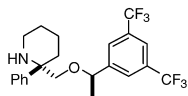


Stereochemistry abstracts

Dong Xiao,* Cheng Wang, Anandan Palani, Gregory Reichard,
Robert Aslanian, Neng-Yang Shih and Alexei Buevich

Tetrahedron: Asymmetry 17 (2006) 2596



$C_{22}H_{23}F_6NO$

2-(S)-[1-(R)-(3,5-Bis-trifluoromethyl-phenyl)-ethoxymethyl]-2-phenyl-piperidine

Ee = 100%

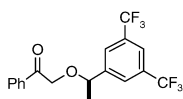
$[\alpha]_D^{24} = +23.2$ (c 1.553, MeOH)

Source of chirality: asymmetric synthesis

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

Dong Xiao,* Cheng Wang, Anandan Palani, Gregory Reichard,
Robert Aslanian, Neng-Yang Shih and Alexei Buevich

Tetrahedron: Asymmetry 17 (2006) 2596



$C_{18}H_{14}F_6O_2$

2-[1-(R)-(3,5-Bis-trifluoromethyl-phenyl)-ethoxy]-1-phenyl-ethanone

Ee = 100%

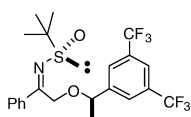
$[\alpha]_D^{24} = +84.7$ (c 1.00, EtOAc)

Source of chirality: asymmetric synthesis

Absolute configuration: (R)

Dong Xiao,* Cheng Wang, Anandan Palani, Gregory Reichard,
Robert Aslanian, Neng-Yang Shih and Alexei Buevich

Tetrahedron: Asymmetry 17 (2006) 2596



$C_{22}H_{23}F_6NO_2S$

2-Methyl-propane-2-S(S)-sulfinic acid{2-[1-(R)-(3,5-bistrifluoromethyl-phenyl)-ethoxy]-1-phenyl-ethylidene}-amide

Ee = 100%

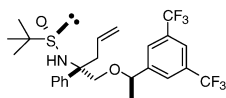
$[\alpha]_D^{24} = +50.6$ (c 2.00, EtOAc)

Source of chirality: asymmetric synthesis

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

Dong Xiao,* Cheng Wang, Anandan Palani, Gregory Reichard,
Robert Aslanian, Neng-Yang Shih and Alexei Buevich

Tetrahedron: Asymmetry 17 (2006) 2596



$C_{22}H_{19}F_6NO_2S$

2-Methyl-propane-2-S(S)-sulfinic acid{1-(S)-[1-(R)-(3,5-bistrifluoromethyl-phenyl)-ethoxymethyl]-1-phenyl-but-3-enyl}-amide

Ee = 100%

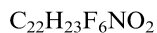
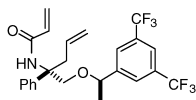
$[\alpha]_D^{24} = -4.9$ (c 2.00, EtOAc)

Source of chirality: asymmetric synthesis

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

Dong Xiao,* Cheng Wang, Anandan Palani, Gregory Reichard,
Robert Aslanian, Neng-Yang Shih and Alexei Buevich

Tetrahedron: Asymmetry 17 (2006) 2596



N-{1-(*S*)-[1-(*R*)-(3,5-Bis-trifluoromethyl-phenyl)-ethoxymethyl]-1-phenyl-but-3-enyl}-acrylamide

Ee = 100%

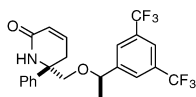
$[\alpha]_D^{24} = +9.2$ (*c* 1.00, EtOAc)

Source of chirality: asymmetric synthesis

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

Dong Xiao,* Cheng Wang, Anandan Palani, Gregory Reichard,
Robert Aslanian, Neng-Yang Shih and Alexei Buevich

Tetrahedron: Asymmetry 17 (2006) 2596



6(*S*)-[1-(*R*)-(3,5-Bis-trifluoromethyl-phenyl)-ethoxymethyl]-6-phenyl-5,6-dihydro-1*H*-pyridin-2-one

Ee = 100%

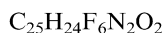
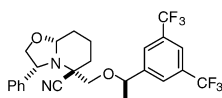
$[\alpha]_D^{24} = -7.5$ (*c* 1.00, EtOAc)

Source of chirality: asymmetric synthesis

Absolute configuration: 6(*S*),1'(*R*)

Dong Xiao,* Cheng Wang, Anandan Palani, Gregory Reichard,
Robert Aslanian, Neng-Yang Shih and Alexei Buevich

Tetrahedron: Asymmetry 17 (2006) 2596



5-[1-(*R*)-(3,5-Bis-trifluoromethyl-phenyl)-ethoxymethyl]-3-(*R*)-9-(*R*)phenyl-8a-(*R*)-hexahydro-oxazolo[3,2-*a*]pyridine-5-(*S*)-carbonitrile

Ee = 100%

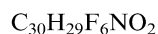
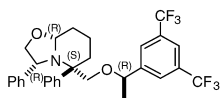
$[\alpha]_D^{24} = -103.8$ (*c* 1.00, EtOAc)

Source of chirality: asymmetric synthesis

Absolute configuration: 3(*R*),5(*S*),8a(*R*),1'(*R*)

Dong Xiao,* Cheng Wang, Anandan Palani, Gregory Reichard,
Robert Aslanian, Neng-Yang Shih and Alexei Buevich

Tetrahedron: Asymmetry 17 (2006) 2596



5-[1-(*R*)-(3,5-Bis-trifluoromethyl-phenyl)-ethoxymethyl]-3-(*R*),5-(*S*)-diphenyl-8a-(*R*)-hexahydro-oxazolo[3,2-*a*]pyridine

Ee = 100%

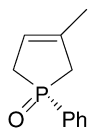
$[\alpha]_D^{24} = -58.1$ (*c* 1.00, EtOAc)

Source of chirality: asymmetric synthesis

Absolute configuration: 3(*R*),5(*S*),8a(*R*),1'(*R*)

Tibor Novák,* József Schindler, Viktória Ujj, Mátyás Czugler,
Elemér Fogassy and György Keglevich

Tetrahedron: Asymmetry 17 (2006) 2599



C₁₁H₁₃OP

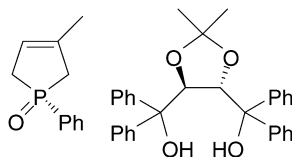
(+)-(S)-1-Phenyl-3-methyl-3-phospholene 1-oxide

Ee = 99.0%

[α]_D²⁵ = +36.6 (c 1, CHCl₃)

Tibor Novák,* József Schindler, Viktória Ujj, Mátyás Czugler,
Elemér Fogassy and György Keglevich

Tetrahedron: Asymmetry 17 (2006) 2599



C₄₂H₄₃O₅P

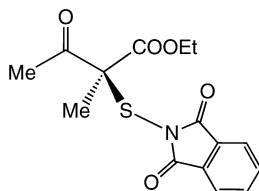
(+)-(S)-1-Phenyl-3-methyl-3-phospholene 1-oxide-(4S,5S)-(+)-4,5-bis(diphenylhydroxymethyl)-2,2-dimethyldioxolane complex

Ee = 99%

[α]_D²⁰ = +56.0 (c 1, CHCl₃)

Shravan K. Srisailam and Antonio Togni*

Tetrahedron: Asymmetry 17 (2006) 2603



C₁₅H₁₅NO₅S

Ethyl 2-(1,3-dioxisoindolin-2-ylthio)-2-methyl-3-oxobutanoate

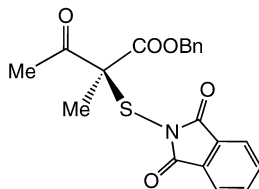
Ee = 41% [HPLC: *Daicel Chiralcel* ODH column,
hexane/*i*PrOH: 98.5/1.5, 0.5 mL/min; ret. times,
88.5 (minor), 100.9 (major) min]

[α]_D = -21.5 (c 10 mg/mL, CH₂Cl₂)

Source of chirality: asymmetric catalysis

Shravan K. Srisailam and Antonio Togni*

Tetrahedron: Asymmetry 17 (2006) 2603



C₂₀H₁₇NO₅S

Benzyl 2-(1,3-dioxisoindolin-2-ylthio)-2-methyl-3-oxobutanoate

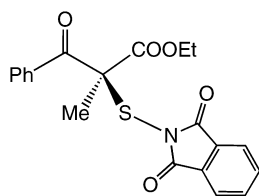
Ee = 42% [HPLC: *Chiralpak AS* column,
hexane/*i*PrOH: 96/4, 0.5 mL/min; ret. times,
69.3 (major), 75.8 (minor) min]

[α]_D = -23.1 (c 10 mg/mL, CH₂Cl₂)

Source of chirality: asymmetric catalysis

Shravan K. Srisailam and Antonio Togni*

Tetrahedron: Asymmetry 17 (2006) 2603



$C_{20}H_{17}NO_5S$

Ethyl 2-(1,3-dioxisoindolin-2-ylthio)-2-methyl-3-oxo-3-phenylpropanoate

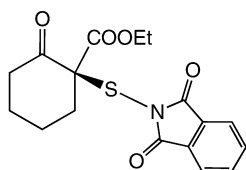
Ee = 35% [HPLC: *Daicel Chiralcel ODH* column, hexane/*PrOH*: 98/2, 0.5 mL/min; ret. times, 66.7 (minor), 99.5 (major) min]

