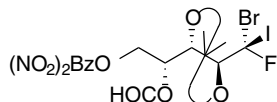


Stereochemistry abstracts

Cosme G. Francisco, Concepción C. González, Alan R. Kennedy,
Nieves R. Paz and Ernesto Suárez*

Tetrahedron: Asymmetry 15 (2004) 11



$C_{16}H_{15}BrFIN_2O_{10}$

(5*R*)-5-Bromo-5-deoxy-1-*O*-(3,5-dinitrobenzoyl)-5-fluoro-2-*O*-formyl-5-iodo-3,4-*O*-isopropylidene-**D**-arabinitol

Ee = 100%

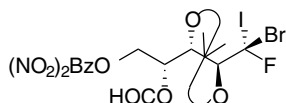
$[\alpha]_D^{25} +19.3$ (*c* 0.14, $CHCl_3$)

Source of chirality: **D**-galactose

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

Cosme G. Francisco, Concepción C. González, Alan R. Kennedy,
Nieves R. Paz and Ernesto Suárez*

Tetrahedron: Asymmetry 15 (2004) 11



$C_{16}H_{15}BrFIN_2O_{10}$

(5*S*)-5-Bromo-5-deoxy-1-*O*-(3,5-dinitrobenzoyl)-5-fluoro-2-*O*-formyl-5-iodo-3,4-*O*-isopropylidene-**D**-arabinitol

Ee = 100%

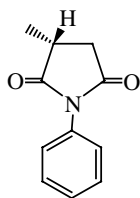
$[\alpha]_D^{25} -21.0$ (*c* 0.1, $CHCl_3$)

Source of chirality: **D**-galactose

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

Toshifumi Hirata,* Asuka Takarada, Akihito Matsushima,
Yoko Kondo and Hiroki Hamada

Tetrahedron: Asymmetry 15 (2004) 15



$C_{11}H_{11}O_2N$

N-Phenyl-2-methylsuccinimide

Ee = 99%

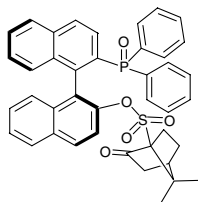
$[\alpha]_D^{25} +6.6$ (*c* 0.56, $CHCl_3$)

Source of chirality: asymmetric hydrogenation
with the cultured suspension cells of
Nicotiana tabacum

Absolute configuration: *R*

Yunfei Luo, Feng Wang, Gangguo Zhu and Zhaoguo Zhang*

Tetrahedron: Asymmetry 15 (2004) 17



$C_{42}H_{37}O_5PS$

2'-Diphenylphosphinoyl-(*S*)-1,1'-binaphthalen-2-yl (1*S*)-(+)-10-camphorsulfonate

De: 98%

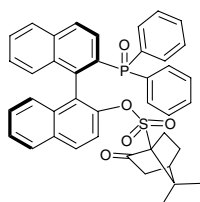
$[\alpha]_D^{25} +5.8$ (*c* 1.00, $CHCl_3$)

Source of chirality: (1*S*)-(+)-10-camphor-
sulfonyl chloride

Absolute configuration: axial chiral, *S*; central
chiral, *S*

Yunfei Luo, Feng Wang, Gangguo Zhu and Zhaoguo Zhang*

Tetrahedron: Asymmetry 15 (2004) 17



$C_{42}H_{37}O_5PS$

2'-Diphenylphosphinoyl-(*R*)-1,1'-binaphthalen-2-yl (1*S*)-(+)-10-camphorsulfonate

De: 95%

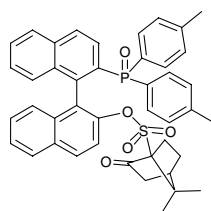
$[\alpha]_D^{21} +17.4$ (*c* 1.00, $CHCl_3$)

Source of chirality: (1*S*)-(+)-10-camphor-sulfonyl chloride

Absolute configuration: axial chiral, *R*;
central chiral, *S*

Yunfei Luo, Feng Wang, Gangguo Zhu and Zhaoguo Zhang*

Tetrahedron: Asymmetry 15 (2004) 17



$C_{44}H_{41}O_5PS$

2'-Di(*p*-tolyl)phosphinoyl-1,1'-binaphthalen-2-yl (1*S*)-(+)-10-camphorsulfonate

De: 97%

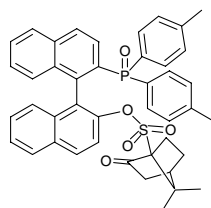
$[\alpha]_D^{21} +45.8$ (*c* 1.00, MeOH)

Source of chirality: (1*S*)-(+)-10-camphor-sulfonyl chloride

Absolute configuration: axial chiral,
unidentified; central chiral, *S*

Yunfei Luo, Feng Wang, Gangguo Zhu and Zhaoguo Zhang*

Tetrahedron: Asymmetry 15 (2004) 17



$C_{44}H_{41}O_5PS$

2'-Di(*p*-tolyl)phosphinoyl-1,1'-binaphthalen-2-yl (1*S*)-(+)-10-camphorsulfonate

De: 99%

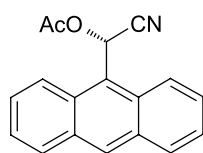
$[\alpha]_D^{21} -41.0$ (*c* 1.00, MeOH)

Source of chirality: (1*S*)-(+)-10-camphor-sulfonyl chloride

Absolute configuration: axial chiral,
unidentified; central chiral, *S*

M. Manuel Cruz Silva, M. Luisa Sá e Melo, Marco Parolin,
Davide Tessaro, Sergio Riva* and Bruno Danieli

Tetrahedron: Asymmetry 15 (2004) 21



$C_{18}H_{13}NO_2$

(*S*)-1-Cyano-1-(anthracene-9-yl)-methyl acetate

Ee = 91.7%

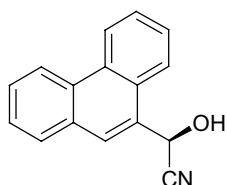
$[\alpha]_D^{25} +48.6$ (*c* 1.23, $CHCl_3$)

Source of chirality: Enzymatic kinetic
resolution

Absolute configuration: *S*

M. Manuel Cruz Silva, M. Luisa Sá e Melo, Marco Parolin,
Davide Tessaro, Sergio Riva* and Bruno Danieli

Tetrahedron: Asymmetry 15 (2004) 21



$C_{16}H_{11}NO$

(*R*)-2-Hydroxy-2-(phenanthrene-9-yl)-acetonitrile

Ee = 77.3%

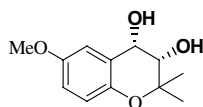
$[\alpha]_D^{25} +39.7$ (c 1.27, $CHCl_3$)

Source of chirality: Enzymatic kinetic resolution

Absolute configuration: *R*

Qiaoling Wang, Xuegong She, Xinfeng Ren, Junying Ma and
Xinfu Pan*

Tetrahedron: Asymmetry 15 (2004) 29



$C_{12}H_{16}O_4$

(*3S,4S*)-3,4-Dihydroxy-6-methoxy-2,2-dimethyl-chroman

Ee = 70%

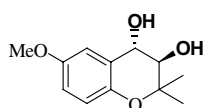
$[\alpha]_D^{25} = -8.4$ (c 3.1, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Qiaoling Wang, Xuegong She, Xinfeng Ren, Junying Ma and
Xinfu Pan*

