*)C₇H₁₄O₂(1*R*,2*R*)-2-(2-hydroxyethyl)cyclopentanol

Ee = 87%

 $[\alpha]_D^{20} = -35.3$ (c 0.20, CHCl₃)

Source of chirality: asymmetric reduction

Absolute configuration: (1*R*,2*S*)C₇H₁₄O₂(1*R*,2*S*)-2-(2-hydroxyethyl)cyclopentanol

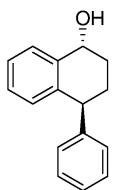


C₁₆H₁₆O
(1*R*,4*R*)-4-Phenyl-1,2,3,4-tetrahydronaphthalen-1-ol

Ee = 95%

[α]_D²⁴ = -49.4 (c 0.48, CHCl₃)

Source of chirality: asymmetric reduction

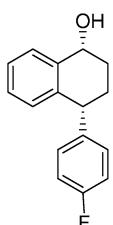
Absolute configuration: (1*R*,4*R*)

C₁₆H₁₆O
(1*R*,4*S*)-4-Phenyl-1,2,3,4-tetrahydronaphthalen-1-ol

Ee = 88%

[α]_D²⁴ = -15.7 (c 1.10, CHCl₃)

Source of chirality: asymmetric reduction

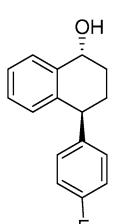
Absolute configuration: (1*R*,4*S*)

C₁₆H₁₅FO
(1*R*,4*R*)-4-(4-Fluorophenyl)-1,2,3,4-tetrahydronaphthalen-1-ol

Ee = 97%

[α]_D²⁴ = -8.8 (c 0.70, CHCl₃)

Source of chirality: asymmetric reduction

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

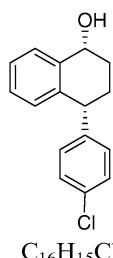
C₁₆H₁₅FO
(1*R*,4*S*)-4-(4-Fluorophenyl)-1,2,3,4-tetrahydronaphthalen-1-ol

Ee = 94%

[α]_D²⁷ = -51.4 (c 1.35, CHCl₃)

Source of chirality: asymmetric reduction

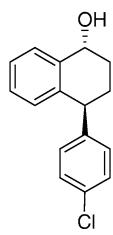
Absolute configuration: (1*R*,4*S*)

 $C_{16}H_{15}ClO$ (1*R*,4*R*)-4-(4-Chlorophenyl)-1,2,3,4-tetrahydronaphthalen-1-ol

Ee = 95%

 $[\alpha]_D^{25} = -56.9$ (*c* 0.92, $CHCl_3$)

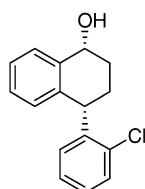
Source of chirality: asymmetric reduction

Absolute configuration: (1*R*,4*R*) $C_{16}H_{15}ClO$ (1*R*,4*S*)-4-(4-Chlorophenyl)-1,2,3,4-tetrahydronaphthalen-1-ol

Ee = 95%

 $[\alpha]_D^{25} = -6.9$ (*c* 0.92, $CHCl_3$)

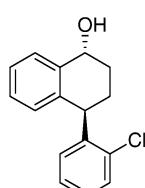
Source of chirality: asymmetric reduction

Absolute configuration: (1*R*,4*S*) $C_{16}H_{15}ClO$ (1*R*,4*S*)-4-(2-Chlorophenyl)-1,2,3,4-tetrahydronaphthalen-1-ol

Ee = 96%

 $[\alpha]_D^{24} = -43.4$ (*c* 0.92, $CHCl_3$)

Source of chirality: asymmetric reduction

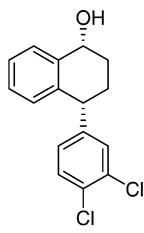
Absolute configuration: (1*R*,4*S*) $C_{16}H_{15}ClO$ (1*R*,4*R*)-4-(2-Chlorophenyl)-1,2,3,4-tetrahydronaphthalen-1-ol

Ee = 94%

 $[\alpha]_D^{24} = -24.7$ (*c* 0.92, $CHCl_3$)

Source of chirality: asymmetric reduction

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

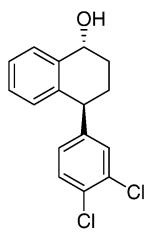


$C_{16}H_{14}Cl_2O$
(1*R*,4*R*)-4-(3,4-Dichlorophenyl)-1,2,3,4-tetrahydronaphthalen-1-ol

Ee = 97%

 $[\alpha]_D^{24} = -52.5$ (*c* 1.14, $CHCl_3$)

Source of chirality: asymmetric reduction

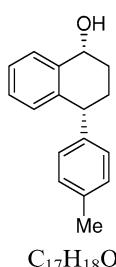
Absolute configuration: (1*R*,4*R*)

$C_{16}H_{14}Cl_2O$
(1*R*,4*S*)-4-(3,4-Dichlorophenyl)-1,2,3,4-tetrahydronaphthalen-1-ol

Ee = 94%

 $[\alpha]_D^{24} = 1.48$ (*c* 1.00, $CHCl_3$)

Source of chirality: asymmetric reduction

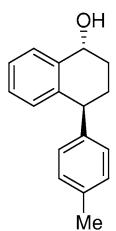
Absolute configuration: (1*R*,4*S*)

$C_{17}H_{18}O$
(1*R*,4*R*)-4-*p*-Tolyl-1,2,3,4-tetrahydronaphthalen-1-ol

Ee = 94%

 $[\alpha]_D^{24} = -46.84$ (*c* 1.00, $CHCl_3$)

Source of chirality: asymmetric reduction

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

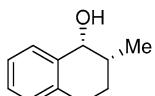
$C_{17}H_{18}O$
(1*R*,4*S*)-4-*p*-Tolyl-1,2,3,4-tetrahydronaphthalen-1-ol

Ee = 91%

 $[\alpha]_D^{25} = -2.86$ (*c* 1.15, $CHCl_3$)

Source of chirality: asymmetric reduction

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

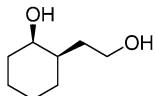


C₁₁H₁₄O
(1*R*,2*R*)-2-Methyl-1,2,3,4-tetrahydronaphthalen-1-ol

Ee = 18%

[α]_D²⁰ = 8.97 (c 0.95, CHCl₃)

Source of chirality: asymmetric reduction

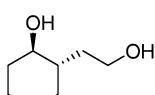
Absolute configuration: (1*R*,2*R*)

C₈H₁₆O₂
(1*R*,2*R*)-2-(2-Hydroxyethyl)cyclohexanol

Ee = 94%

[α]_D²⁵ = -13.2 (c 1.22, CHCl₃)