$[\alpha]_D = +19.5$ (c 5.75 mg/mL, CH_2Cl_2)

Source of chirality: asymmetric catalysis

Shravan K. Srisailam and Antonio Togni*

Tetrahedron: Asymmetry 17 (2006) 2603



$C_{17}H_{17}NO_5S$

Ethyl 1-(1,3-dioxisoindolin-2-ylthio)-2-oxocyclohexanecarboxylate

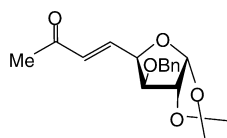
Ee = 60% [HPLC: *Daicel Chiralcel ODH* column, hexane/*PrOH*: 90/10, 0.5 mL/min; ret. times, 34.6 (minor), 46.1 (major) min]

$[\alpha]_D = -11.5$ (c 5.2 mg/mL, CH_2Cl_2)

Source of chirality: asymmetric catalysis

Debendra K. Mohapatra,* Siddhartha Ray Chaudhuri,
Gokarneswar Sahoo and Mukund K. Gurjar*

Tetrahedron: Asymmetry 17 (2006) 2609



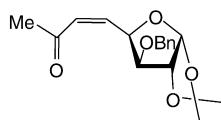
$C_{18}H_{22}O_5$

3-O-Benzyl-5,6,8-trideoxy-1,2-O-isopropylidene- α -D-xylo-oct-5E-enofuranos-7-ulose

$[\alpha]_D^{25} = -63.7$ (c 0.5, $CHCl_3$)

Debendra K. Mohapatra,* Siddhartha Ray Chaudhuri,
Gokarneswar Sahoo and Mukund K. Gurjar*

Tetrahedron: Asymmetry 17 (2006) 2609



$C_{18}H_{22}O_5$

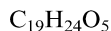
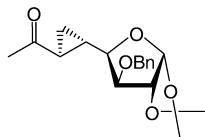
3-O-Benzyl-5,6,8-trideoxy-1,2-O-isopropylidene- α -D-xylo-oct-5Z-enofuranos-7-ulose

$[\alpha]_D^{25} = -37.2$ (c 0.8, $CHCl_3$)

Debendra K. Mohapatra,* Siddhartha Ray Chaudhuri,
Gokarneswar Sahoo and Mukund K. Gurjar*

Tetrahedron: Asymmetry 17 (2006) 2609

$$[\alpha]_D^{25} = +7.2 (c 1.0, \text{CHCl}_3)$$

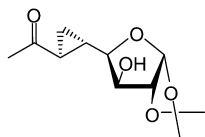


3-*O*-Benzyl-5,6-*C*-methylene-5,6,8-trideoxy-1,2-*O*-isopropylidene-*L*-glycero- β -*L*-iodo-octos-7-ulofuranose

Debendra K. Mohapatra,* Siddhartha Ray Chaudhuri,
Gokarneswar Sahoo and Mukund K. Gurjar*

Tetrahedron: Asymmetry 17 (2006) 2609

$$[\alpha]_D^{25} = +49.4 (c 1.0, \text{CHCl}_3)$$

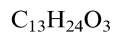
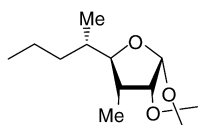


5,6-*C*-Methylene-5,6,8-trideoxy-1,2-*O*-isopropylidene-*L*-glycero- β -*L*-iodo-octos-7-ulofuranose

Debendra K. Mohapatra,* Siddhartha Ray Chaudhuri,
Gokarneswar Sahoo and Mukund K. Gurjar*

Tetrahedron: Asymmetry 17 (2006) 2609

$$[\alpha]_D^{25} = +46.7 (c 1.0, \text{CHCl}_3)$$

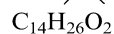
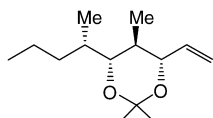


3,5-*C*-Dimethyl-3,5,6,7,8-pentadeoxy-1,2-*O*-isopropylidene- β -*L*-talo-octofuranose

Debendra K. Mohapatra,* Siddhartha Ray Chaudhuri,
Gokarneswar Sahoo and Mukund K. Gurjar*

Tetrahedron: Asymmetry 17 (2006) 2609

$$[\alpha]_D^{25} = +25.6 (c 1.3, \text{CHCl}_3)$$

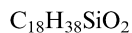
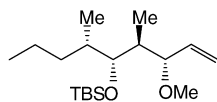


(4*R*,5*S*,6*S*)-2,2,5-Trimethyl-4-((*S*)-pentan-2-yl)-6-vinyl-1,3-dioxane

Debendra K. Mohapatra,* Siddhartha Ray Chaudhuri,
Gokarneswar Sahoo and Mukund K. Gurjar*

Tetrahedron: Asymmetry 17 (2006) 2609

$$[\alpha]_D^{25} = +3.9 (c 1.0, \text{CHCl}_3)$$

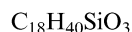
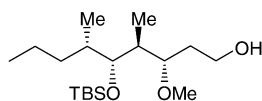


(3*S*,4*S*,5*R*,6*S*)-5-(*tert*-Butyl-dimethyl-silanyloxy)-3-methoxy-4,6-dimethyl-non-1-ene

Debendra K. Mohapatra,* Siddhartha Ray Chaudhuri,
Gokarneswar Sahoo and Mukund K. Gurjar*

Tetrahedron: Asymmetry 17 (2006) 2609

$$[\alpha]_D^{25} = -23.9 (c 0.8, \text{CHCl}_3)$$

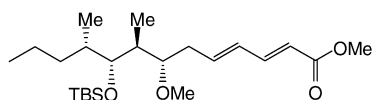


(3*S*,4*S*,5*R*,6*S*)-5-(*tert*-Butyl-dimethyl-silanyloxy)-3-methoxy-4,6-dimethyl-nonan-1-ol

Debendra K. Mohapatra,* Siddhartha Ray Chaudhuri,
Gokarneswar Sahoo and Mukund K. Gurjar*

Tetrahedron: Asymmetry 17 (2006) 2609

$$[\alpha]_D^{25} = -8.0 (c 0.7, \text{CHCl}_3)$$



(7*S*,8*S*,9*R*,10*S*)-9-(*tert*-Butyl-dimethyl-silanyloxy)-7-methoxy-8,10-dimethyl-trideca-2,4-dienoic acid methyl ester

Ashraf A. El-Shehawy

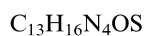
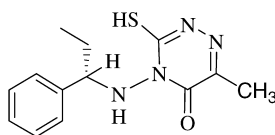
Tetrahedron: Asymmetry 17 (2006) 2617

Ee = 84%

$$[\alpha]_D^{25} = -57.4 (c 1.03, \text{CH}_2\text{Cl}_2)$$

Source of chirality: asymmetric synthesis

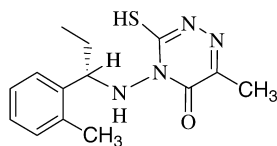
Absolute configuration: *S*



(*S*)-4-(1-Phenylpropyl)amino-3-mercapto-6-methyl-4*H*-1,2,4-triazin-5-one

Ashraf A. El-Shehawy

Tetrahedron: Asymmetry 17 (2006) 2617



$C_{14}H_{18}N_4OS$

(*S*)-4-[1-(2'-Methylphenyl)propyl]amino-3-mercapto-6-methyl-4*H*-1,2,4-triazin-5-one

Ee = 79%

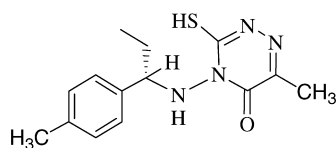
$[\alpha]_D^{25} = -96.8$ (*c* 0.98, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Ashraf A. El-Shehawy

Tetrahedron: Asymmetry 17 (2006) 2617



$C_{14}H_{18}N_4OS$

(*S*)-4-[1-(4'-Methylphenyl)propyl]amino-3-mercapto-6-methyl-4*H*-1,2,4-triazin-5-one

Ee = 87%

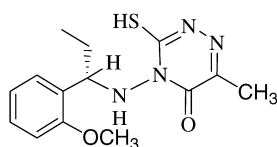
$[\alpha]_D^{25} = -78.1$ (*c* 1.28, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Ashraf A. El-Shehawy

Tetrahedron: Asymmetry 17 (2006) 2617



$C_{14}H_{18}N_4O_2S$

(*S*)-4-[1-(2'-Methoxyphenyl)propyl]amino-3-mercapto-6-methyl-4*H*-1,2,4-triazin-5-one

Ee = 82%

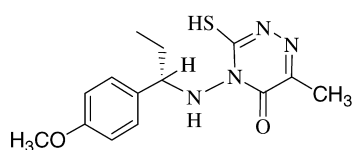
$[\alpha]_D^{25} = -94.5$ (*c* 0.77, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Ashraf A. El-Shehawy

Tetrahedron: Asymmetry 17 (2006) 2617



$C_{14}H_{18}N_4O_2S$

(*S*)-4-[1-(4'-Methoxyphenyl)propyl]amino-3-mercapto-6-methyl-4*H*-1,2,4-triazin-5-one

Ee = 88% (92% after crystallization)

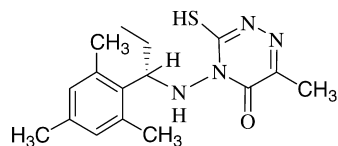
$[\alpha]_D^{25} = -34.6$ (*c* 2.39, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Ashraf A. El-Shehawy