Tetrahedron: Asymmetry 15 (2004) 29



$C_{12}H_{16}O_4$

(*3R,4S*)-3,4-Dihydroxy-6-methoxy-2,2-dimethyl-chroman

Ee = 97%

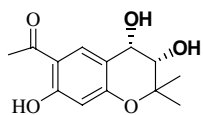
$[\alpha]_D^{25} = -31$ (c 3.2, acetone)

Source of chirality: asymmetric synthesis

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

Qiaoling Wang, Xuegong She, Xinfeng Ren, Junying Ma and
Xinfu Pan*

Tetrahedron: Asymmetry 15 (2004) 29



$C_{13}H_{16}O_5$

(*3R,4S*)-6-Acetyl-3,4,7-trihydroxy-2,2-dimethyl-chroman

Ee = 70%

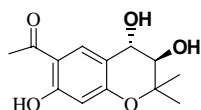
$[\alpha]_D^{25} = -37$ (c 0.67, acetone)

Source of chirality: asymmetric synthesis

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

Qiaoling Wang, Xuegong She, Xinfeng Ren, Junying Ma and Xinfu Pan*

Tetrahedron: Asymmetry 15 (2004) 29



(3*R*,4*S*)-6-Acetyl-3,4,7-trihydroxy-2,2-dimethyl-chroman

Ee = 97%

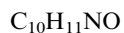
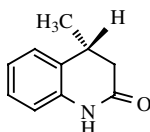
$[\alpha]_D^{25} = -104$ (c 1.4, acetone)

Source of chirality: asymmetric synthesis

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

Chune Dong and Howard Alper*

Tetrahedron: Asymmetry 15 (2004) 35



3,4-Dihydro-4-methyl-2-(1*H*)-quinolin-2-one

Ee = 58%

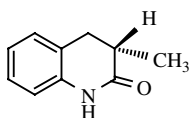
$[\alpha]_D^{22} = +47.4$ (c 2.89, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

Chune Dong and Howard Alper*

Tetrahedron: Asymmetry 15 (2004) 35



3,4-Dihydro-3-methyl-2-(1*H*)-quinolin-2-one

Ee = 18%

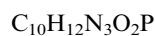
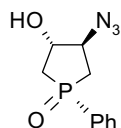
$[\alpha]_D^{22} = -2.1$ (c 1.66, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Zbigniew Pakulski and K. Michał Pietrusiewicz*

Tetrahedron: Asymmetry 15 (2004) 41



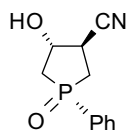
Ee = 28%

$[\alpha]_D^{20} = -20.3$ (c 0.82, chloroform)

Source of chirality: asymmetric synthesis

Zbigniew Pakulski and K. Michał Pietrusiewicz*

Tetrahedron: Asymmetry 15 (2004) 41



$C_{11}H_{12}NO_2P$

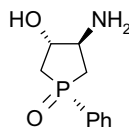
Ee = 72%

$[\alpha]_D^{20} +28.3$ (c 0.7, chloroform-methanol, 95:5)

Source of chirality: asymmetric synthesis

Zbigniew Pakulski and K. Michał Pietrusiewicz*

Tetrahedron: Asymmetry 15 (2004) 41



$C_{10}H_{14}NO_2P$

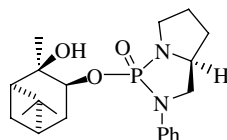
Ee = 28%

$[\alpha]_D^{20} -6.4$ (c 1.9, chloroform-methanol, 4:1)

Source of chirality: asymmetric synthesis

Deevi Basavaiah,* Gone Jayapal Reddy and Vanampally Chandrashekar

Tetrahedron: Asymmetry 15 (2004) 47



$C_{21}H_{31}N_2O_3P$

(5S)-2-[(1R,2R,3S,5R)-2-Hydroxy-2,6,6-trimethylbicyclo[3.1.1]heptan-3-yloxy]-1,3-diaza-2-phospha-2-oxo-3-phenylbicyclo[3.3.0]octane

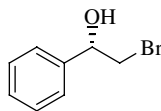
$[\alpha]_D^{25} -22.3$ (c 1.05, $CHCl_3$)

Source of chirality: L-glutamic acid and (1R,2R,3S,5R)-2,6,6-trimethylbicyclo[3.1.1]heptane-2,3-diol

Absolute configuration: 5S,1'R,2'R,3'S,5'R

Deevi Basavaiah,* Gone Jayapal Reddy and Vanampally Chandrashekar

Tetrahedron: Asymmetry 15 (2004) 47



C_8H_9OBr

(S)-2-Bromo-1-phenylethanol

Ee = 91%

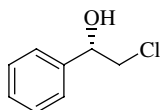
$[\alpha]_D^{25} +41.5$ (c 1.2, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: S

Deevi Basavaiah,* Gone Jayapal Reddy and
Vanampally Chandrashekar

Tetrahedron: Asymmetry 15 (2004) 47



C_8H_9OCl

(*S*)-2-Chloro-1-phenylethanol

Ee = 86%

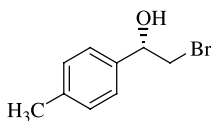
$[\alpha]_D^{25} +42.1$ (c 1.0, C_6H_{12})

Source of chirality: asymmetric reduction

Absolute configuration: *S*

Deevi Basavaiah,* Gone Jayapal Reddy and
Vanampally Chandrashekar

Tetrahedron: Asymmetry 15 (2004) 47



$C_9H_{11}OBr$

(*S*)-2-Bromo-1-(4-methylphenyl)ethanol

Ee = 91%

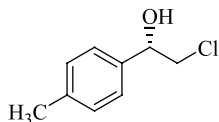
$[\alpha]_D^{25} +39.9$ (c 1.1, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: *S*

Deevi Basavaiah,* Gone Jayapal Reddy and
Vanampally Chandrashekar

Tetrahedron: Asymmetry 15 (2004) 47



$C_9H_{11}OCl$

(*S*)-2-Chloro-1-(4-methylphenyl)ethanol

Ee = 88%

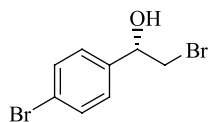
$[\alpha]_D^{25} +44.0$ (c 1.0, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: *S*

Deevi Basavaiah,* Gone Jayapal Reddy and
Vanampally Chandrashekar

Tetrahedron: Asymmetry 15 (2004) 47



$C_8H_8OBr_2$

(*S*)-2-Bromo-1-(4-bromophenyl)ethanol

Ee = 96%

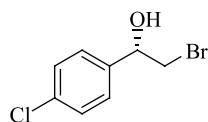
$[\alpha]_D^{25} +33.8$ (c 2.4, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: *S*

Deevi Basavaiah,* Gone Jayapal Reddy and
Vanampally Chandrashekar

Tetrahedron: Asymmetry 15 (2004) 47



(*S*)-2-Bromo-1-(4-chlorophenyl)ethanol

Ee = 89%

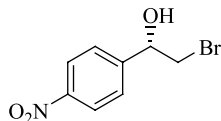
$[\alpha]_D^{25} +39.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: *S*