Source of chirality: asymmetric reduction

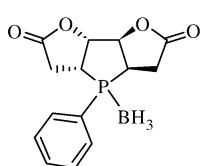
Absolute configuration: (1*R*,2*R*)

C₈H₁₆O₂
(1*R*,2*S*)-2-(2-Hydroxyethyl)cyclohexanol

Ee = 88%

[α]_D²³ = -26.2 (c 0.70, CHCl₃)

Source of chirality: asymmetric reduction

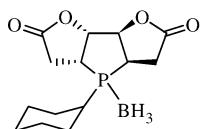
Absolute configuration: (1*R*,2*S*)

C₁₄H₁₆BO₄P
(3a*R*,4a*R*,7a*R*,7b*R*)-4-Phenylperhydrofuro[2',3':4,5]phospholo[3,2-*b*]furan-2,6-dione-BH₃ complex

De = >99%, ee = >99%

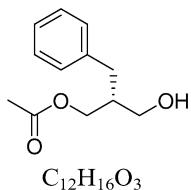
[α]_D²⁵ = +74.25 (c 2.97, CHCl₃)

Source of chirality: natural L-(+)-tartaric acid



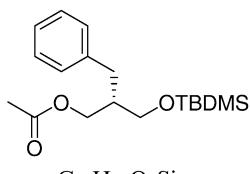
$C_{14}H_{22}BO_4P$
(3a*S*,4a*S*,7a*S*,7b*S*)-4-Cyclohexylperhydrofuro[2',3':4,5]phospholo[3,2-*b*]furan-2,6-dione-BH₃ complex

De = >99%, ee = >99%
 $[\alpha]_D^{21} = +33.5$ (c 5, acetone)
 Source of chirality: natural L-(+)-tartaric acid



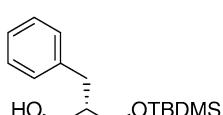
(*R*)-2-Hydroxymethyl-3-phenyl-propyl acetate

Ee = 96% by HPLC (Chiralpak AD-H) or GC
 (CP-Chirasil-DEX CB) after derivatization
 $[\alpha]_D^{20} = +29$ (c 0.9, CHCl₃)
 Source of chirality: *Burkholderia cepacia* lipase catalyzed desymmetrization by acetylation
 Absolute configuration: *R*



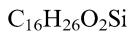
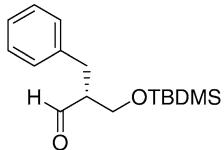
(*S*)-2-Benzyl-3-((tert-butyldimethylsilyl)oxy)-propyl acetate

Ee = 96% by HPLC (Chiralcel OD-H)
 $[\alpha]_D^{20} = +5.2$ (c 1.2, CHCl₃)
 Source of chirality: *Burkholderia cepacia* lipase
 Absolute configuration: *S*



$C_{16}H_{28}O_2Si$
(*S*)-2-Benzyl-3-((tert-butyldimethylsilyl)oxy)-propanol

Ee = 96% by HPLC (Chiralcel OD-H)
 $[\alpha]_D^{20} = -16$ (c 1.1, CHCl₃)
 Source of chirality: *Burkholderia cepacia* lipase
 Absolute configuration: *S*



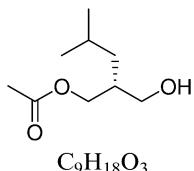
(R)-2-Benzyl-3((tert-butyldimethylsilyl)oxy)-propanal

Ee = 92% by GC (CP-Chirasil-DEX CB)

[α]_D²⁰ = -54 (c 0.80, CHCl₃)

Source of chirality: *Burkholderia cepacia* lipase

Absolute configuration: *R*



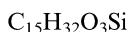
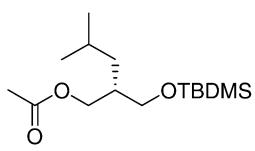
(R)-2-Hydroxymethyl-4-methylpentyl acetate

Ee = 96% by GC (CP-Chirasil-DEX CB) after derivatization

[α]_D²⁰ = +17 (c 0.99, CHCl₃)

Source of chirality: *Pseudomonas fluorescens* lipase catalyzed desymmetrization by acetylation

Absolute configuration: *R*



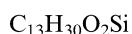
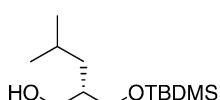
(S)-4-Methyl-2-((tert-butyldimethylsilyl)oxy)methyl-pentyl acetate

Ee = 96% by GC (CP-Chirasil-DEX CB)

[α]_D²⁰ = -0.5 (c 1.0, CHCl₃)

Source of chirality: *Pseudomonas fluorescens* lipase

Absolute configuration: *S*



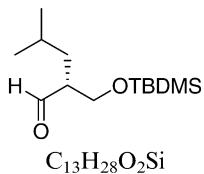
(S)-2-((tert-Butyldimethylsilyl)oxy)methyl-4-methylpentanol

Ee = 92% by GC (CP-Chirasil-DEX CB)

[α]_D²⁰ = -17 (c 0.76, CHCl₃)

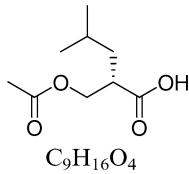
Source of chirality: *Pseudomonas fluorescens* lipase

Absolute configuration: *S*

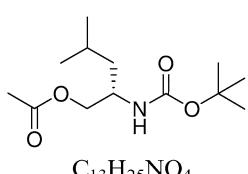


(R)-2-((tert-Butyldimethylsilyl)oxy)methyl)-4-methylpentanal

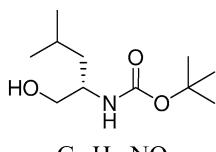
Ee = 92% by GC (CP-Chirasil-DEX CB)

 $[\alpha]_D^{20} = -22$ (c 0.83, CHCl₃)Source of chirality: *Pseudomonas fluorescence* lipaseAbsolute configuration: *R*

(S)-2-(Acetyloxymethyl)-4-methylpentanoic acid

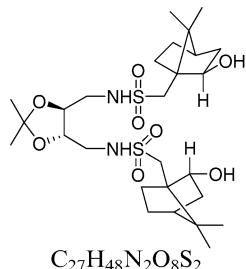
Ee not determined ($\leq 88\%$) $[\alpha]_D^{20} = +4.3$ (c 1.0, CHCl₃)Source of chirality: *Burkholderia cepacia* lipaseAbsolute configuration: *S*

(S)-2-(tert-Butoxycarbonylaminoo)-4-methylpentyl acetate

Ee not determined ($\leq 88\%$) $[\alpha]_D^{20} = -28$ (c 1.0, CHCl₃)Source of chirality: *Burkholderia cepacia* lipaseAbsolute configuration: *S*