Tetrahedron: Asymmetry 17 (2006) 2617



$C_{16}H_{22}N_4OS$

(*S*)-4-[1-(2',4',6'-Tri-methylphenyl)propyl]amino-3-mercapto-6-methyl-4*H*-1,2,4-triazin-5-one

Ee = 72%

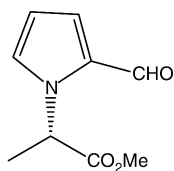
$[\alpha]_D^{25} = -46.6$ (c 0.98, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Ayhan S. Demir,* N. Tuna Subasi and Ertan Sahin

Tetrahedron: Asymmetry 17 (2006) 2625



$C_9H_{11}NO_3$

(*S*)-Methyl-2-(2-formyl-1*H*-pyrrol-1-yl)propanoate

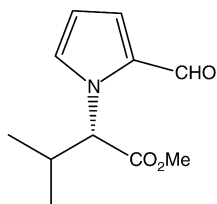
Ee >98%

$[\alpha]_D^{25} = -87.5$ (c 0.2, $CHCl_3$)

Source of chirality: L-alanine

Ayhan S. Demir,* N. Tuna Subasi and Ertan Sahin

Tetrahedron: Asymmetry 17 (2006) 2625



$C_{11}H_{15}NO_3$

(*S*)-Methyl-2-(2-formyl-1*H*-pyrrol-1-yl)-3-methylbutanoate

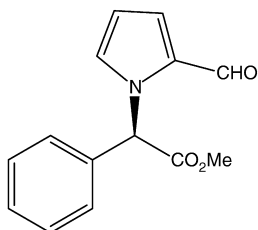
Ee >98%

$[\alpha]_D^{25} = +1.5$ (c 1.1, $CHCl_3$)

Source of chirality: L-valine

Ayhan S. Demir,* N. Tuna Subasi and Ertan Sahin

Tetrahedron: Asymmetry 17 (2006) 2625



$C_{14}H_{13}NO_3$

(*R*)-Methyl-2-(2-formyl-1*H*-pyrrol-1-yl)-2-phenyl acetate

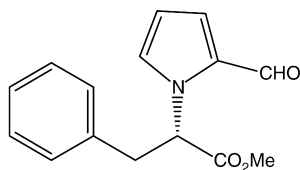
Ee >98%

$[\alpha]_D^{25} = -104.4$ (c 0.2, $CHCl_3$)

Source of chirality: D-phenylglycine

Ayhan S. Demir,* N. Tuna Subasi and Ertan Sahin

Tetrahedron: Asymmetry 17 (2006) 2625



(*S*)-Methyl-2-(2-formyl-1*H*-pyrrol-1-yl)-3-phenylpropanoate

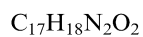
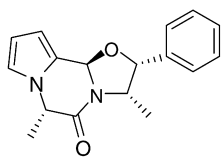
Ee >98%

$[\alpha]_D^{25} = +8.8$ (*c* 0.2, $CHCl_3$)

Source of chirality: L-phenylalanine

Ayhan S. Demir,* N. Tuna Subasi and Ertan Sahin

Tetrahedron: Asymmetry 17 (2006) 2625

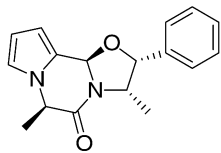


(*2R,3S,6S,10aR*)-3,6-Dimethyl-2-phenyl-2,3-dihydro-10*bH*-[1,3]oxazolo[3,2-*a*]pyrrolo[2,1-*c*]pyrazin-5[6*H*]-one

$[\alpha]_D^{25} = -58.1$ (*c* 0.1, $CHCl_3$)

Ayhan S. Demir,* N. Tuna Subasi and Ertan Sahin

Tetrahedron: Asymmetry 17 (2006) 2625

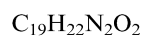
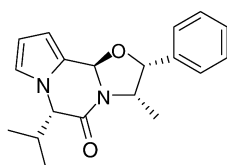


(*2R,3S,6R,10aR*)-3,6-Dimethyl-2-phenyl-2,3-dihydro-10*bH*-[1,3]oxazolo[3,2-*a*]pyrrolo[2,1-*c*]pyrazin-5[6*H*]-one

$[\alpha]_D^{25} = -7.2$ (*c* 0.2, $CHCl_3$)

Ayhan S. Demir,* N. Tuna Subasi and Ertan Sahin

Tetrahedron: Asymmetry 17 (2006) 2625

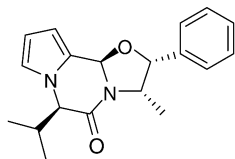


(*2R,3S,6S,10aR*)-3-Methyl-6-isopropyl-2-phenyl-2,3-dihydro-10*bH*-[1,3]oxazolo[3,2-*a*]pyrrolo[2,1-*c*]pyrazin-5[6*H*]-one

$[\alpha]_D^{25} = -57.4$ (*c* 0.4, $CHCl_3$)

Ayhan S. Demir,* N. Tuna Subasi and Ertan Sahin

Tetrahedron: Asymmetry 17 (2006) 2625



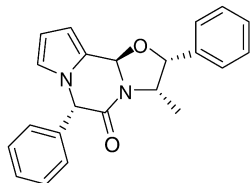
C₁₉H₂₂N₂O₂

(2*R*,3*S*,6*R*,10*aR*)-3-Methyl-6-isopropyl-2-phenyl-2,3-dihydro-10*bH*-[1,3]oxazolo[3,2-*a*]pyrrolo[2,1-*c*]pyrazin-5[6*H*]-one

$$[\alpha]_D^{25} = -28.2 \text{ (} c \text{ 0.1, CHCl}_3\text{)}$$

Ayhan S. Demir,* N. Tuna Subasi and Ertan Sahin

Tetrahedron: Asymmetry 17 (2006) 2625



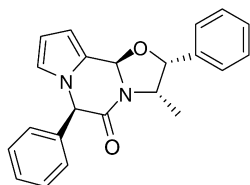
C₂₂H₂₀N₂O₂

(2*R*,3*S*,6*S*,10*aR*)-2,6-Diphenyl-3-methyl-2,3-dihydro-10*bH*-[1,3]oxazolo[3,2-*a*]pyrrolo[2,1-*c*]pyrazin-5[6*H*]-one

$$[\alpha]_D^{25} = -75.4 \text{ (} c \text{ 0.1, CHCl}_3\text{)}$$

Ayhan S. Demir,* N. Tuna Subasi and Ertan Sahin

Tetrahedron: Asymmetry 17 (2006) 2625



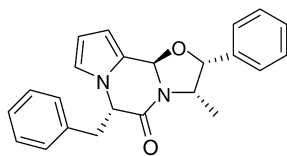
C₂₂H₂₀N₂O₂

(2*R*,3*S*,6*R*,10*aR*)-2,6-Diphenyl-3-methyl-2,3-dihydro-10*bH*-[1,3]oxazolo[3,2-*a*]pyrrolo[2,1-*c*]pyrazin-5[6*H*]-one

$$[\alpha]_D^{25} = -63.0 \text{ (} c \text{ 0.1, CHCl}_3\text{)}$$

Ayhan S. Demir,* N. Tuna Subasi and Ertan Sahin

Tetrahedron: Asymmetry 17 (2006) 2625



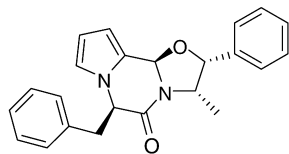
C₂₃H₂₂N₂O₂

(2*R*,3*S*,6*S*,10*aR*)-6-Benzyl-3-methyl-2-phenyl-2,3-dihydro-10*bH*-[1,3]oxazolo[3,2-*a*]pyrrolo[2,1-*c*]pyrazin-5[6*H*]-one

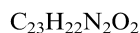
$$[\alpha]_D^{25} = -23.0 \text{ (} c \text{ 0.4, CHCl}_3\text{)}$$

Ayhan S. Demir,* N. Tuna Subasi and Ertan Sahin

Tetrahedron: Asymmetry 17 (2006) 2625



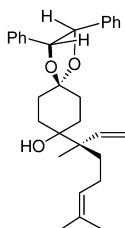
$$[\alpha]_D^{25} = -8.3 \text{ (} c \text{ 0.8, CHCl}_3\text{)}$$



(2*R*,3*S*,6*R*,10*aR*)-6-Benzyl-3-methyl-2-phenyl-2,3-dihydro-10*bH*-[1,3]oxazolo[3,2-*a*]pyrrolo[2,1-*c*]pyrazin-5[6*H*]-one

Ramón Alibés, Félix Busqué,* Gisela G. Bardají, Pedro de March, Marta Figueredo and Josep Font

Tetrahedron: Asymmetry 17 (2006) 2632

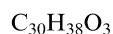


$$E_e = 98\%$$

$$[\alpha]_D^{20} = +19.2 \text{ (} c \text{ 0.6, CHCl}_3\text{)}$$

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

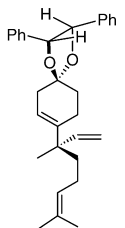
Absolute configuration: (2*R*,3*R*,1'*R*)