Deevi Basavaiah,* Gone Jayapal Reddy and
Vanampally Chandrashekar

Tetrahedron: Asymmetry 15 (2004) 47



(*S*)-2-Bromo-1-(4-nitrophenyl)ethanol

Ee = 92%

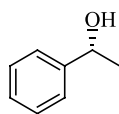
$[\alpha]_D^{25} +33.2$ (*c* 1.0, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: *S*

Deevi Basavaiah,* Gone Jayapal Reddy and
Vanampally Chandrashekar

Tetrahedron: Asymmetry 15 (2004) 47



(*R*)-1-Phenylethanol

Ee = 63%

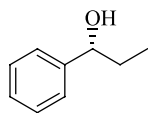
$[\alpha]_D^{25} +29.0$ (*c* 1.0, MeOH)

Source of chirality: asymmetric reduction

Absolute configuration: *R*

Deevi Basavaiah,* Gone Jayapal Reddy and
Vanampally Chandrashekar

Tetrahedron: Asymmetry 15 (2004) 47



(*R*)-1-Phenylpropan-1-ol

Ee = 67%

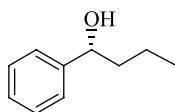
$[\alpha]_D^{25} +30.7$ (*c* 1.9, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: *R*

Deevi Basavaiah,* Gone Jayapal Reddy and
Vanampally Chandrashekar

Tetrahedron: Asymmetry 15 (2004) 47



$C_{10}H_{14}O$

(*R*)-1-Phenylbutan-1-ol

Ee = 59%

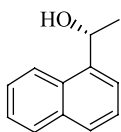
$[\alpha]_D^{25} +28.0$ (c 0.7, benzene)

Source of chirality: asymmetric reduction

Absolute configuration: *R*

Deevi Basavaiah,* Gone Jayapal Reddy and
Vanampally Chandrashekar

Tetrahedron: Asymmetry 15 (2004) 47



$C_{12}H_{12}O$

(*R*)-1-(Naphth-1-yl)ethanol

Ee = 63%

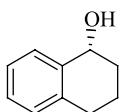
$[\alpha]_D^{25} +50.3$ (c 1.08, ether)

Source of chirality: asymmetric reduction

Absolute configuration: *R*

Deevi Basavaiah,* Gone Jayapal Reddy and
Vanampally Chandrashekar

Tetrahedron: Asymmetry 15 (2004) 47



$C_{10}H_{12}O$

(*R*)-1,2,3,4-Tetrahydronaphth-1-ol

Ee = 70%

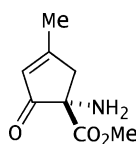
$[\alpha]_D^{25} -16.4$ (c 0.75, MeOH)

Source of chirality: asymmetric reduction

Absolute configuration: *R*

Mioara Andrei and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 53



$C_8H_{11}NO_3$

(1*S*)-1-Amino-4-methyl-2-oxo-cyclopent-3-enecarboxylic acid methyl ester

Ee = 100%

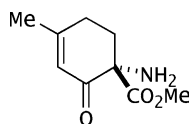
$[\alpha]_D^{20} +34.2$ (c 0.77, CH_2Cl_2)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (1*S*)

Mioara Andrei and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 53



$C_9H_{13}NO_3$

(1*S*)-1-Amino-4-methyl-2-oxo-cyclohex-3-enecarboxylic acid methyl ester

Ee = 100%

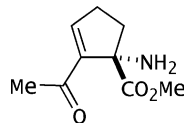
$[\alpha]_D^{20} -39.8$ (*c* 1.28, $CHCl_3$)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (1*S*)

Mioara Andrei and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 53



$C_9H_{13}NO_3$

(1*S*)-2-Acetyl-1-amino-cyclopent-2-enecarboxylic acid methyl ester

Ee = 100%

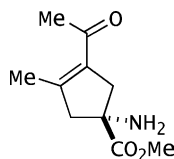
$[\alpha]_D^{20} +74.2$ (*c* 1.00, CH_2Cl_2)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (1*S*)

Mioara Andrei and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 53



$C_{10}H_{15}NO_3$

(1*R*)-3-Acetyl-1-amino-4-methylcyclopent-3-enecarboxylic acid methyl ester

Ee = 100%

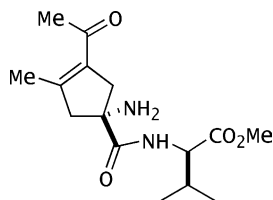
$[\alpha]_D^{20} +40.0$ (*c* 1.00, CH_2Cl_2)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (1*R*)

Mioara Andrei and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 53



$C_{15}H_{24}N_2O_4$

(1'*R*,2*R*)-2-[(3-Acetyl-1-amino-4-methylcyclopent-3-enecarbonyl)amino]-3-methylbutyric acid methyl ester

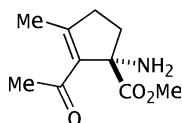
Ee = 100%

$[\alpha]_D^{20} +41.3$ (*c* 1.00, CH_2Cl_2)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

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

Tetrahedron: Asymmetry 15 (2004) 53


$$\text{C}_{10}\text{H}_{15}\text{NO}_3$$

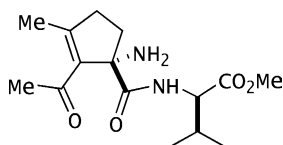
(1*S*)-2-Acetyl-1-amino-3-methyl-cyclopent-2-enecarboxylic acid methyl ester

$$E_e = 100\%$$
$$[\alpha]_{\text{D}}^{20} +81.9 \text{ (} c \text{ 0.76, CH}_2\text{Cl}_2\text{)}$$

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (1*S*)

Tetrahedron: Asymmetry 15 (2004) 53


$$\text{C}_{15}\text{H}_{24}\text{N}_2\text{O}_4$$

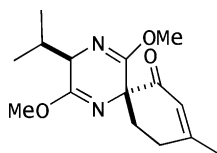
(1'*S*,2*R*)-2-[(2-Acetyl-1-amino-3-methylcyclopent-2-enecarbonyl)amino]-3-methylbutyric acid methyl ester

$$E_e = 100\%$$
$$[\alpha]_{\text{D}}^{20} +52.8 \text{ (} c \text{ 0.50, CH}_2\text{Cl}_2\text{)}$$

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (1'S,2R)

Tetrahedron: Asymmetry 15 (2004) 53


$$\text{C}_{15}\text{H}_{22}\text{N}_2\text{O}_3$$

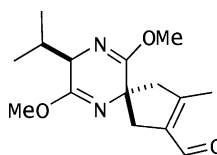
(3*R*,6*R*)-3-Isopropyl-2,5-dimethoxy-9-methyl-1,4-diazaspiro[5.5]undeca-1,4,8-trien-7-one

$$E_e = 100\%$$
$$[\alpha]_{\text{D}}^{20} -23.6 \text{ (} c \text{ 1.28, CHCl}_3 \text{)}$$