(S)-2-(tert-Butoxycarbonylaminoo)-4-methylpentanol

Ee not determined ($\leq 88\%$) $[\alpha]_D^{20} = -22$ (c 0.95, CHCl₃)Source of chirality: *Burkholderia cepacia* lipaseAbsolute configuration: *S*



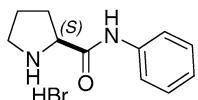
C-(1*S*,2*R*,4*S*-2-Hydroxy-7,7-dimethyl-bicyclo[2.2.1]hept-1-yl)-*N*-{4*S*,5*S*-5-[(1*S*,2*R*,4*S*-2-hydroxy-7,7-dimethyl-bicyclo[2.2.1]hept-1-ylmethanesulfonylamino)-methyl]-2,2-dimethyl-[1,3]dioxolan-4-ylmethyl}-methanesulfonamide

Ee = 100%

$[\alpha]_D^{25} = -42.6$ (*c* 0.5, CHCl₃)

$[\alpha]_D^{20} = -18.0$ (*c* 0.38, MeOH)

Source of chirality: commercially available L-proline



(*S*)-2-(Phenylcarbamoyl)pyrrolidinium bromide

$[\alpha]_D^{20} = -29.0$ (*c* 0.61, MeOH)

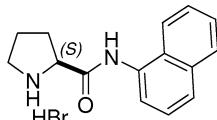
Source of chirality: commercially available L-proline



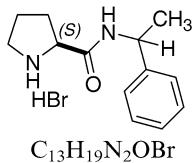
(*S*)-2-(Benzylcarbamoyl)pyrrolidinium bromide

$[\alpha]_D^{20} = -16.0$ (*c* 0.54, MeOH)

Source of chirality: commercially available L-proline



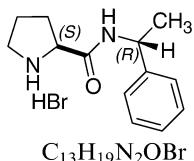
(*S*)-2-(Naphth-1'-ylcarbamoyl)pyrrolidinium bromide



(2S,1'R/S)-2-(1'-Phenylethylcarbamoyl)pyrrolidinium bromide

 $[\alpha]_D^{20} = -28.5$ (c 0.56, MeOH)

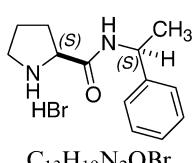
Source of chirality: commercially available L-proline



(2S,1'R)-2-(1'-Phenylethylcarbamoyl)pyrrolidinium bromide

 $[\alpha]_D^{20} = +39.0$ (c 0.34, MeOH)

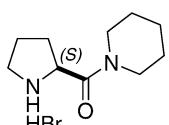
Source of chirality: commercially available L-proline



(2S,1'S)-2-(1'-Phenylethylcarbamoyl)pyrrolidinium bromide

 $[\alpha]_D^{20} = -114.8$ (c 0.25, MeOH)

Source of chirality: commercially available L-proline



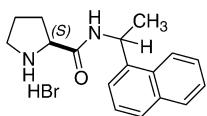
(S)-2-(Piperidine-1'-carbonyl)pyrrolidinium bromide

 $[\alpha]_D^{20} = -53.0$ (c 0.54, MeOH)

Source of chirality: commercially available L-proline

$[\alpha]_D^{20} = -17.5$ (*c* 0.89, MeOH)

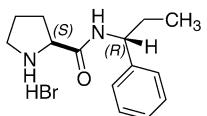
Source of chirality: commercially available L-proline



(2S,1'R/S)-2-(1'-Naphth-1"-yl-ethylcarbamoyl)-pyrrolidinium bromide

 $[\alpha]_D^{20} = +42.0$ (*c* 0.39, MeOH)

Source of chirality: commercially available L-proline



(2S,1'R)-2-(1'-Phenylpropylcarbamoyl)pyrrolidinium bromide

 $[\alpha]_D^{20} = +1.5$ (*c* 0.80, MeOH)

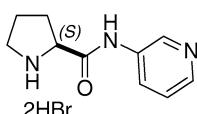
Source of chirality: commercially available L-proline



(S)-2-(Pyridinium-2'-ylcarbamoyl)pyrrolidinium dibromide

 $[\alpha]_D^{20} = +4.0$ (*c* 0.70, MeOH)

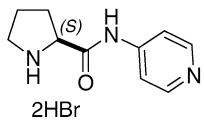
Source of chirality: commercially available L-proline



(S)-2-(Pyridinium-3'-ylcarbamoyl)pyrrolidinium dibromide

$[\alpha]_D^{20} = +2.5$ (*c* 0.65, MeOH)

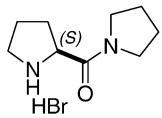
Source of chirality: commercially available L-proline



(S)-2-(Pyridinium-4'-ylcarbamoyl)pyrrolidinium dibromide

 $[\alpha]_D^{20} = -55.5$ (*c* 0.80, MeOH)

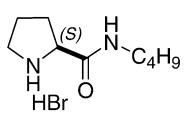
Source of chirality: commercially available L-proline



(S)-2-(Pyrrolidine-1'-carbonyl)pyrrolidinium bromide

 $[\alpha]_D^{20} = -14.5$ (*c* 0.29, MeOH)

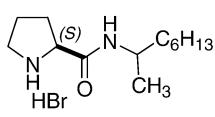
Source of chirality: commercially available L-proline



(S)-2-(Butylcarbamoyl)pyrrolidinium bromide

 $[\alpha]_D^{20} = -15.5$ (*c* 0.62, MeOH)

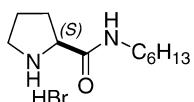
Source of chirality: commercially available L-proline



(S)-2-(1'-Methylheptylcarbamoyl)pyrrolidinium bromide

$[\alpha]_D^{20} = -21.0$ (c 0.27, MeOH)

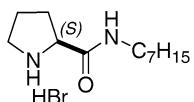
Source of chirality: commercially available L-proline

 $C_{11}H_{23}N_2OBr$

(S)-2-(Hexylcarbamoyl)pyrrolidinium bromide

 $[\alpha]_D^{20} = -29.0$ (c 1.43, MeOH)

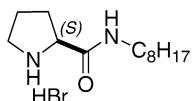
Source of chirality: commercially available L-proline

 $C_{12}H_{25}N_2OBr$

(S)-2-(Heptylcarbamoyl)pyrrolidinium bromide

 $[\alpha]_D^{20} = -19.0$ (c 0.52, MeOH)

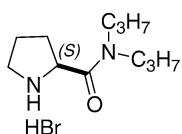
Source of chirality: commercially available L-proline

 $C_{13}H_{27}N_2OBr$

(S)-2-(Octylcarbamoyl)pyrrolidinium bromide

 $[\alpha]_D^{20} = -40.0$ (c 0.33, MeOH)