(2*R*,3*R*,1'*R*)-(+)-8-(1,5-Dimethyl-1-vinyl-4-hexenyl)-2,3-diphenyl-1,4-dioxaspiro[4.5]decan-8-ol

Ramón Alibés, Félix Busqué,* Gisela G. Bardají, Pedro de March, Marta Figueredo and Josep Font

Tetrahedron: Asymmetry 17 (2006) 2632

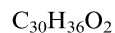


$$E_e = 98\%$$

$$[\alpha]_D^{20} = +36.4 \text{ (} c \text{ 1.0, CHCl}_3\text{)}$$

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

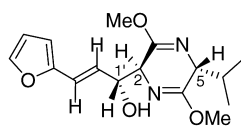
Absolute configuration: (2*R*,3*R*,1'*R*)



(2*R*,3*R*,1'*R*)-(+)-8-(1,5-Dimethyl-1-vinyl-4-hexenyl)-2,3-diphenyl-1,4-dioxaspiro[4.5]dec-7-ene

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana and Concetta La Rosa*

Tetrahedron: Asymmetry 17 (2006) 2637

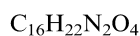


$$D_r = >99\% \text{ [NMR]}$$

$$[\alpha]_D^{20} = -73.65 \text{ (} c \text{ 0.72, Et}_2\text{O)}$$

Source of chirality: Schöllkopf's reagent

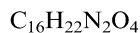
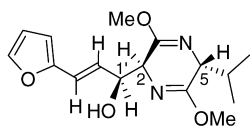
Absolute configuration: (1'*R*,2*S*,5*R*)-(*E*)



(1'*R*,2*S*,5*R*)-(*E*)-3-Furan-2-yl-1-(5-isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-prop-2-en-1-ol

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana and Concetta La Rosa*

Tetrahedron: Asymmetry 17 (2006) 2637



(1'S,2S,5R)-(E)-3-Furan-2-yl-1-(5-isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-prop-2-en-1-ol

Dr = >99% [NMR]

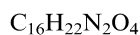
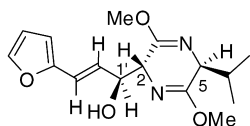
$[\alpha]_D^{20} = +58.2$ (c 0.74, Et₂O)

Source of chirality: *Schöllkopf's* reagent

Absolute configuration: (1'S,2S,5R)-(E)

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana and Concetta La Rosa*

Tetrahedron: Asymmetry 17 (2006) 2637



(1'S,2R,5S)-(E)-3-Furan-2-yl-1-(5-isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-prop-2-en-1-ol

Dr = >99% [NMR]

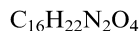
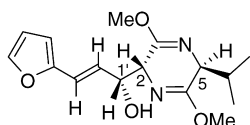
$[\alpha]_D^{20} = +68.9$ (c 0.83, Et₂O)

Source of chirality: *Schöllkopf's* reagent

Absolute configuration: (1'S,2R,5S)-(E)

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana and Concetta La Rosa*

Tetrahedron: Asymmetry 17 (2006) 2637



(1'R,2R,5S)-(E)-3-Furan-2-yl-1-(5-isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-prop-2-en-1-ol

Dr = >99% [NMR]

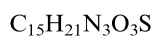
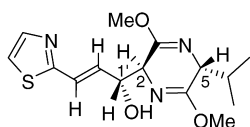
$[\alpha]_D^{20} = -49.9$ (c 0.57, Et₂O)

Source of chirality: *Schöllkopf's* reagent

Absolute configuration: (1'R,2R,5S)-(E)

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana and Concetta La Rosa*

Tetrahedron: Asymmetry 17 (2006) 2637



(1'R,2S,5R)-(E)-1-(5-Isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-3-thiazol-2-yl-prop-2-en-1-ol

Dr = >99% [NMR]

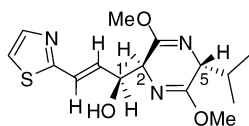
$[\alpha]_D^{20} = -99.1$ (c 0.89, Et₂O)

Source of chirality: *Schöllkopf's* reagent

Absolute configuration: (1'R,2S,5R)-(E)

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana and Concetta La Rosa*

Tetrahedron: Asymmetry 17 (2006) 2637



C₁₅H₂₁N₃O₃S

(1'S,2S,5R)-(E)-1-(5-Isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-3-thiazol-2-yl-prop-2-en-1-ol

Dr = >99% [NMR]

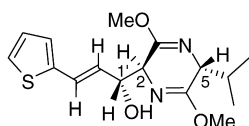
[α]_D²⁰ = +82.9 (c 0.57, Et₂O)

Source of chirality: *Schöllkopf's* reagent

Absolute configuration: (1'S,2S,5R)-(E)

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana and Concetta La Rosa*

Tetrahedron: Asymmetry 17 (2006) 2637



C₁₆H₂₂N₂O₃S

(1'R,2S,5R)-(E)-1-(5-Isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-3-thiophen-2-yl-prop-2-en-1-ol

Dr = >99% [NMR]

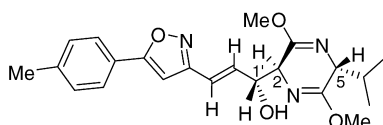
[α]_D²⁰ = -28.4 (c 1.2, Et₂O)

Source of chirality: *Schöllkopf's* reagent

Absolute configuration: (1'R,2S,5R)-(E)

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana and Concetta La Rosa*

Tetrahedron: Asymmetry 17 (2006) 2637



C₂₂H₂₇N₃O₄

(1'R,2S,5R)-(E)-1-(5-Isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-3-(5-p-tolyl-isoxazol-3-yl)-prop-2-en-1-ol

Dr = >99% [NMR]

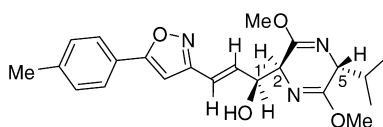
[α]_D²⁰ = -82.4 (c 0.66, Et₂O)

Source of chirality: *Schöllkopf's* reagent

Absolute configuration: (1'R,2S,5R)-(E)

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana and Concetta La Rosa*

Tetrahedron: Asymmetry 17 (2006) 2637



C₂₂H₂₇N₃O₄

(1'S,2S,5R)-(E)-1-(5-Isopropyl-3,6-dimethoxy-2,5-dihydro-pyrazin-2-yl)-3-(5-p-tolyl-isoxazol-3-yl)-prop-2-en-1-ol

Dr = >99% [NMR]

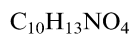
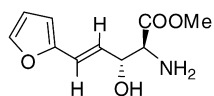
[α]_D²⁰ = +63.5 (c 0.20, Et₂O).

Source of chirality: *Schöllkopf's* reagent

Absolute configuration: (1'S,2S,5R)-(E)

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana and Concetta La Rosa*

Tetrahedron: Asymmetry 17 (2006) 2637



(2*S*,3*R*)-(E)-2-Amino-5-furan-2-yl-3-hydroxy-pent-4-enoic acid methyl ester

Dr = >99% [NMR]

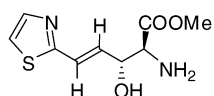
$[\alpha]_D^{20} = +27.0$ (c 0.45, CH_3COCH_3)

Source of chirality: asymmetric synthesis

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

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana and Concetta La Rosa*

Tetrahedron: Asymmetry 17 (2006) 2637



(2*S*,3*R*)-(E)-2-Amino-3-hydroxy-5-thiazol-2-yl-pent-4-enoic acid methyl ester

Dr = >99% [NMR]

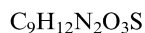
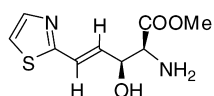
$[\alpha]_D^{20} = +14.5$ (c 0.54, CH_3COCH_3)

Source of chirality: asymmetric synthesis

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

Giuseppe Cremonesi, Piero Dalla Croce, Francesco Fontana and Concetta La Rosa*

Tetrahedron: Asymmetry 17 (2006) 2637



(2*S*,3*S*)-(E)-2-Amino-3-hydroxy-5-thiazol-2-yl-pent-4-enoic acid methyl ester

Dr = >99% [NMR]

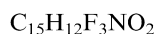
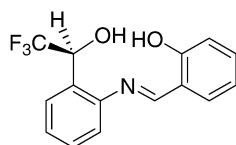
$[\alpha]_D^{20} = +14.0$ (c 0.5, CH_3COCH_3)

Source of chirality: asymmetric synthesis

Absolute configuration: (2*S*,3*S*)-(E)

Yasser Samir Sokeirik, Masaaki Omote, Kazuyuki Sato, Itsumaro Kumadaki and Akira Ando*

Tetrahedron: Asymmetry 17 (2006) 2654

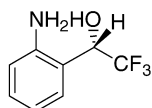


(*S*,*E*)-2-((2-(2,2,2-Trifluoro-1-hydroxyethyl)phenylimino)methyl)phenol

$[\alpha]_D^{20.5} = -159.5$ (c 1.10, $CHCl_3$)

Yasser Samir Sokeirik, Masaaki Omote, Kazuyuki Sato,
Itsumaro Kumadaki and Akira Ando*