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

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

Tetrahedron: Asymmetry 15 (2004) 53


$$\text{C}_{15}\text{H}_{22}\text{N}_2\text{O}_3$$

(5*R*,8*R*)-8-Isopropyl-7,10-dimethoxy-3-methyl-6,9-diazaspiro[4.5]deca-2,6,9-triene-2-carbaldehyde

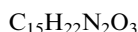
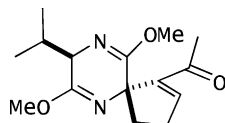
$$E_e = 100\%$$
$$[\alpha]_{\text{D}}^{20} -70.2 \text{ (} c \text{ 1.00, CHCl}_3 \text{)}$$

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (5*R*,8*R*)

Mioara Andrei and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 53



(5*S*,8*R*)-1-(8-Isopropyl-7,10-dimethoxy-6,9-diazaspiro[4.5]deca-1,6,9-trien-1-yl)ethanone

Ee = 100%

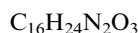
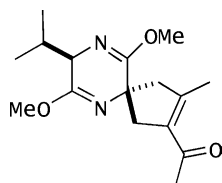
$[\alpha]_D^{20} +30.7$ (*c* 1.55, $CHCl_3$)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (5*S*,8*R*)

Mioara Andrei and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 53



(5*R*,8*R*)-1-(8-Isopropyl-7,10-dimethoxy-3-methyl-6,9-diazaspiro[4.5]deca-2,6,9-trien-2-yl)ethanone

Ee = 100%

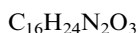
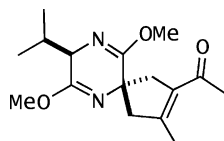
$[\alpha]_D^{20} -57.3$ (*c* 1.00, $CHCl_3$)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (5*R*,8*R*)

Mioara Andrei and Kjell Undheim*

Tetrahedron: Asymmetry 15 (2004) 53



(5*S*,8*R*)-1-(8-Isopropyl-7,10-dimethoxy-2-methyl-6,9-diazaspiro[4.5]deca-1,6,9-trien-1-yl)ethanone

Ee = 100%

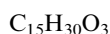
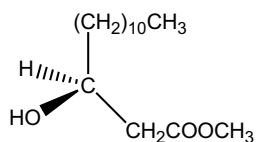
$[\alpha]_D^{20} -46.4$ (*c* 1.00, $CHCl_3$)

Source of chirality: (*R*)-2-isopropyl-3,6-dimethoxy-2,5-dihydropyrazine

Absolute configuration: (5*S*,8*R*)

Belma Hasdemir* and Ayşe Yusufoglu

Tetrahedron: Asymmetry 15 (2004) 65

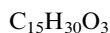
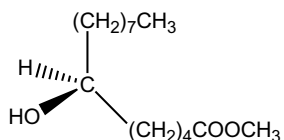


(*S*)-3-Hydroxy tetradecanoic acid methyl ester

Ee = 57%

$[\alpha]_D^{20} +10.5$ (*c* 1, $CHCl_3$)

Absolute configuration: *S*

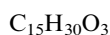
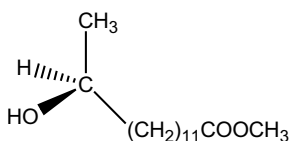


(S)-6-Hydroxy tetradecanoic acid methyl ester

Ee = 49%

$[\alpha]_{\text{D}}^{20} +6.5$ (c 1, CHCl_3)

Absolute configuration: S

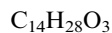
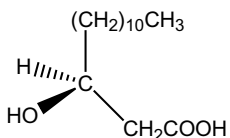


(S)-13-Hydroxy tetradecanoic acid methyl ester

Ee = 96%

$[\alpha]_{\text{D}}^{20} +22.1$ (c 1, CHCl_3)

Absolute configuration: S

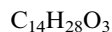
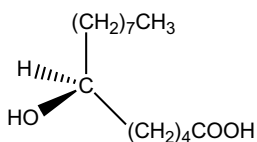


(S)-3-Hydroxy tetradecanoic acid

Ee = 57%

$[\alpha]_{\text{D}}^{20} +9.1$ (c 1, CHCl_3)

Absolute configuration: S



(S)-6-Hydroxy tetradecanoic acid

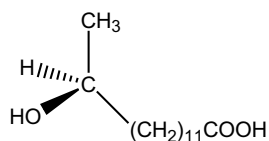
Ee = 49%

$[\alpha]_{\text{D}}^{20} +4.1$ (c 1, CHCl_3)

Absolute configuration: S

Belma Hasdemir* and Ayşe Yusufoglu

Tetrahedron: Asymmetry 15 (2004) 65



$C_{14}H_{28}O_3$

(*S*)-13-Hydroxy tetradecanoic acid

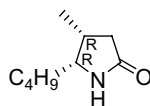
Ee = 96%

$[\alpha]_D^{20} +20.8$ (*c* 1, $CHCl_3$)

Absolute configuration: *S*

F. Felluga,* V. Gombac, M. Pavan, G. Pitacco, E. Valentin

Tetrahedron: Asymmetry 15 (2004) 69



$C_9H_{17}NO$

cis-(4*R*,5*R*)-(+)-4-Methyl-5-*n*-butyl-pyrrolidine-2-one

Ee = 93% (by chiral HRGC)

$[\alpha]_D^{25} +28.2$ (*c* 0.5, MeOH)

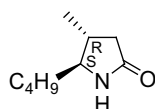
$\Delta\epsilon_{216} = -0.8$ (MeOH)

Source of chirality: enzymatic resolution

Absolute configuration: 4*R*,5*R*

F. Felluga,* V. Gombac, M. Pavan, G. Pitacco, E. Valentin

Tetrahedron: Asymmetry 15 (2004) 69



$C_9H_{17}NO$

trans-(4*R*,5*S*)-(-)-4-Methyl-5-*n*-butyl-pyrrolidine-2-one

Ee = 93% (by chiral HRGC)

$[\alpha]_D^{25} -32$ (*c* 0.5, MeOH)

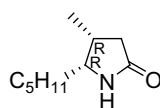
$\Delta\epsilon_{214} = +2.6$ (MeOH)

Source of chirality: enzymatic resolution

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

F. Felluga,* V. Gombac, M. Pavan, G. Pitacco, E. Valentin

Tetrahedron: Asymmetry 15 (2004) 69



$C_{10}H_{19}NO$

(4*R*,5*R*)-(-)-4-Methyl-5-*n*-pentyl-pyrrolidine-2-one

Ee = 93% (by chiral HRGC)

$[\alpha]_D^{25} +28.0$ (*c* 0.6, MeOH)

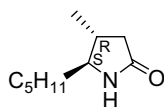
$\Delta\epsilon_{216} = -0.85$ (MeOH)

Source of chirality: enzymatic resolution

Absolute configuration: 4*R*,5*R*

F. Felluga,* V. Gombac, M. Pavan, G. Pitacco, E. Valentin

Tetrahedron: Asymmetry 15 (2004) 69



$C_{10}H_{19}NO$

(4*R*,5*S*)-(-)-4-Methyl-5-*n*-pentyl-pyrrolidine-2-one

Ee = 93% (by chiral HRGC)