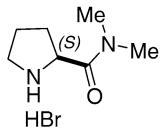
Source of chirality: commercially available L-proline

 $C_{10}H_{23}N_2OBr$

(S)-2-(N,N-Dipropylcarbamoyl)pyrrolidinium bromide

$[\alpha]_D^{20} = -41.0$ (c 0.44, MeOH)

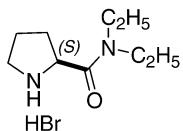
Source of chirality: commercially available L-proline



(S)-2-(N,N-Dimethylcarbamoyl)pyrrolidinium bromide

 $[\alpha]_D^{20} = -41.6$ (c 0.31, MeOH)

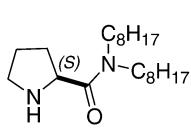
Source of chirality: commercially available L-proline



(S)-2-(N,N-Diethylcarbamoyl)pyrrolidinium bromide

 $[\alpha]_D^{20} = -26.0$ (c 0.49, MeOH)

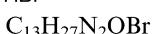
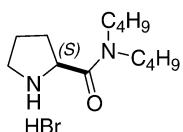
Source of chirality: commercially available L-proline



(S)-2-(N,N-Dioctylcarbamoyl)pyrrolidinium bromide

 $[\alpha]_D^{20} = -38.0$ (c 0.33, MeOH)

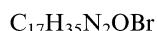
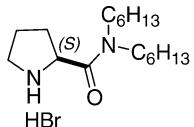
Source of chirality: commercially available L-proline



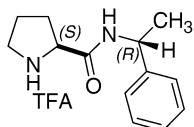
(S)-2-(N,N-Dibutylcarbamoyl)pyrrolidinium bromide

$[\alpha]_D^{20} = -17.5$ (c 0.68, MeOH)

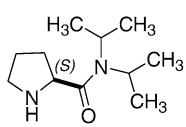
Source of chirality: commercially available L-proline

(S)-2-(*N,N*-Dihexylcarbamoyl)pyrrolidinium bromide
 $[\alpha]_D^{20} = +29.5$ (c 0.15, MeOH)

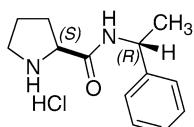
Source of chirality: commercially available L-proline

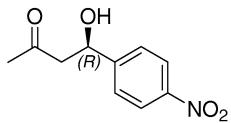
(2*S*,1'*R*)-2-(1'-Phenylethylcarbamoyl)pyrrolidinium trifluoroacetate
 $[\alpha]_D^{20} = -18.0$ (c 1.19, MeOH)

Source of chirality: commercially available L-proline

(S)-2-(*N,N*-Diisopropylcarbamoyl)pyrrolidinium bromide
 $[\alpha]_D^{20} = -37.0$ (c 0.32, MeOH)

Source of chirality: commercially available L-proline

(2*S*,1'*R*)-2-(1'-Phenylethylcarbamoyl)pyrrolidinium chloride

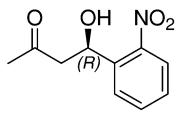


C₁₀H₁₁NO₄
(*R*)-4-Hydroxy-4-(4'-nitrophenyl)butan-2-one

$[\alpha]_D^{20} = +30.0$ (*c* 1.24, CH₂Cl₂)

Ee = 46%

Source of chirality: asymmetric synthesis

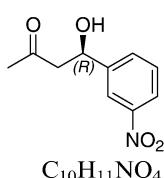


C₁₀H₁₁NO₄
(*R*)-4-Hydroxy-4-(2'-nitrophenyl)butan-2-one

$[\alpha]_D^{20} = -89.0$ (*c* 0.34, CH₂Cl₂)

Ee = 62%

Source of chirality: asymmetric synthesis

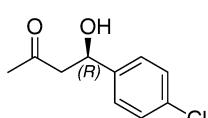


C₁₀H₁₁NO₄
(*R*)-4-Hydroxy-4-(3'-nitrophenyl)butan-2-one

$[\alpha]_D^{20} = +35.0$ (*c* 1.14, CH₂Cl₂)

Ee = 47%

Source of chirality: asymmetric synthesis



C₁₀H₁₁ClO₂
(*R*)-4-Hydroxy-4-(4'-chlorophenyl)butan-2-one

$[\alpha]_D^{20} = +24.4$ (*c* 0.94, CH₂Cl₂)

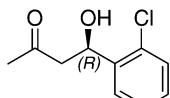
Ee = 36%

Source of chirality: asymmetric synthesis

$[\alpha]_D^{20} = +50.0$ (*c* 1.07, CH₂Cl₂)

Ee = 41%

Source of chirality: asymmetric synthesis

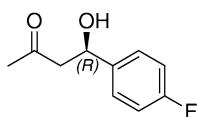


(R)-4-Hydroxy-4-(2'-chlorophenyl)butan-2-one

 $[\alpha]_D^{20} = +25.9$ (*c* 1.24, CH₂Cl₂)

Ee = 37%

Source of chirality: asymmetric synthesis

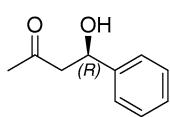


(R)-4-Hydroxy-4-(4'-fluorophenyl)butan-2-one

 $[\alpha]_D^{20} = +26.5$ (*c* 0.40, CH₂Cl₂)

Ee = 37%

Source of chirality: asymmetric synthesis

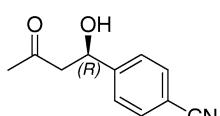


(R)-4-Hydroxy-4-phenylbutan-2-one

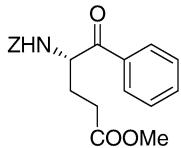
 $[\alpha]_D^{20} = +27.0$ (*c* 0.94, CH₂Cl₂)

Ee = 36%

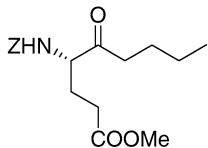
Source of chirality: asymmetric synthesis



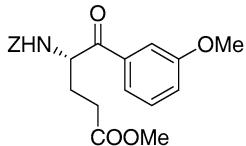
(R)-4-Hydroxy-4-(4'-cyanophenyl)butan-2-one

$[\alpha]_D^{20} = +29.0 (c \ 1, \text{CH}_2\text{Cl}_2)$

 $\text{C}_{20}\text{H}_{21}\text{NO}_5$

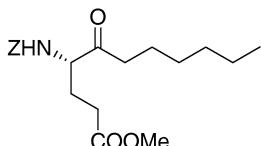
(4S)-Methyl 4-(benzyloxycarbonylamino)-5-oxo-5-phenylpentanoate

 $[\alpha]_D^{20} = +24.4 (c \ 1, \text{CH}_2\text{Cl}_2)$

 $\text{C}_{18}\text{H}_{25}\text{NO}_5$

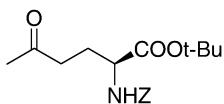
(4S)-Methyl 4-(benzyloxycarbonylamino)-5-oxononanoate