Tetrahedron: Asymmetry 17 (2006) 2654



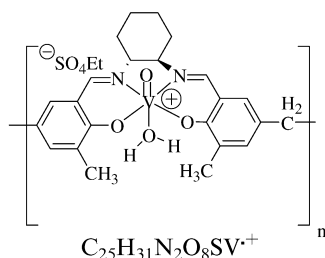
$C_8H_8F_3NO$

(*S*)-1-(2-Aminophenyl)-2,2,2-trifluoroethanol

$$[\alpha]_D^{20.5} = +32.7 (c 1.40, CH_3OH)$$

Noor-ul H. Khan,* Santosh Agrawal, Rukhsana I. Kureshy,
Sayed H. R. Abdi, Vishal J. Mayani and Raksh V. Jasra

Tetrahedron: Asymmetry 17 (2006) 2659



$C_{25}H_{31}N_2O_8SV^+$

Poly[*(R,R)*-(-)-*N,N'*-bis-{3-(1,1-methyl)-5-methylene salicylidine}-cyclohexene-1,2-diamine vanadium(V)] ethylsulphate

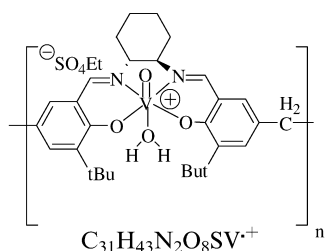
$$[\alpha]_D^{27} = -591 (c 0.05, CH_2Cl_2)$$

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

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

Noor-ul H. Khan,* Santosh Agrawal, Rukhsana I. Kureshy,
Sayed H. R. Abdi, Vishal J. Mayani and Raksh V. Jasra

Tetrahedron: Asymmetry 17 (2006) 2659



$C_{31}H_{43}N_2O_8SV^+$

Poly[*(R,R)*-(-)-*N,N'*-bis-{3-(1,1-dimethylethyl)-5-methylene salicylidine}-cyclohexene-1,2-diamine vanadium(V)] ethylsulphate

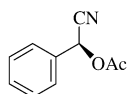
$$[\alpha]_D^{27} = -204.6 (c 0.05, CH_2Cl_2)$$

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

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

Noor-ul H. Khan,* Santosh Agrawal, Rukhsana I. Kureshy,
Sayed H. R. Abdi, Vishal J. Mayani and Raksh V. Jasra

Tetrahedron: Asymmetry 17 (2006) 2659



$C_{10}H_9NO_2$

(*S*)-2-*O*-Acetyl-2-phenyl acetonitrile

Ee = 94%

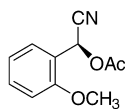
$$[\alpha]_D^{27} = -31.5 (c 1, CH_2Cl_2)$$

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

Absolute configuration: *S*

Noor-ul H. Khan,* Santosh Agrawal, Rukhsana I. Kureshy,
Sayed H. R. Abdi, Vishal J. Mayani and Raksh V. Jasra

Tetrahedron: Asymmetry 17 (2006) 2659



$C_{11}H_{11}NO_3$

(*S*)-2-*O*-Acetyl-2-(2-methoxyphenyl) acetonitrile

Ee = 89%

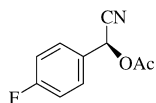
$[\alpha]_D^{27} = -25.6$ (*c* 1, CH_2Cl_2)

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

Absolute configuration: *S*

Noor-ul H. Khan,* Santosh Agrawal, Rukhsana I. Kureshy,
Sayed H. R. Abdi, Vishal J. Mayani and Raksh V. Jasra

Tetrahedron: Asymmetry 17 (2006) 2659



$C_{10}H_8FNO_2$

(*S*)-2-*O*-Acetyl-2-(4-fluorophenyl) acetonitrile

Ee = 80%

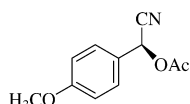
$[\alpha]_D^{27} = -20.2$ (*c* 1, CH_2Cl_2)

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

Absolute configuration: *S*

Noor-ul H. Khan,* Santosh Agrawal, Rukhsana I. Kureshy,
Sayed H. R. Abdi, Vishal J. Mayani and Raksh V. Jasra

Tetrahedron: Asymmetry 17 (2006) 2659



$C_{11}H_{11}NO_3$

(*S*)-2-*O*-Acetyl-2-(4-methoxyphenyl) acetonitrile

Ee = 86%

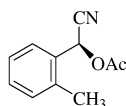
$[\alpha]_D^{27} = -24.4$ (*c* 1, CH_2Cl_2)

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

Absolute configuration: *S*

Noor-ul H. Khan,* Santosh Agrawal, Rukhsana I. Kureshy,
Sayed H. R. Abdi, Vishal J. Mayani and Raksh V. Jasra

Tetrahedron: Asymmetry 17 (2006) 2659



$C_{11}H_{11}NO_2$

(*S*)-2-*O*-Acetyl-2-(2-methylphenyl) acetonitrile

Ee = 96%

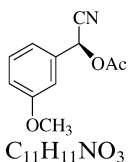
$[\alpha]_D^{27} = -26.2$ (*c* 1, CH_2Cl_2)

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

Absolute configuration: *S*

Noor-ul H. Khan,* Santosh Agrawal, Rukhsana I. Kureshy,
Sayed H. R. Abdi, Vishal J. Mayani and Raksh V. Jasra

Tetrahedron: Asymmetry 17 (2006) 2659



(*S*)-2-*O*-Acetyl-2-(3-methoxyphenyl) acetonitrile

Ee = 82%

$[\alpha]_D^{27} = -23.1$ (*c* 1, CH_2Cl_2)

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

Absolute configuration: *S*

Noor-ul H. Khan,* Santosh Agrawal, Rukhsana I. Kureshy,
Sayed H. R. Abdi, Vishal J. Mayani and Raksh V. Jasra

Tetrahedron: Asymmetry 17 (2006) 2659



(*S*)-2-*O*-Acetyl-2-(4-chlorophenyl) acetonitrile

Ee = 77%

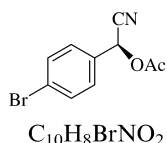
$[\alpha]_D^{27} = -10.2$ (*c* 1, CH_2Cl_2)

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

Absolute configuration: *S*

Noor-ul H. Khan,* Santosh Agrawal, Rukhsana I. Kureshy,
Sayed H. R. Abdi, Vishal J. Mayani and Raksh V. Jasra

Tetrahedron: Asymmetry 17 (2006) 2659



(*S*)-2-*O*-Acetyl-2-(4-bromophenyl) acetonitrile

Ee = 79%

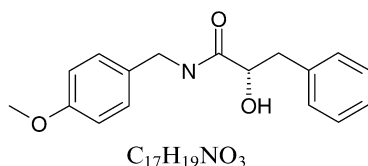
$[\alpha]_D^{27} = -11.6$ (*c* 1, CH_2Cl_2)

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

Absolute configuration: *S*

Wiktor Szymanski and Ryszard Ostaszewski*

Tetrahedron: Asymmetry 17 (2006) 2667



(*S*)-2-Hydroxy-*N*-(4-methoxy-benzyl)-3-phenyl-propionamide

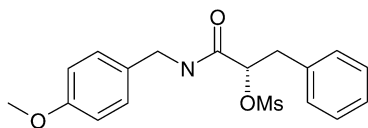
$[\alpha]_D^{25} = -71.1$ (*c* 1.0, chloroform)

Chirality source: stereocontrolled synthesis from
commercially available enantiopure compound

Absolute configuration: (*S*)

Wiktor Szymanski and Ryszard Ostaszewski*

Tetrahedron: Asymmetry 17 (2006) 2667



$C_{18}H_{21}NO_5S$

Methanesulfonic acid (*S*)-1-(4-methoxy-benzylcarbamoyl)-2-phenyl-ethyl ester

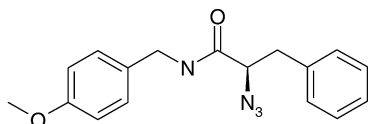
$[\alpha]_D^{25} = -66.0$ (*c* 1.00, chloroform)

Chirality source: stereocontrolled synthesis from commercially available enantiopure compound

Absolute configuration: (*S*)

Wiktor Szymanski and Ryszard Ostaszewski*

Tetrahedron: Asymmetry 17 (2006) 2667



$C_{17}H_{18}N_4O_2$

(*R*)-2-Azido-*N*-(4-methoxy-benzyl)-3-phenyl-propionamide

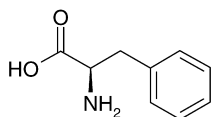
$[\alpha]_D^{25} = -21.8$ (*c* 1.00, chloroform)

Chirality source: stereocontrolled synthesis from commercially available enantiopure compound

Absolute configuration: (*S*)

Wiktor Szymanski and Ryszard Ostaszewski*

Tetrahedron: Asymmetry 17 (2006) 2667



$C_9H_{11}NO_2$

(*R*)-Phenylalanine

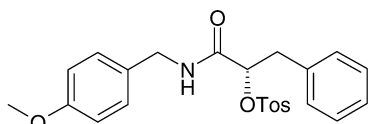
$[\alpha]_D^{25} = -7.3$ (*c* 1.00, acetic acid)

Chirality source: stereocontrolled synthesis from commercially available enantiopure compound

Absolute configuration: (*S*)

Wiktor Szymanski and Ryszard Ostaszewski*

Tetrahedron: Asymmetry 17 (2006) 2667



$C_{24}H_{25}NO_5S$

Toluene-4-sulfonic acid (*S*)-1-(4-methoxy-benzylcarbamoyl)-2-phenyl-ethyl ester

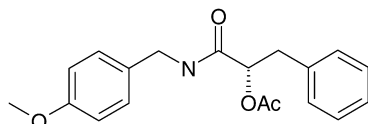
$[\alpha]_D^{25} = -50.4$ (*c* 1.0, chloroform)