$[\alpha]_D^{25} -39.0$ (c 0.3, MeOH)

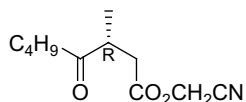
$\Delta\epsilon_{214} = 2.6$ (MeOH)

Source of chirality: enzymatic resolution

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

F. Felluga,* V. Gombac, M. Pavan, G. Pitacco, E. Valentin

Tetrahedron: Asymmetry 15 (2004) 69



$C_{11}H_{17}NO_3$

Cyanomethyl (*R*)-(+)-3-methyl-4-oxooctanoate

Ee >99% (by chiral HRGC)

$[\alpha]_D^{25} +15.7$ (c 1, MeOH)

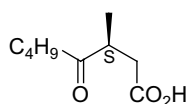
$\Delta\epsilon_{284} = +1.2$ (MeOH)

Source of chirality: enzymatic resolution

Absolute configuration: *R*

F. Felluga,* V. Gombac, M. Pavan, G. Pitacco, E. Valentin

Tetrahedron: Asymmetry 15 (2004) 69



$C_9H_{16}O_3$

(*S*)-(-)-3-Methyl-4-oxooctanoic acid

Ee = 96% (by chiral HRGC)

$[\alpha]_D^{25} -22.6$ (c 0.4, MeOH)

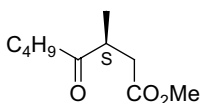
$\Delta\epsilon_{282} = 0.80$ (MeOH)

Source of chirality: enzymatic resolution

Absolute configuration: *R*

F. Felluga,* V. Gombac, M. Pavan, G. Pitacco, E. Valentin

Tetrahedron: Asymmetry 15 (2004) 69



$C_{10}H_{18}O_3$

Methyl (*S*)-(-)-3-methyl-4-oxooctanoate

Ee = 96% (by chiral HRGC)

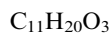
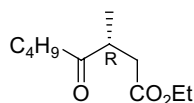
$[\alpha]_D^{25} -21$ (c 0.5, MeOH)

Source of chirality: enzymatic resolution

Absolute configuration: *S*

F. Felluga,* V. Gombac, M. Pavan, G. Pitacco, E. Valentin

Tetrahedron: Asymmetry 15 (2004) 69



Ethyl (*R*)-(+)-3-methyl-4-oxooctanoate

Ee = 70% (by chiral HRGC)

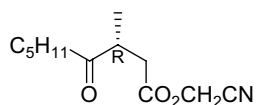
$[\alpha]_D^{25} +15$ (*c* 0.9, MeOH)

Source of chirality: enzymatic resolution

Absolute configuration: *R*

F. Felluga,* V. Gombac, M. Pavan, G. Pitacco, E. Valentin

Tetrahedron: Asymmetry 15 (2004) 69



Cyanomethyl (*R*)-(+)-3-methyl-4-oxononanoate

Ee >99% (by chiral HRGC)

$[\alpha]_D^{25} +15.9$ (*c* 0.95, MeOH)

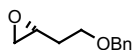
$\Delta\epsilon_{284} = +1.0$ (MeOH)

Source of chirality: enzymatic resolution

Absolute configuration: *R*

J. S. Yadav* and P. Srihari

Tetrahedron: Asymmetry 15 (2004) 81



2-(2-Benzyloxyethyl)-(2*R*)-oxirane

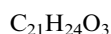
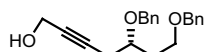
$[\alpha]_D = +16.8$ (*c* 2.75, $CHCl_3$)

Source of chirality: hydrolytic kinetic resolution

Absolute configuration: 2*R*

J. S. Yadav* and P. Srihari

Tetrahedron: Asymmetry 15 (2004) 81



5,7-Di(dibenzyloxy)-(5*S*)-2-heptynyl alcohol

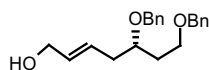
$[\alpha]_D = +27.9$ (*c* 7.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: 5*S*

J. S. Yadav* and P. Srihari

Tetrahedron: Asymmetry 15 (2004) 81



$C_{21}H_{26}O_3$

5,7-Di(benzyloxy)-(E,5S)-2-hepten-1-ol

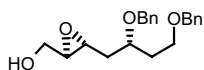
$[\alpha]_D = +34.1$ (c 3.7 $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: 5S

J. S. Yadav* and P. Srihari

Tetrahedron: Asymmetry 15 (2004) 81



$C_{21}H_{26}O_4$

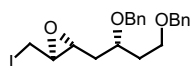
3-[2,4-Di(benzyloxy)-(2R)-butyl]-(2R,3R)-oxiran-2-yl methanol

$[\alpha]_D = +35.2$ (c 7.2, $CHCl_3$)

Source of chirality: asymmetric synthesis

J. S. Yadav* and P. Srihari

Tetrahedron: Asymmetry 15 (2004) 81



$C_{21}H_{25}IO_3$

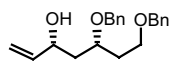
2,4-Di(benzyloxy)-1-[3-iodomethyl-(2R,3S)-oxiran-2-yl]-(2R)-butane

$[\alpha]_D = +6.5$ (c 5.1, $CHCl_3$)

Source of chirality: asymmetric synthesis

J. S. Yadav* and P. Srihari

Tetrahedron: Asymmetry 15 (2004) 81



$C_{21}H_{26}O_3$

5,7-Di(benzyloxy)-(3R,5R)-1-hepten-3-ol

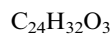
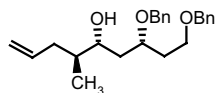
$[\alpha]_D = -23.8$ (c 5.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: 3R,5R

J. S. Yadav* and P. Srihari

Tetrahedron: Asymmetry 15 (2004) 81



7,9-Di(benzyloxy)-4-methyl-(4*S*,5*R*,7*R*)-1-nonen-5-ol

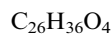
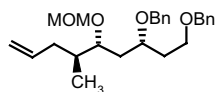
$[\alpha]_D = +31.1$ (*c* 0.75, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: 4*S*,5*R*,7*R*

J. S. Yadav* and P. Srihari

Tetrahedron: Asymmetry 15 (2004) 81



7,9-Di(benzyloxy)-5-methoxymethoxy-4-methyl-(4*S*,5*R*,7*R*)-1-nonene

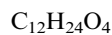
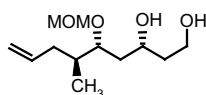
$[\alpha]_D = +34.3$ (*c* 5.4, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: 4*S*,5*R*,7*R*

J. S. Yadav* and P. Srihari

Tetrahedron: Asymmetry 15 (2004) 81



5-Methoxymethoxy-6-methyl-(3*R*,5*R*,6*S*)-8-nonene-1,3-diol

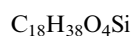
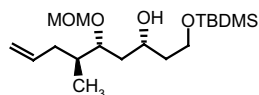
$[\alpha]_D = +43.4$ (*c* 8.75, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

J. S. Yadav* and P. Srihari

Tetrahedron: Asymmetry 15 (2004) 81



1-(*tert*-Butyldimethylsilyloxy)-5-methoxymethoxy-6-methyl-(3*R*,5*R*,6*S*)-8-nonen-3-ol