 $[\alpha]_D^{20} = +23.6 (c \ 1, \text{CH}_2\text{Cl}_2)$

 $\text{C}_{21}\text{H}_{23}\text{NO}_6$

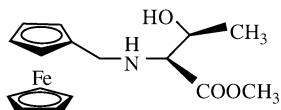
(4S)-Methyl 4-(benzyloxycarbonylamino)-5-(3-methoxyphenyl)-5-oxopentanoate

 $[\alpha]_D^{20} = +13.1 (c \ 1, \text{CH}_2\text{Cl}_2)$

 $\text{C}_{20}\text{H}_{29}\text{NO}_5$

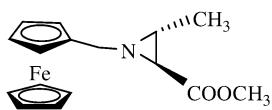
(4S)-Methyl 4-(benzyloxycarbonylamino)-5-oxoundecanoate

$[\alpha]_D^{20} = +6.8 (c \ 0.45, \ \text{CHCl}_3)$

 $\text{C}_{18}\text{H}_{25}\text{NO}_5$
(S)-*tert*-Butyl 2-(benzyloxycarbonylamino)-5-oxo-5-phenylpentanoate
 $[\alpha]_D^{20} = -40.8 (c \ 1.00, \ \text{CHCl}_3)$

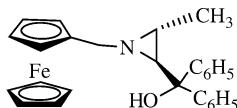
Source of chirality: asymmetric synthesis

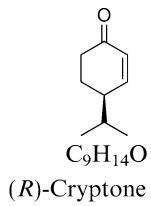
Absolute configuration: (2*S*,3*S*)
 $\text{C}_{16}\text{H}_{21}\text{FeNO}_3$
Methyl (2*S*,3*S*)-*N*-ferrocenylmethyl-allo-L-threomine ester
 $[\alpha]_D^{20} = -86.6 (c \ 0.77, \ \text{CHCl}_3)$

Source of chirality: asymmetric synthesis

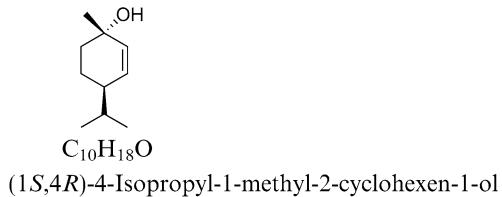
Absolute configuration: (2*S*,3*R*)
 $\text{C}_{16}\text{H}_{19}\text{FeNO}_2$
Methyl (2*S*,3*R*)-1-ferrocenylmethyl-3-methylaziridine-2-carboxylate
 $[\alpha]_D^{20} = -10.0 (c \ 0.46, \ \text{CHCl}_3)$

Source of chirality: asymmetric synthesis

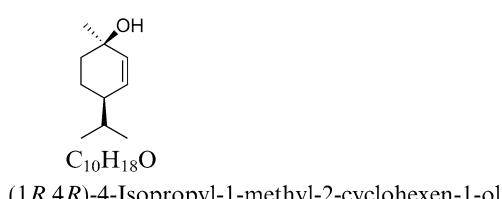
Absolute configuration: (2*S*,3*R*)
 $\text{C}_{27}\text{H}_{27}\text{FeNO}$
(2*S*,3*R*)-1-Ferrocenylmethyl-3-methylaziridin-2-yl(diphenyl)methanol



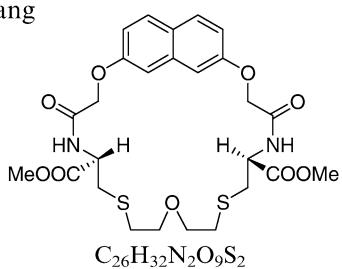
$\text{Ee} = 91.5\%$ (chiral GC)
 $[\alpha]_D^{19} = -86.8$ (*c* 1.06, EtOH)
 Source of chirality: (*S*)-perillyl alcohol
 Absolute configuration: *R*



$\text{Ee} = 93.3\%$ (chiral GC)
 $[\alpha]_D^{19} = -68.7$ (*c* 1.42, hexane)
 Source of chirality: (*S*)-perillyl alcohol
 Absolute configuration: 1*S*,4*R*



$\text{Ee} = 98.7\%$ (chiral GC)
 $[\alpha]_D^{22} = +10.3$ (*c* 4.28, hexane)
 Source of chirality: (*R*)-limonene oxide
 Absolute configuration: 1*R*,4*R*

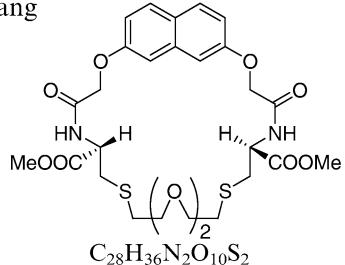


(6*R*,16*R*)-6,16-Methoxycarbonyl-2,11,20-trioxa-8,14-dithia-5,17-diaza-tricyclo[19.5.3.0^24.28]nonacosa-1(26),21(29),22,24,27-pentaene-4,18-dione

$[\alpha]_D^{20} = +43.0$ (*c* 0.05, CHCl_3)
 Source of chirality: L-cysteine
 Absolute configuration: (*R*,*R*)

Haijuan Qin, Yongbing He,* Guangyan Qing, Chenguang Hu and
Xi Yang

Tetrahedron: Asymmetry 17 (2006) 2143



(6*R*,19*R*)-6,19-Methoxycarbonyl-2,11,14,23-tetraoxa-8,17-dithia-5,20-diaza-tricyclo[22.5.3.0^{27,31}]dotriaconta-1(29),24(32),25,27,30-pentaene-4,21-dione

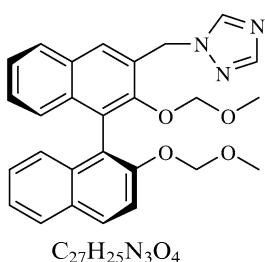
$[\alpha]_D^{20} = +57.4$ (*c* 0.05, CHCl₃)

Source of chirality: L-cysteine

Absolute configuration: (*R,R*)

Bing Liu, Fu-Yong Jiang, Hai-Bin Song and Jin-Shan Li*

Tetrahedron: Asymmetry 17 (2006) 2149



(*S*)-3-[(1*H*-1,2,4-Triazol-1-yl)methyl]-2,2'-bis(methoxymethyl)-1,1'-binaphthol

Ee = 100%

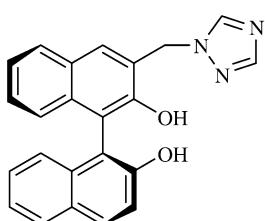
$[\alpha]_D^{25} = -56.6$ (*c* 1.4, CH₂Cl₂)