Chirality source: stereocontrolled synthesis from commercially available enantiopure compound

Absolute configuration: (*S*)

Wiktor Szymanski and Ryszard Ostaszewski*

Tetrahedron: Asymmetry 17 (2006) 2667



C₁₉H₂₁NO₄

Acetic acid (*S*)-1-(4-methoxy-benzylcarbamoyl)-2-phenyl-ethyl ester

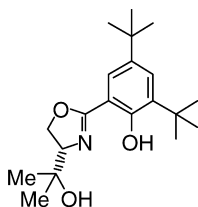
$[\alpha]_D^{25} = -10.9$ (*c* 1.0, chloroform)

Chirality source: stereocontrolled synthesis from commercially available enantiopure compound

Absolute configuration: (*S*)

Changhu Chu, Koji Morishita, Takanori Tanaka and Masahiko Hayashi*

Tetrahedron: Asymmetry 17 (2006) 2672



C₂₀H₃₁NO₃

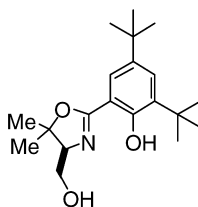
(4*S*)-4-[(1-Hydroxyl-1-methyl)-ethyl]-2-[(2-hydroxyl-3,5-di-*tert*-butyl)-phenyl]-4,5-dihydro-1,3-oxazoline

$[\alpha]_D^{27} = +3.3$ (*c* 1.0, CHCl₃)

Source of chirality: L-serine

Changhu Chu, Koji Morishita, Takanori Tanaka and Masahiko Hayashi*

Tetrahedron: Asymmetry 17 (2006) 2672



C₂₀H₃₁NO₃

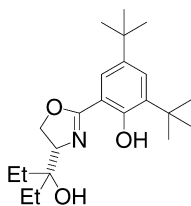
(4*S*)-4-Hydroxymethyl-5,5-dimethyl-2-[(2-hydroxyl-3,5-di-*tert*-butyl)-phenyl]-4,5-dihydro-1,3-oxazoline

$[\alpha]_D^{27} = -30.8$ (*c* 1.0, CHCl₃)

Source of chirality: L-serine

Changhu Chu, Koji Morishita, Takanori Tanaka and Masahiko Hayashi*

Tetrahedron: Asymmetry 17 (2006) 2672



C₂₂H₃₅NO₃

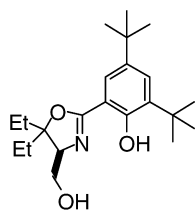
(4*S*)-4-[(1-Ethyl-1-hydroxyl-propyl)-2-[(2-hydroxyl-3,5-di-*tert*-butyl)-phenyl]-4,5-dihydro-1,3-oxazoline

$[\alpha]_D^{27} = -1.2$ (*c* 1.0, CHCl₃)

Source of chirality: L-serine

Changhu Chu, Koji Morishita, Takanori Tanaka and Masahiko Hayashi*

Tetrahedron: Asymmetry 17 (2006) 2672



$C_{22}H_{35}NO_3$

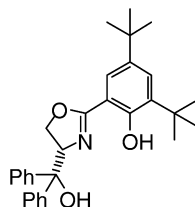
(4S)-4-Hydroxymethyl-5,5-diethyl-2-[(2-hydroxyl-3,5-di-*tert*-butyl)-phenyl]-4,5-dihydro-1,3-oxazoline

$[\alpha]_D^{27} = -24.5$ (*c* 1.0, $CHCl_3$)

Source of chirality: L-serine

Changhu Chu, Koji Morishita, Takanori Tanaka and Masahiko Hayashi*

Tetrahedron: Asymmetry 17 (2006) 2672



$C_{30}H_{35}NO_3$

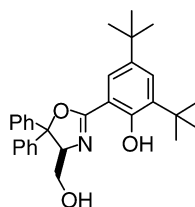
(4S)-4-(Hydroxyl-diphenyl)-methyl]-2-[(2-hydroxyl-3,5-di-*tert*-butyl)-phenyl]-4,5-dihydro-1,3-oxazoline

$[\alpha]_D^{27} = -41.2$ (*c* 1.0, $CHCl_3$)

Source of chirality: L-serine

Changhu Chu, Koji Morishita, Takanori Tanaka and Masahiko Hayashi*

Tetrahedron: Asymmetry 17 (2006) 2672



$C_{30}H_{35}NO_3$

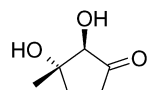
(4S)-4-Hydroxymethyl-5,5-diphenyl-2-[(2-hydroxyl-3,5-di-*tert*-butyl)-phenyl]-4,5-dihydro-1,3-oxazoline

$[\alpha]_D^{27} = -232.5$ (*c* 1.0, $CHCl_3$)

Source of chirality: L-serine

Allan Niidu, Anne Paju, Margus Eek, Aleksander-Mati Müürisepp, Tõnis Pehk and Margus Lopp*

Tetrahedron: Asymmetry 17 (2006) 2678



$C_6H_{10}O_3$

(2R,3S)-2,3-Dihydroxy-3-methyl-cyclopentanone

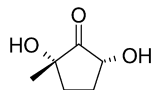
$[\alpha]_D^{25} = +115$ (*c* 0.34, acetone)

de ~100% (NMR)

Source of chirality: asymmetric synthesis

Allan Niidu, Anne Paju, Margus Eek, Aleksander-Mati Müürisepp,
Tõnis Pehk and Margus Lopp*

Tetrahedron: Asymmetry 17 (2006) 2678



(2*S*,5*R*)-2,5-Dihydroxy-2-methyl-cyclopentanone

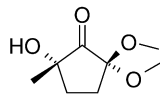
$[\alpha]_D^{22} = +243$ (*c* 0.80, MeOH)

de ~100% (NMR)

Source of chirality: asymmetric synthesis

Allan Niidu, Anne Paju, Margus Eek, Aleksander-Mati Müürisepp,
Tõnis Pehk and Margus Lopp*

Tetrahedron: Asymmetry 17 (2006) 2678



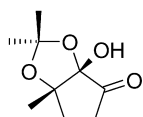
(2*S*)-2-Hydroxy-5,5-dimethoxy-3-methyl-cyclopentanone

$[\alpha]_D^{25} = -38$ (*c* 2.47, CHCl₃)

Source of chirality: asymmetric synthesis

Allan Niidu, Anne Paju, Margus Eek, Aleksander-Mati Müürisepp,
Tõnis Pehk and Margus Lopp*

Tetrahedron: Asymmetry 17 (2006) 2678



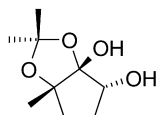
(3*aS*,6*aS*)-3*a*-Hydroxy-2,2,6*a*-trimethyl-tetrahydro-cyclopenta[1,3]dioxol-4-one

$[\alpha]_D^{24} = +125$ (*c* 1.75, CHCl₃)

Source of chirality: asymmetric synthesis

Allan Niidu, Anne Paju, Margus Eek, Aleksander-Mati Müürisepp,
Tõnis Pehk and Margus Lopp*

Tetrahedron: Asymmetry 17 (2006) 2678



(3*aR*,4*R*,6*aS*)-2,2,6*a*-Trimethyl-tetrahydro-cyclopenta[1,3]dioxole-3*a*,4-diol

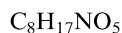
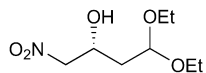
$[\alpha]_D^{25} = -96$ (*c* 3.55, CHCl₃)

de ~100% (NMR)

Source of chirality: asymmetric synthesis

Lahssen El Bliidi, Mustapha Ahbala, Jean Bolte and Marielle Lemaire*

Tetrahedron: Asymmetry 17 (2006) 2684



4,4-Diethoxy-1-nitrobutan-2-ol

Ee = 92% by HPLC on Chiracel OD column

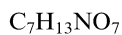
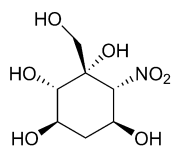
$[\alpha]_{\text{D}}^{23} = -10.4$ (c 1.22, CHCl_3)

Source of chirality: *Candida antarctica* lipase catalysed desymmetrisation by acylation

Absolute configuration: *R*

Lahssen El Bliidi, Mustapha Ahbala, Jean Bolte and Marielle Lemaire*

Tetrahedron: Asymmetry 17 (2006) 2684



1-(Hydroxymethyl)-6-nitrocyclohexane-1,2,3,5-tetraol

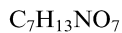
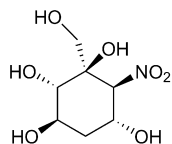
$[\alpha]_{\text{D}}^{23} = -33.3$ (c 4.25, CH_3OH)

Source of chirality: RAMA aldolase catalysed aldolisation

Absolute configuration: 1*S*,2*S*,3*R*,5*S*,6*R*

Lahssen El Bliidi, Mustapha Ahbala, Jean Bolte and Marielle Lemaire*

Tetrahedron: Asymmetry 17 (2006) 2684



1-(Hydroxymethyl)-6-nitrocyclohexane-1,2,3,5-tetraol

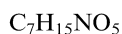
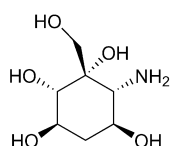
$[\alpha]_{\text{D}}^{23} = +27$ (c 2.67, CH_3OH)