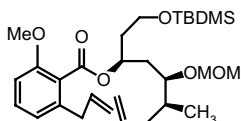
$[\alpha]_D = +22.3$ (*c* 3.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

J. S. Yadav* and P. Srihari

Tetrahedron: Asymmetry 15 (2004) 81



$C_{29}H_{48}O_6Si$

1-[2-(*tert*-Butyldimethylsilyloxy)ethyl]-3-methoxymethoxy-4-methyl-(1*S*,3*R*,4*S*)-6-heptenyl 2-allyl-6-methoxybenzoate

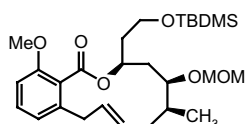
$[\alpha]_D = -3.5$ (*c* 4.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

J. S. Yadav* and P. Srihari

Tetrahedron: Asymmetry 15 (2004) 81



$C_{27}H_{44}O_6Si$

3-[2-(*tert*-Butyldimethylsilyloxy)ethyl]-14-methoxy-5-methoxymethoxy-6-methyl-(3*S*,5*R*,6*S*)-1*H*,4*H*,5*H*,6*H*,7*H*,10*H*-benzo[*c*]oxacyclododecin-1-one

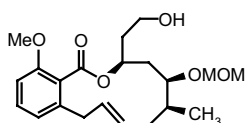
$[\alpha]_D = -58.5$ (*c* 3.0, MeOH)

Source of chirality: asymmetric synthesis

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

J. S. Yadav* and P. Srihari

Tetrahedron: Asymmetry 15 (2004) 81



$C_{21}H_{30}O_6$

3-(2-Hydroxyethyl)-14-methoxy-5-methoxymethoxy-6-methyl-(3*S*,5*R*,6*S*)-1*H*,4*H*,5*H*,6*H*,7*H*,10*H*-benzo[*c*]oxacyclododecin-1-one

$[\alpha]_D = -38.8$ (*c* 1.0, $CHCl_3$)

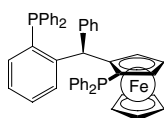
Lit^{2e} $[\alpha]_D = -34.5$ (*c* 1.0, $CHCl_3$).

Source of chirality: asymmetric synthesis

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

Katja Tappe and Paul Knochel*

Tetrahedron: Asymmetry 15 (2004) 91



$C_{47}H_{38}FeP_2$

(*R*_{FC})-1-Diphenylphosphino-2-[3-(*R*)-(*o*-diphenylphosphino)phenylmethyl]ferrocene

Ee >99%

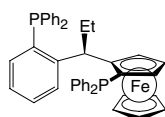
$[\alpha]_D +26.4$ (*c* 0.58, $CHCl_3$)

Source of chirality: stereoselective synthesis

Absolute configuration: *R*_{FC},*R*

Katja Tappe and Paul Knochel*

Tetrahedron: Asymmetry 15 (2004) 91



$C_{43}H_{38}FeP_2$

(R_{Fc})-1-Diphenylphosphino-2-[3-(R)-(o-diphenylphosphino)propyl]ferrocene

Ee >99%

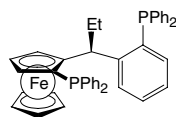
$[\alpha]_D +313.1$ (c 0.19, $CHCl_3$)

Source of chirality: stereoselective synthesis

Absolute configuration: R_{Fc}, R

Katja Tappe and Paul Knochel*

Tetrahedron: Asymmetry 15 (2004) 91



$C_{43}H_{38}FeP_2$

(S_{Fc})-1-Diphenylphosphino-2-[3-(S)-(o-diphenylphosphino)propyl]ferrocene

Ee >99%

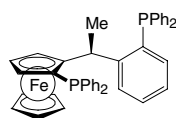
$[\alpha]_D -314.7$ (c 0.27, $CHCl_3$)

Source of chirality: stereoselective synthesis

Absolute configuration: S_{Fc}, S

Katja Tappe and Paul Knochel*

Tetrahedron: Asymmetry 15 (2004) 91



$C_{42}H_{36}FeP_2$

(S_{Fc})-1-Diphenylphosphino-2-[3-(S)-(o-diphenylphosphino)ethyl]ferrocene

Ee >99%

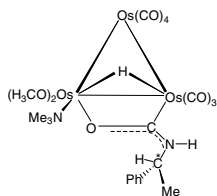
$[\alpha]_D -209.4$ (c 0.57, $CHCl_3$)

Source of chirality: stereoselective synthesis

Absolute configuration: S_{Fc}, S

Victoria A. Ershova,* Vladimir M. Pogrebnyak, Anatoly V. Golovin,
Alexander V. Virovets and Peter P. Semyannikov

Tetrahedron: Asymmetry 15 (2004) 109



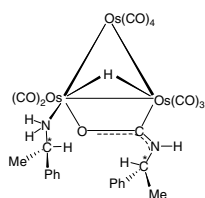
$[\alpha]_D^{20} = +3$ (c 1, $CHCl_3$)

Source of chirality: molecular chirality,
1-phenylethylamino ligand, resolution

1,1,1,2,2,3,3,3-Nonacarbonyl-1,2-μ-hydrido-2-trimethylamine-1,2-μ-[(R)-1-phenylethylaminocarbonyl]triangulo-triosmium

Victoria A. Ershova,* Vladimir M. Pogrebnyak, Anatoly V. Golovin,
Alexander V. Virovets and Peter P. Semyannikov

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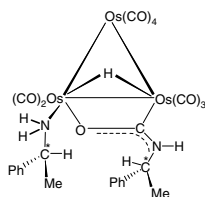
$$[\alpha]_{\text{D}}^{20} = -6 \text{ (c 1, CHCl}_3\text{)}$$

Source of chirality: molecular chirality,
1-phenylethylamino ligands, resolution

1,1,1,2,2,3,3,3,3-Nonacarbonyl-1,2- μ -hydrido-2-(*R*)-1-phenylethylamine-1,2- μ -[(*R*)-1-phenylethylaminocarbonyl]]triangulo-triosmium

Victoria A. Ershova,* Vladimir M. Pogrebnyak, Anatoly V. Golovin,
Alexander V. Virovets and Peter P. Semyannikov

Tetrahedron: Asymmetry 15 (2004) 109



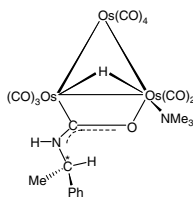
$$[\alpha]_{\text{D}}^{20} = -17 \text{ (c 1, CHCl}_3\text{)}$$

Source of chirality: molecular chirality,
1-phenylethylamino ligands, resolution

1,1,1,2,2,3,3,3,3-Nonacarbonyl-1,2- μ -hydrido-2-(*S*)-1-phenylethylamine-1,2- μ -[(*R*)-1-phenylethylaminocarbonyl]]triangulo-triosmium

Victoria A. Ershova,* Vladimir M. Pogrebnyak, Anatoly V. Golovin,
Alexander V. Virovets and Peter P. Semyannikov