Source of chirality: resolution

Absolute configuration: *S*

Bing Liu, Fu-Yong Jiang, Hai-Bin Song and Jin-Shan Li*

Tetrahedron: Asymmetry 17 (2006) 2149



(*S*)-3-[(1*H*-1,2,4-Triazol-1-yl)methyl]-1,1'-binaphthol

Ee = 100%

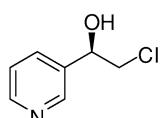
$[\alpha]_D^{25} = -29.3$ (*c* 0.3, CH₂Cl₂)

Source of chirality: resolution

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(*R*)-3-(1-Hydroxy-2-chloroethyl)-pysidine

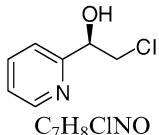
Ee = 96%

$[\alpha]_D^{25} = -42$ (*c* 0.81, methanol)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154

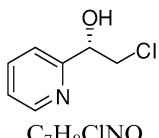


(*R*)-2-(1-Hydroxy-2-chloroethyl)-pyridine

Ee = 96%
 $[\alpha]_D^{25} = -39$ (*c* 0.94, CH₂Cl₂)
 Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154

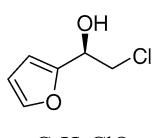


(*S*)-2-(1-Hydroxy-2-chloroethyl)-pyridine

Ee = >99%
 $[\alpha]_D^{25} = +62$ (*c* 0.94, methanol)
 Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154

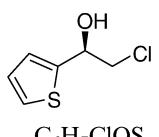


(*R*)-2-(1-Hydroxy-2-chloroethyl)-furan

Ee = 98%
 $[\alpha]_D^{25} = -18$ (*c* 0.97, methanol)
 Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154

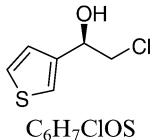


(*R*)-2-(1-Hydroxy-2-chloroethyl)-thiophene

Ee = 98%
 $[\alpha]_D^{25} = -31$ (*c* 0.91, methylene chloride)
 Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
 Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
 William R. Perrault, Richard A. Hohler, Lester A. Dolak,
 Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(*R*)-3-(1-Hydroxy-2-chloroethyl)-thiophene

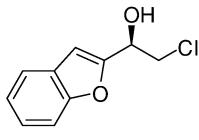
Ee = 96%

$[\alpha]_D^{25} = -40$ (*c* 0.85, methylene chloride)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
 Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
 William R. Perrault, Richard A. Hohler, Lester A. Dolak,
 Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(*R*)-2-(1-Hydroxy-2-chloroethyl)-benzofuran

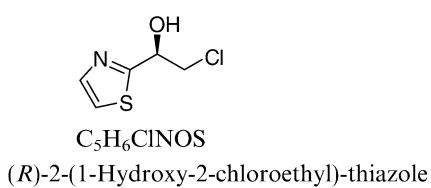
Ee = 98%

$[\alpha]_D^{25} = -31$ (*c* 1.03, chloroform)

Absolute configuration: *R*

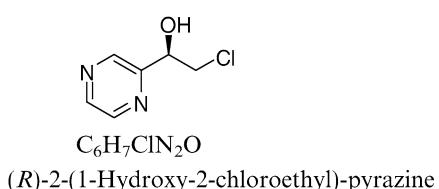
Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
 Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
 William R. Perrault, Richard A. Hohler, Lester A. Dolak,
 Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
 Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
 William R. Perrault, Richard A. Hohler, Lester A. Dolak,
 Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(*R*)-2-(1-Hydroxy-2-chloroethyl)-pyrazine

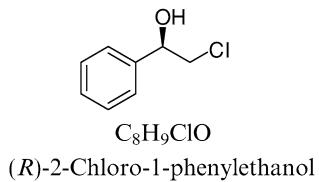
Ee = 76%

$[\alpha]_D^{25} = -40$ (*c* 1.16, methylene chloride)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

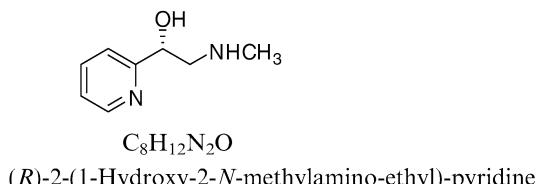
Tetrahedron: Asymmetry 17 (2006) 2154



$Ee = >99\%$
 $[\alpha]_D^{25} = -50$ (*c* 0.87, methylene chloride)
 Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

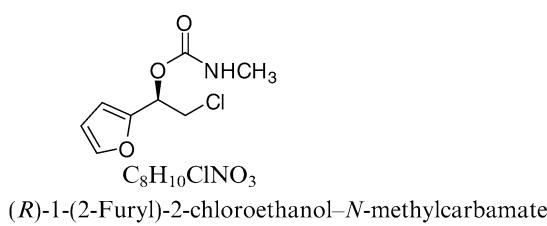
Tetrahedron: Asymmetry 17 (2006) 2154



$Ee = >96\%$
 $[\alpha]_D^{25} = +49$ (*c* 0.36, methylene chloride)
 Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

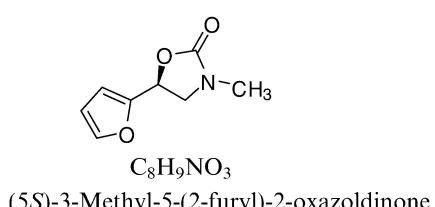
Tetrahedron: Asymmetry 17 (2006) 2154



$Ee = 98\%$
 $[\alpha]_D^{25} = -102$ (*c* 0.98, chloroform)
 Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

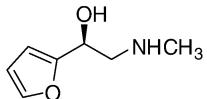
Tetrahedron: Asymmetry 17 (2006) 2154



$Ee = 97\%$
 $[\alpha]_D^{25} = +109$ (*c* 0.97, methylene chloride)
 Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154

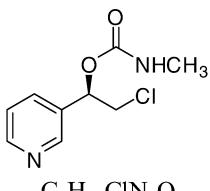


$C_8H_9NO_3$
(S)-N-Methyl-1-(2-furyl)-2-aminoethanol

Ee = >96%
 $[\alpha]_D^{25} = -32$ (*c* 0.91, ethanol)
Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154

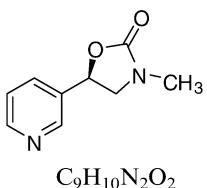


$C_9H_{11}ClN_2O_2$
(R)-1-(3-Pyridyl)-2-chloroethanol-N-methylcarbamate

Ee = 94.6%
 $[\alpha]_D^{25} = -33$ (*c* 0.92, chloroform)
Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154