Source of chirality: RAMA aldolase catalysed aldolisation

Absolute configuration: 1*R*,2*S*,3*R*,5*R*,6*S*

Lahssen El Bliidi, Mustapha Ahbala, Jean Bolte and Marielle Lemaire*

Tetrahedron: Asymmetry 17 (2006) 2684



6-Amino-1-(hydroxymethyl)cyclohexane-1,2,3,5-tetraol

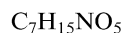
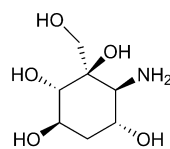
$[\alpha]_{\text{D}}^{23} = -7.9$ (c 1.1, H_2O)

Source of chirality: RAMA aldolase catalysed aldolisation

Absolute configuration: 1*S*,2*S*,3*R*,5*S*,6*R*

Lahssen El Bliidi, Mustapha Ahbala, Jean Bolte and Marielle Lemaire*

Tetrahedron: Asymmetry 17 (2006) 2684



6-Amino-1-(hydroxymethyl)cyclohexane-1,2,3,5-tetraol

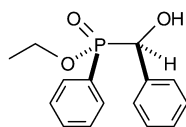
$$[\alpha]_D^{23} = +6.6 \text{ (} c \text{ 1.2, H}_2\text{O)}$$

Source of chirality: RAMA aldolase catalysed aldolisation

Absolute configuration: 1*R*,2*S*,3*R*,5*R*,6*S*

Paulina Majewska,* Paweł Kafarski, Barbara Lejczak, Iwona Bryndal and Tadeusz Lis

Tetrahedron: Asymmetry 17 (2006) 2697



Ethyl hydroxy(phenyl)methane(P-phenyl)phosphinate

$$E_e = 87\%$$

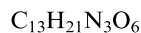
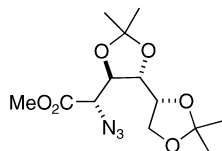
$$[\alpha]_D^{23} = +2.8 \text{ (} c \text{ 1.67, CH}_3\text{Cl, 23 }^\circ\text{C)}$$

Source of chirality: kinetic resolution

Absolute configuration: (*R*_P,*S*)

Jeroen Van Ameijde, Graeme Horne, Mark R. Wormald, Raymond A. Dwek, Robert J. Nash, Paul Wyn Jones, Emma L. Evinson and George W. J. Fleet*

Tetrahedron: Asymmetry 17 (2006) 2702



Methyl 2-azido-2-deoxy-3,4:5,6-di-*O*-isopropylidene-*D*-mannonate **13**

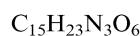
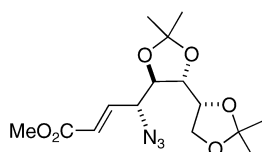
$$E_e = 100\%$$

$$[\alpha]_D^{22} = +21.5 \text{ (} c \text{ 0.69, CHCl}_3)$$

Source of chirality: *D*-glucono-1,5-lactone as starting material

Jeroen Van Ameijde, Graeme Horne, Mark R. Wormald, Raymond A. Dwek, Robert J. Nash, Paul Wyn Jones, Emma L. Evinson and George W. J. Fleet*

Tetrahedron: Asymmetry 17 (2006) 2702



Methyl 4-azido-5,6:7,8-di-*O*-isopropylidene-2,3,4-trideoxy-*D*-manno-oct-2-enoate **14**

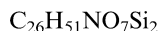
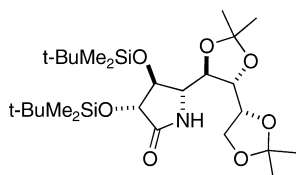
$$E_e = 100\%$$

$$[\alpha]_D^{22} = +35.5 \text{ (} c \text{ 0.71, CHCl}_3)$$

Source of chirality: *D*-glucono-1,5-lactone as starting material

Jeroen Van Ameijde, Graeme Horne, Mark R. Wormald,
Raymond A. Dwek, Robert J. Nash, Paul Wyn Jones,
Emma L. Evinson and George W. J. Fleet*

Tetrahedron: Asymmetry 17 (2006) 2702



4-Deoxy-2,3-di-*O-tert*-butyldimethylsilyl-5,6:7,8-di-*O*-isopropylidene-*D*-erythro-*L*-altro-octono-1,4-lactam **17**

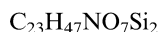
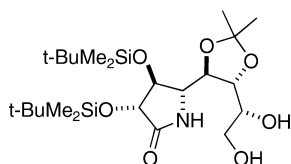
Ee = 100%

$[\alpha]_D^{22} = +1.8$ (*c* 1.59, CHCl₃)

Source of chirality: *D*-glucono-1,5-lactone as starting material

Jeroen Van Ameijde, Graeme Horne, Mark R. Wormald,
Raymond A. Dwek, Robert J. Nash, Paul Wyn Jones,
Emma L. Evinson and George W. J. Fleet*

Tetrahedron: Asymmetry 17 (2006) 2702



4-Deoxy-2,3-di-*O-tert*-butyldimethylsilyl-5,6-*O*-isopropylidene-*D*-erythro-*L*-altro-octono-1,4-lactam **18**

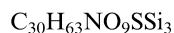
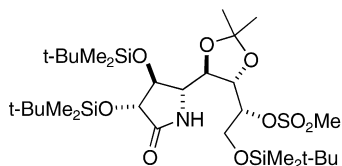
Ee = 100%

$[\alpha]_D^{23} = +2.9$ (*c* 0.41, CHCl₃)

Source of chirality: *D*-glucono-1,5-lactone as starting material

Jeroen Van Ameijde, Graeme Horne, Mark R. Wormald,
Raymond A. Dwek, Robert J. Nash, Paul Wyn Jones,
Emma L. Evinson and George W. J. Fleet*

Tetrahedron: Asymmetry 17 (2006) 2702



4-Deoxy-5,6-*O*-isopropylidene-7-*O*-methanesulfonyl-2,3,8-tri-*O-tert*-butyldimethylsilyl-*D*-erythro-*L*-altro-octono-1,4-lactam **19**

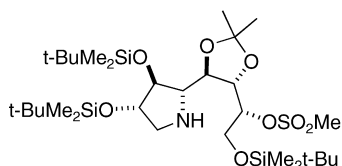
Ee = 100%

$[\alpha]_D^{23} = +28.9$ (*c* 0.37, CHCl₃)

Source of chirality: *D*-glucono-1,5-lactone as starting material

Jeroen Van Ameijde, Graeme Horne, Mark R. Wormald,
Raymond A. Dwek, Robert J. Nash, Paul Wyn Jones,
Emma L. Evinson and George W. J. Fleet*

Tetrahedron: Asymmetry 17 (2006) 2702



1,4-Dideoxy-1,4-imino-5,6-*O*-isopropylidene-7-*O*-methanesulfonyl-2,3,8-tri-*O-tert*-butyldimethylsilyl-*D*-erythro-*L*-altro-octitol **20**

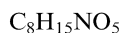
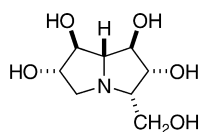
Ee = 100%

$[\alpha]_D^{24} = -67.1$ (*c* 0.38, CHCl₃)

Source of chirality: *D*-glucono-1,5-lactone as starting material

Jeroen Van Ameijde, Graeme Horne, Mark R. Wormald,
Raymond A. Dwek, Robert J. Nash, Paul Wyn Jones,
Emma L. Evinson and George W. J. Fleet*

Tetrahedron: Asymmetry 17 (2006) 2702



3-*epi*-Casuarine **1**

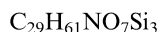
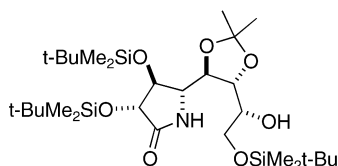
Ee = 100%

$[\alpha]_D^{22} = +5.8$ (*c* 0.69, H₂O)

Source of chirality: D-glucono-1,5-lactone as starting material

Jeroen Van Ameijde, Graeme Horne, Mark R. Wormald,
Raymond A. Dwek, Robert J. Nash, Paul Wyn Jones,
Emma L. Evinson and George W. J. Fleet*

Tetrahedron: Asymmetry 17 (2006) 2702



4-Deoxy-5,6-*O*-isopropylidene-2,3,8-tri-*O*-*tert*-butyldimethylsilyl-D-*erythro*-L-*altro*-octono-1,4-lactam **22**

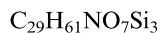
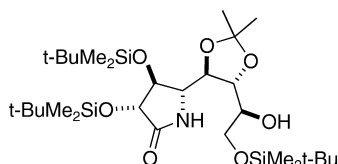
Ee = 100%

$[\alpha]_D^{23} = +13.5$ (*c* 0.65, CHCl₃)

Source of chirality: D-glucono-1,5-lactone as starting material

Jeroen Van Ameijde, Graeme Horne, Mark R. Wormald,
Raymond A. Dwek, Robert J. Nash, Paul Wyn Jones,
Emma L. Evinson and George W. J. Fleet*

Tetrahedron: Asymmetry 17 (2006) 2702



4-Deoxy-5,6-*O*-isopropylidene-2,3,8-tri-*O*-*tert*-butyldimethylsilyl-L-*threo*-L-*altro*-octono-1,4-lactam **24**