Tetrahedron: Asymmetry 15 (2004) 109



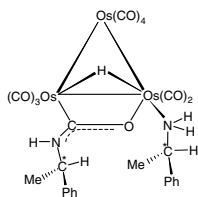
$$[\alpha]_{\text{D}}^{20} = +45 \text{ (c 1, CHCl}_3\text{)}$$

Source of chirality: molecular chirality,
1-phenylethylamino ligand, resolution

1,1,1,2,2,3,3,3,3-Nonacarbonyl-1,2- μ -hydrido-2-trimethylamine-1,2- μ -[(*R*)-1-phenylethylaminocarbonyl]]triangulo-triosmium

Victoria A. Ershova,* Vladimir M. Pogrebnyak, Anatoly V. Golovin,
Alexander V. Virovets and Peter P. Semyannikov

Tetrahedron: Asymmetry 15 (2004) 109



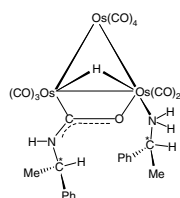
$$[\alpha]_{\text{D}}^{20} = +69 \text{ (c 1, CHCl}_3\text{)}$$

Source of chirality: molecular chirality,
1-phenylethylamino ligands, resolution

1,1,1,2,2,3,3,3,3-Nonacarbonyl-1,2- μ -hydrido-2-(*R*)-1-phenylethylamine-1,2- μ -[(*R*)-1-phenylethylaminocarbonyl]]triangulo-triosmium

Victoria A. Ershova,* Vladimir M. Pogrebnyak, Anatoly V. Golovin,
Alexander V. Virovets and Peter P. Semyannikov

Tetrahedron: Asymmetry 15 (2004) 109



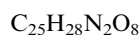
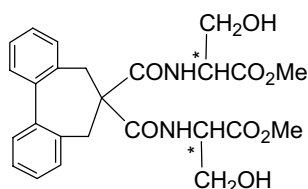
$$[\alpha]_{\text{D}}^{20} = +59 \text{ (} c \text{ 1, CHCl}_3 \text{)}$$

Source of chirality: molecular chirality,
1-phenylethylamino ligands, resolution

1,1,1,2,2,3,3,3,3-Nonacarbonyl-1,2- μ -hydrido-2-(*S*)-1-phenylethylamine-1,2- μ -[(*R*)-1-phenylethylaminocarbonyl]triangulo-triosmium

Bin Fu, Da-Ming Du* and Jianbo Wang

Tetrahedron: Asymmetry 15 (2004) 119



6,6-Bis[*N*-(1'*S*)-(1-(methoxycarbonyl)hydroxyethyl)amido]-dibenzo[*a,c*]-1,3-cycloheptadiene

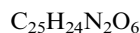
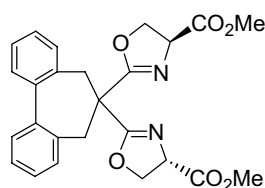
Ee = 99%

$$[\alpha]_{\text{D}}^{20} = -15.3 \text{ (} c \text{ 0.30, CHCl}_3 \text{)}$$

Source of chirality: L-serine
Absolute configuration: (*S,S*)

Bin Fu, Da-Ming Du* and Jianbo Wang

Tetrahedron: Asymmetry 15 (2004) 119



6,6-Bis[(4'*S*)-4'-(methoxycarbonyl)oxazolin-2'-yl]-dibenzo[*a,c*]-1,3-cycloheptadiene

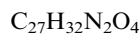
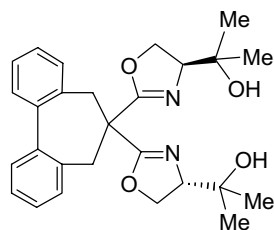
Ee = 99%

$$[\alpha]_{\text{D}}^{20} = +74.9 \text{ (} c \text{ 0.69, CHCl}_3 \text{)}$$

Source of chirality: L-serine
Absolute configuration: (*S,S*)

Bin Fu, Da-Ming Du* and Jianbo Wang

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6,6-Bis[(4'*S*)-4'-(isopropanolyl)oxazolin-2'-yl]-dibenzo[*a,c*]-1,3-cycloheptadiene

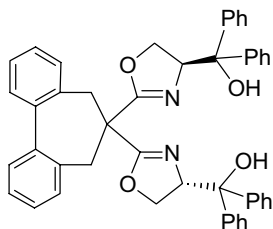
Ee = 99%

$$[\alpha]_{\text{D}}^{20} = +73.8 \text{ (} c \text{ 0.40, CHCl}_3 \text{)}$$

Source of chirality: L-serine
Absolute configuration: (*S,S*)

Bin Fu, Da-Ming Du* and Jianbo Wang

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$C_{47}H_{40}N_2O_4$

Bis[(4'*S*)-4'-(diphenylmethanol)oxazolin-2'-yl]-dibenzo[*a,c*]-1,3-cycloheptadiene

Ee = 98%

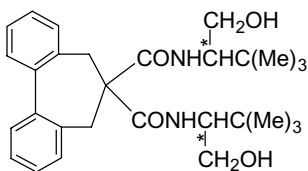
$[\alpha]_D^{20} = -7.8$ (*c* 0.45, $CHCl_3$)

Source of chirality: L-serine

Absolute configuration: (*S,S*)

Bin Fu, Da-Ming Du* and Jianbo Wang

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$C_{29}H_{40}N_2O_4$

6,6-Bis[*N*-(1'*S*)-(1'-*tert*-butyl)hydroxyethyl]amido]-dibenzo[*a,c*]-1,3-cycloheptadiene

Ee = 98%

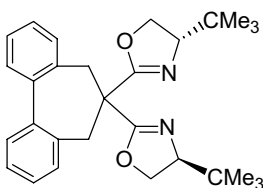
$[\alpha]_D^{20} = -13.3$ (*c* 0.23, $CHCl_3$)

Source of chirality: (*S*)-*tert*-leucinol

Absolute configuration: (*S,S*)

Bin Fu, Da-Ming Du* and Jianbo Wang

Tetrahedron: Asymmetry 15 (2004) 119



$C_{29}H_{36}N_2O_2$

6,6-Bis[(4'*S*)-4'-(*tert*-butyl)oxazolin-2'-yl]-dibenzo[*a,c*]-1,3-cycloheptadiene

Ee = 98%

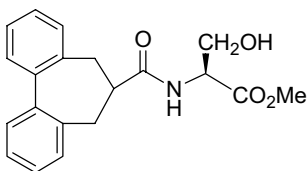
$[\alpha]_D^{20} = -44.6$ (*c* 0.18, $CHCl_3$)

Source of chirality: (*S*)-*tert*-leucinol

Absolute configuration: (*S,S*)

Bin Fu, Da-Ming Du* and Jianbo Wang

Tetrahedron: Asymmetry 15 (2004) 119



$C_{20}H_{21}NO_4$

6-[*N*-(1'*S*)-(1'-Methoxycarbonyl)hydroxyethyl]amido]-dibenzo[*a,c*]-1,3-cycloheptadiene

Ee = 99%

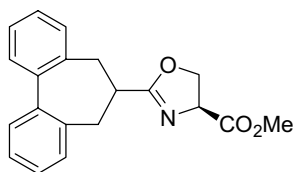
$[\alpha]_D^{20} = +20.0$ (*c* 0.21, $CHCl_3$)