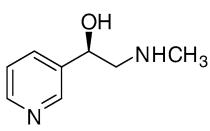


$C_9H_{10}N_2O_2$
(5*R*)-3-Methyl-5-(3-pyridyl)-2-oxazolidinone

Ee = 97.6%
 $[\alpha]_D^{25} = -39$ (*c* 1.00, chloroform)
Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154

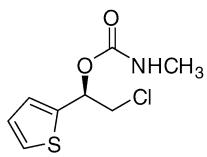


$C_8H_{12}N_2O$
(R)-N-Methyl-1-(3-pyridyl)-2-aminoethanol

Ee = >96%
 $[\alpha]_D^{25} = -67$ (*c* 0.93, methylene chloride)
Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(*R*)-1-(2-Thienyl)-2-chloroethanol-*N*-methylcarbamate

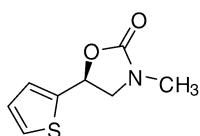
Ee = 92.4%

[α]_D²⁵ = -61 (c 0.73, methylene chloride)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
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Tetrahedron: Asymmetry 17 (2006) 2154



(5*S*)-3-Methyl-5-(2-thienyl)-2-oxazoldinone

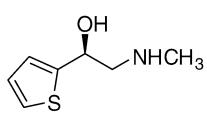
Ee = 98.4%

[α]_D²⁵ = +90 (c 0.96, methylene chloride)

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(*S*)-*N*-Methyl-1-(2-thienyl)-2-aminoethanol

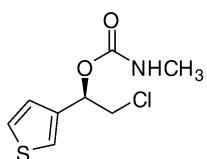
Ee = >98%

[α]_D²⁵ = -24 (c 1.06, methylene chloride)

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
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Tetrahedron: Asymmetry 17 (2006) 2154



(*R*)-1-(3-Thienyl)-2-chloroethanol-*N*-methylcarbamate

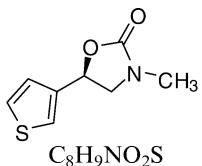
Ee = 92.8%

[α]_D²⁵ = -59 (c 0.86, methylene chloride)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(5*R*)-3-Methyl-5-(3-thienyl)-2-oxazolidinone

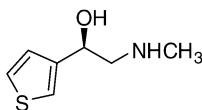
Ee = >99%

$[\alpha]_D^{25} = +13$ (*c* 0.99, chloroform)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
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Tetrahedron: Asymmetry 17 (2006) 2154



(*R*)-*N*-Methyl-1-(3-thienyl)-2-aminoethanol

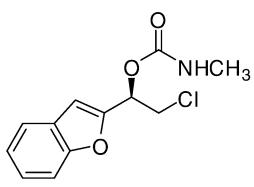
Ee = >99%

$[\alpha]_D^{25} = -48$ (*c* 1.07, chloroform)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
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Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(*R*)-1-(2-Benzofuranyl)-2-chloroethanol-*N*-methylcarbamate

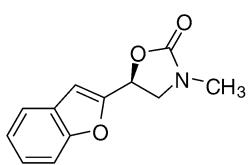
Ee = 98%

$[\alpha]_D^{25} = -110$ (*c* 0.95, chloroform)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(5*S*)-3-Methyl-5-(2-benzofuranyl)-2-oxazolidinone

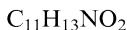
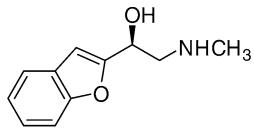
Ee = 92%

$[\alpha]_D^{25} = +37$ (*c* 1.00, chloroform)

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(*S*)-*N*-Methyl-1-(2-benzofuranyl)-2-aminoethanol

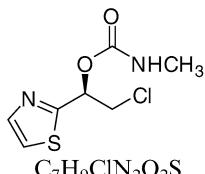
Ee = 92%

[α]_D²⁵ = -30 (c 1.02, chloroform)

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
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Tetrahedron: Asymmetry 17 (2006) 2154



(*R*)-1-(2-Thiazolyl)-2-chloroethanol-*N*-methylcarbamate

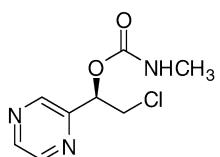
Ee = >99%

[α]_D²⁵ = -17 (c 1.10, methylene chloride)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
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Tetrahedron: Asymmetry 17 (2006) 2154



(*R*)-1-(2-Pyrazinyl)-2-chloroethanol-*N*-methylcarbamate

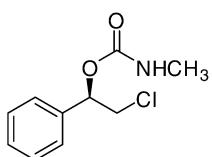
Ee = 82%

[α]_D²⁵ = -29 (c 1.01, methylene chloride)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
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Tetrahedron: Asymmetry 17 (2006) 2154



(*R*)-1-Phenyl-2-chloroethanol-*N*-methylcarbamate

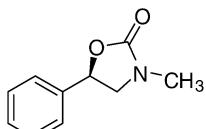
Ee = 98%

[α]_D²⁵ = -15 (c 0.93, methylene chloride)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(5*R*)-3-Methyl-5-phenyl-2-oxazolidinone

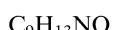
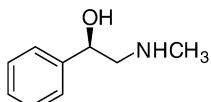
Ee = >98%

[α]_D²⁵ = -41 (c 0.90, chloroform)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(*R*)-*N*-Methyl-1-phenyl-2-aminoethanol

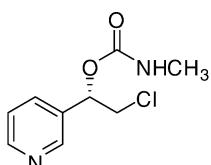
Ee = >98%

[α]_D²⁵ = -38 (c 0.66, EtOH)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(*S*)-1-(3-Pyridyl)-2-chloroethanol-*N*-methylcarbamate

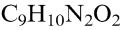
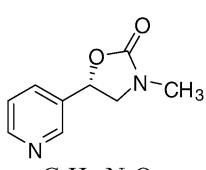
Ee = 96.6%

[α]_D²⁵ = +33 (c 0.96, chloroform)

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(5*S*)-3-Methyl-5-(3-pyridyl)-2-oxazolidinone

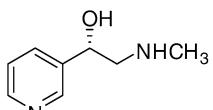
Ee = 96.6%

[α]_D²⁵ = +40 (c 0.91, chloroform)

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154

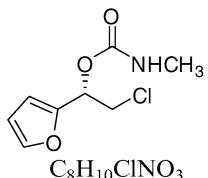


(S)-N-Methyl-1-(3-pyridyl)-2-aminoethanol

Ee = 97.4%

[α]_D²⁵ = +39 (c 0.83, EtOH)

Absolute configuration: *S*



(S)-1-(2-Furyl)-2-chloroethanol-N-methylcarbamate

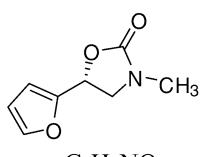
Ee = 98%

[α]_D²⁵ = +94 (c 1.02, methylene chloride)