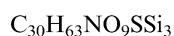
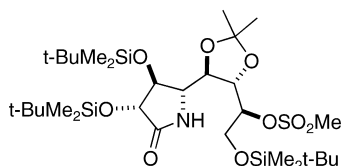
Ee = 100%

$[\alpha]_D^{23} = +11.1$ (*c* 0.55, CHCl₃)

Source of chirality: D-glucono-1,5-lactone as starting material

Jeroen Van Ameijde, Graeme Horne, Mark R. Wormald,
Raymond A. Dwek, Robert J. Nash, Paul Wyn Jones,
Emma L. Evinson and George W. J. Fleet*

Tetrahedron: Asymmetry 17 (2006) 2702



4-Deoxy-5,6-*O*-isopropylidene-7-*O*-methanesulfonyl-2,3,8-tri-*O*-*tert*-butyldimethylsilyl-L-*threo*-L-*altro*-octono-1,4-lactam **25**

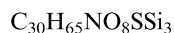
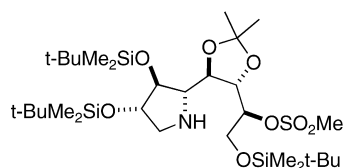
Ee = 100%

$[\alpha]_D^{22} = +6.0$ (*c* 0.57, CHCl₃)

Source of chirality: D-glucono-1,5-lactone as starting material

Jeroen Van Ameijde, Graeme Horne, Mark R. Wormald,
Raymond A. Dwek, Robert J. Nash, Paul Wyn Jones,
Emma L. Evinson and George W. J. Fleet*

Tetrahedron: Asymmetry 17 (2006) 2702



1,4-Dideoxy-1,4-imino-5,6-O-isopropylidene-7-O-methanesulfonyl-2,3,8-tri-O-tert-butyl dimethylsilyl-L-threo-L-altro-octitol **26**

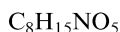
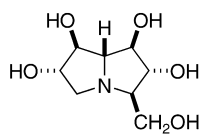
Ee = 100%

$[\alpha]_D^{23} = -8.5$ (*c* 1.32, CHCl₃)

Source of chirality: D-glucono-1,5-lactone as starting material

Jeroen Van Ameijde, Graeme Horne, Mark R. Wormald,
Raymond A. Dwek, Robert J. Nash, Paul Wyn Jones,
Emma L. Evinson and George W. J. Fleet*

Tetrahedron: Asymmetry 17 (2006) 2702



Casuarine **2**

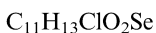
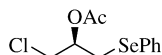
Ee = 100%

$[\alpha]_D^{23} = +16.8$ (*c* 0.33, H₂O)

Source of chirality: D-glucono-1,5-lactone as starting material

Michelangelo Gruttadauria,* Paolo Lo Meo, Serena Riela,
Francesca D'Anna and Renato Noto

Tetrahedron: Asymmetry 17 (2006) 2713



(*R*)-1-chloro-3-(phenylseleno)propan-2-yl acetate

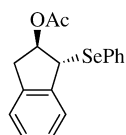
Ee = 95%

$[\alpha]_D^{23} = -8.8$ (*c* 0.30, CHCl₃)

Absolute configuration: *R*

Michelangelo Gruttadauria,* Paolo Lo Meo, Serena Riela,
Francesca D'Anna and Renato Noto

Tetrahedron: Asymmetry 17 (2006) 2713



(*R,R*)-2,3-dihydro-1-(phenylseleno)-1*H*-inden-2-yl acetate

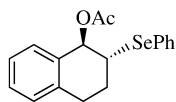
Ee = >99%

$[\alpha]_D^{27} = +25.6$ (*c* 1.19, CHCl₃)

Absolute configuration: *R,R*

Michelangelo Gruttadauria,* Paolo Lo Meo, Serena Riela,
Francesca D'Anna and Renato Noto

Tetrahedron: Asymmetry 17 (2006) 2713



$C_{18}H_{18}O_2Se$

(*R,R*)-1,2,3,4-Tetrahydro-2-(phenylseleno)naphthalen-1-yl acetate

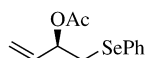
Ee = 96%

$[\alpha]_D^{26} = -51.2$ (*c* 0.26, $CHCl_3$)

Absolute configuration: *R,R*

Michelangelo Gruttadauria,* Paolo Lo Meo, Serena Riela,
Francesca D'Anna and Renato Noto

Tetrahedron: Asymmetry 17 (2006) 2713



$C_{12}H_{14}O_2Se$

(*R*)-1-(Phenylseleno)-but-3-en-2-yl acetate

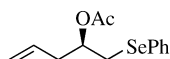
Ee = 80%

$[\alpha]_D^{26} = -5.4$ (*c* 0.99, $CHCl_3$)

Absolute configuration: *R*

Michelangelo Gruttadauria,* Paolo Lo Meo, Serena Riela,
Francesca D'Anna and Renato Noto

Tetrahedron: Asymmetry 17 (2006) 2713



$C_{13}H_{16}O_2Se$

(*R*)-1-(Phenylseleno)-pent-4-en-2-yl acetate

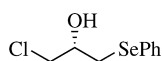
Ee = 94%

$[\alpha]_D^{26} = -16.2$ (*c* 0.87, $CHCl_3$)

Absolute configuration: *R*

Michelangelo Gruttadauria,* Paolo Lo Meo, Serena Riela,
Francesca D'Anna and Renato Noto

Tetrahedron: Asymmetry 17 (2006) 2713



$C_9H_{11}ClOSe$

(*S*)-1-Chloro-3-(phenylseleno)propan-2-ol

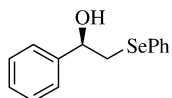
Ee = 84%

$[\alpha]_D^{23} = +19.25$ (*c* 0.32, $CHCl_3$)

Absolute configuration: *S*

Michelangelo Gruttadauria,* Paolo Lo Meo, Serena Riela,
Francesca D'Anna and Renato Noto

Tetrahedron: Asymmetry 17 (2006) 2713



C₁₄H₁₄OSe

(*R*)-1-Phenyl-2-(phenylseleno)ethanol

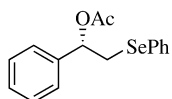
Ee = 44%

$[\alpha]_D^{26} = -8.6$ (c 0.90, CHCl₃)

Absolute configuration: *R*

Michelangelo Gruttadauria,* Paolo Lo Meo, Serena Riela,
Francesca D'Anna and Renato Noto

Tetrahedron: Asymmetry 17 (2006) 2713



C₁₆H₁₆O₂Se

(*S*)-1-Phenyl-2-(phenylseleno)ethyl acetate

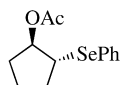
Ee = 46%

$[\alpha]_D^{26} = +13.2$ (c 1.38, CHCl₃)

Absolute configuration: *S*

Michelangelo Gruttadauria,* Paolo Lo Meo, Serena Riela,
Francesca D'Anna and Renato Noto

Tetrahedron: Asymmetry 17 (2006) 2713



C₁₃H₁₆O₂Se

(*R,R*)-2-(Phenylseleno)-cyclopentyl acetate

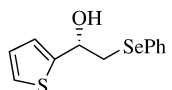
Ee = >99%

$[\alpha]_D^{28} = -2.2$ (c 1.02, CHCl₃)

Absolute configuration: *R,R*

Michelangelo Gruttadauria,* Paolo Lo Meo, Serena Riela,
Francesca D'Anna and Renato Noto

Tetrahedron: Asymmetry 17 (2006) 2713



C₁₂H₁₂OSSe

(*S*)-2-(Phenylseleno)-1-thiophen-2-yl-ethanol

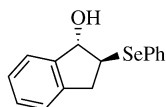
Ee = 58%

$[\alpha]_D^{25} = +4.1$ (c 0.73, CHCl₃)

Absolute configuration: *S*

Michelangelo Gruttadauria,* Paolo Lo Meo, Serena Riela,
Francesca D'Anna and Renato Noto

Tetrahedron: Asymmetry 17 (2006) 2713



C₁₅H₁₄OSe

(*S,S*)-2,3-Dihydro-2-(phenylseleno)-1*H*-inden-1-ol

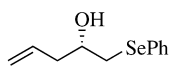
Ee = >99%

[α]_D²⁶ = +3.7 (c 0.83, CHCl₃)

Absolute configuration: *S,S*

Michelangelo Gruttadauria,* Paolo Lo Meo, Serena Riela,
Francesca D'Anna and Renato Noto

Tetrahedron: Asymmetry 17 (2006) 2713



C₁₁H₁₄OSe

(*S*)-1-(Phenylseleno)-pent-4-en-2-ol

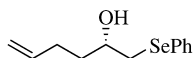
Ee = >99%

[α]_D²⁶ = +30.65 (c 0.65, CHCl₃)

Absolute configuration: *S*

Michelangelo Gruttadauria,* Paolo Lo Meo, Serena Riela,
Francesca D'Anna and Renato Noto

Tetrahedron: Asymmetry 17 (2006) 2713



C₁₂H₁₆OSe

(*S*)-1-(Phenylseleno)-hex-5-en-2-ol

Ee = 85%

[α]_D²⁴ = +36.3 (c 0.83, CHCl₃)

Absolute configuration: *S*