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(5*R*)-3-Methyl-5-(2-furyl)-2-oxazolidinone

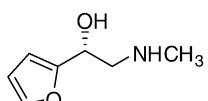
Ee = 98%

[α]_D²⁵ = +106 (c 1.01, methylene chloride)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(*R*)-N-Methyl-1-(2-furyl)-2-aminoethanol

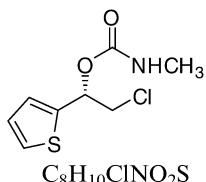
Ee = >96%

[α]_D²⁵ = +32 (c 0.96, EtOH)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



C₈H₁₀ClNO₂S

(S)-1-(2-Thienyl)-2-chloroethanol-*N*-methylcarbamate

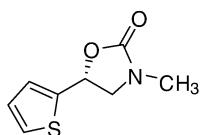
Ee = 97%

[α]_D²⁵ = +58 (c 0.97, methylene chloride)

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



C₈H₉NO₂S

(5*R*)-3-Methyl-5-(2-thienyl)-2-oxazoldinone

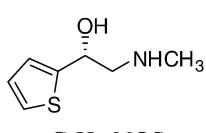
Ee = >98%

[α]_D²⁵ = -94 (c 1.04, methylene chloride)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



C₇H₁₁NOS

(*R*)-*N*-Methyl-1-(2-thienyl)-2-aminoethanol

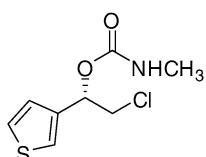
Ee = >98%

[α]_D²⁵ = +26 (c 1.05, methylene chloride)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



C₈H₁₀ClNO₂S

(S)-1-(3-Thienyl)-2-chloroethanol-*N*-methylcarbamate

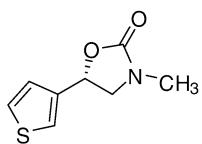
Ee = 97%

[α]_D²⁵ = +57 (c 0.73, methylene chloride)

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(5S)-3-Methyl-5-(3-thienyl)-2-oxazolidinone

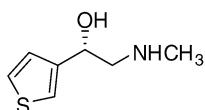
Ee = 97%

[α]_D²⁵ = -14 (c 1.05, chloroform)

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(*S*)-*N*-Methyl-1-(3-thienyl)-2-aminoethanol

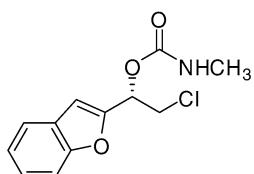
Ee = >99%

[α]_D²⁵ = +48 (c 0.86, chloroform)

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(*S*)-1-(2-Benzofuranyl)-2-chloroethanol-*N*-methylcarbamate

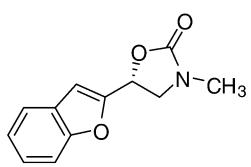
Ee = 98%

[α]_D²⁵ = +101 (c 0.85, chloroform)

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(*5R*)-3-Methyl-5-(2-benzofuranyl)-2-oxazolidinone

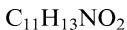
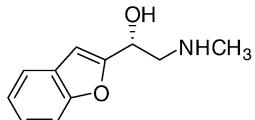
Ee = 92%

[α]_D²⁵ = -38 (c 0.95, chloroform)

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(*R*)-*N*-Methyl-1-(2-benzofuranyl)-2-aminoethanol

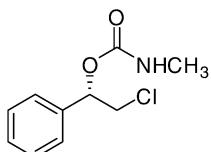
Ee = 92%

[α]_D²⁵ = +31 (c 1.05, chloroform)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
William R. Perrault, Richard A. Hohler, Lester A. Dolak,
Matthew R. Hester and Eric P. Seest

Tetrahedron: Asymmetry 17 (2006) 2154



(*S*)-1-Phenyl-2-chloroethanol-*N*-methylcarbamate

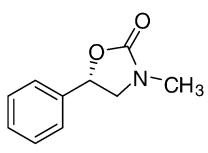
Ee = 97%

[α]_D²⁵ = +13 (c 1.01, methylene chloride)

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
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Tetrahedron: Asymmetry 17 (2006) 2154



(5*S*)-3-Methyl-5-phenyl-2-oxazolidinone

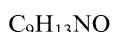
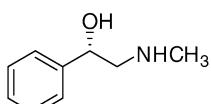
Ee = 96%

[α]_D²⁵ = +39 (c 1.03, chloroform)

Absolute configuration: *S*

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(*S*)-*N*-Methyl-1-phenyl-2-aminoethanol

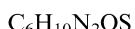
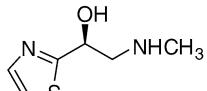
Ee = 97%

[α]_D²⁵ = +39 (c 0.83, EtOH)

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
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Tetrahedron: Asymmetry 17 (2006) 2154



(S)-2-(1-Hydroxy-2-N-methylamino-ethyl)-thiazole

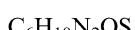
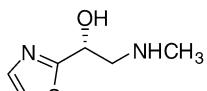
Ee = >98%

[α]_D²⁵ = -19 (c 1.02, methylene chloride)

Absolute configuration: *S*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
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Tetrahedron: Asymmetry 17 (2006) 2154



(R)-2-(1-Hydroxy-2-N-methylamino-ethyl)-thiazole

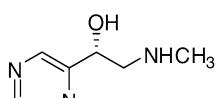
Ee = >98%

[α]_D²⁵ = +31 (c 1.02, DMSO)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
Wendy D. Taylor, Steven E. Heasley, Paul M. Herrinton,*
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Tetrahedron: Asymmetry 17 (2006) 2154



(R)-2-(1-Hydroxy-2-N-methylamino-ethyl)-pyrazine

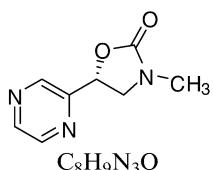
Ee = 77%

[α]_D²⁵ = +58 (c 1.02, methanol)

Absolute configuration: *R*

Steven P. Tanis,* Bruce R. Evans, James A. Nieman, Timothy T. Parker,
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Tetrahedron: Asymmetry 17 (2006) 2154



(5*R*)-3-Methyl-5-(2-pyrazinyl)-2-oxazoldinone

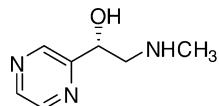
Ee = >96%

[α]_D²⁵ = +20 (c 0.95, methylene chloride)

Absolute configuration: *R*

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C₇H₁₁N₃O
(*R*)-2-(1-Hydroxy-2-*N*-methylamino-ethyl)-pyrazine

Ee => 93%

[α]_D²⁵ = +66 (c 0.95, methanol)

Absolute configuration: *R*