Source of chirality: L-serine

Absolute configuration: (*S*)

Bin Fu, Da-Ming Du* and Jianbo Wang

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6-[N-(4'S)-(4'-Methoxycarbonyl)oxazolin-2'-yl]-dibenzo[a,c]-1,3-cycloheptadiene

Ee = 99%

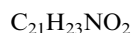
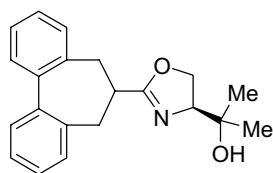
$[\alpha]_D^{20} = +27.1$ (c 0.15, $CHCl_3$)

Source of chirality: L-serine

Absolute configuration: (S)

Bin Fu, Da-Ming Du* and Jianbo Wang

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6-[N-(4'S)-(4'-Isopropanolyl)oxazolin-4'-yl]-dibenzo[a,c]-1,3-cycloheptadiene

Ee = 99%

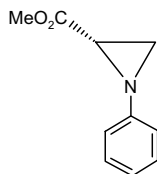
$[\alpha]_D^{20} = +17.6$ (c 0.42, $CHCl_3$)

Source of chirality: L-serine

Absolute configuration: (S)

H. M. Sampath Kumar,* M. Shesha Rao, P. Pawan Chakravarthi and J. S. Yadav

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Methyl N-(phenyl)aziridine-2-carboxylates

Ee = 84%

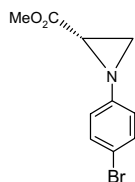
$[\alpha]_D^{25} -173.2$ (c 0.25, $CHCl_3$)

Source of chirality: lipase catalyzed kinetic resolution

Absolute configuration: S

H. M. Sampath Kumar,* M. Shesha Rao, P. Pawan Chakravarthi and J. S. Yadav

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Methyl N-(p-bromophenyl)aziridine-2-carboxylates

Ee = 99%

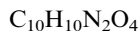
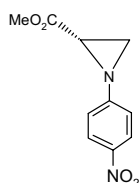
$[\alpha]_D^{25} -156.7$ (c 0.25, $CHCl_3$)

Source of chirality: lipase catalyzed kinetic resolution

Absolute configuration: S

H. M. Sampath Kumar,* M. Shesha Rao, P. Pawan Chakravarthy
and J. S. Yadav

Tetrahedron: Asymmetry 15 (2004) 127



Methyl *N*-(*p*-nitrophenyl)aziridine-2-carboxylates

Ee = 12%

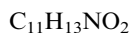
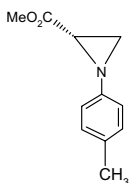
$[\alpha]_D^{25} -40.3$ (*c* 0.5, CHCl₃)

Source of chirality: lipase catalyzed
kinetic resolution

Absolute configuration: *S*

H. M. Sampath Kumar,* M. Shesha Rao, P. Pawan Chakravarthy
and J. S. Yadav

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Methyl *N*-(*p*-methylphenyl)aziridine-2-carboxylates

Ee = 70%

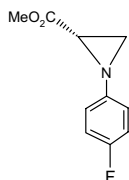
$[\alpha]_D^{25} -195.5$ (*c* 0.25, CHCl₃)

Source of chirality: lipase catalyzed
kinetic resolution

Absolute configuration: *S*

H. M. Sampath Kumar,* M. Shesha Rao, P. Pawan Chakravarthy
and J. S. Yadav

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Methyl *N*-(*p*-fluorophenyl)aziridine-2-carboxylates

Ee = 7%

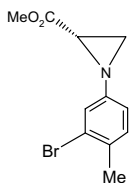
$[\alpha]_D^{25} -18.4$ (*c* 0.25, CHCl₃)

Source of chirality: lipase catalyzed
kinetic resolution

Absolute configuration: *S*

H. M. Sampath Kumar,* M. Shesha Rao, P. Pawan Chakravarthy
and J. S. Yadav

Tetrahedron: Asymmetry 15 (2004) 127



Methyl *N*-(2-bromo-4-methylphenyl)aziridine-2-carboxylate

Ee = 15%

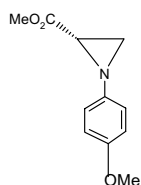
$[\alpha]_D^{25} -15.9$ (*c* 0.25, CHCl₃)

Source of chirality: lipase catalyzed
kinetic resolution

Absolute configuration: *S*

H. M. Sampath Kumar,* M. Shesha Rao, P. Pawan Chakravarthy
and J. S. Yadav

Tetrahedron: Asymmetry 15 (2004) 127



$C_{11}H_{13}NO_3$

Methyl *N*-(*p*-methylphenyl)aziridine-2-carboxylates

Ee = 79%

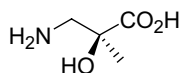
$[\alpha]_D^{25} -184.3$ (*c* 0.5, $CHCl_3$)

Source of chirality: lipase catalyzed
kinetic resolution

Absolute configuration: *S*

Alberto Avenoza,* Jesús H. Busto, Francisco Corzana,
Gonzalo Jiménez-Osés, Miguel París, Jesús M. Peregrina,*
David Sucunza and María M. Zurbano

Tetrahedron: Asymmetry 15 (2004) 131



$C_4H_9NO_3$

3-Amino-2-hydroxy-2-methylpropionic acid

Ee >93%

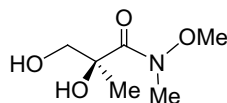
$[\alpha]_D^{25} +2.9$ (*c* 1.01, H_2O)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Alberto Avenoza,* Jesús H. Busto, Francisco Corzana,
Gonzalo Jiménez-Osés, Miguel París, Jesús M. Peregrina,*
David Sucunza and María M. Zurbano

Tetrahedron: Asymmetry 15 (2004) 131



$C_6H_{13}NO_4$

2,3-Dihydroxy-*N*-methoxy-2,*N*-dimethylpropionamide

Ee >93%

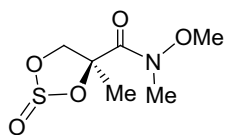
$[\alpha]_D^{25} -4.6$ (*c* 1.80, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

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Gonzalo Jiménez-Osés, Miguel París, Jesús M. Peregrina,*
David Sucunza and María M. Zurbano

Tetrahedron: Asymmetry 15 (2004) 131



$C_6H_{11}NO_5S$

4-Methyl-2-oxo-2λ⁴-[1,3,2]dioxathiolane-4-carboxylic acid *N*-methoxy-*N*-methylamide

Ee >93%

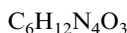
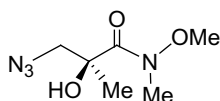
$[\alpha]_D^{25} +37.9$ (*c* 1.05, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Alberto Avenoza,* Jesús H. Busto, Francisco Corzana,
Gonzalo Jiménez-Osés, Miguel París, Jesús M. Peregrina,*
David Sucunza and María M. Zurbano

Tetrahedron: Asymmetry 15 (2004) 131



3-Azido-2-hydroxy-*N*-methoxy-2,*N*-dimethylpropionamide

Ee >93%

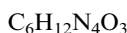
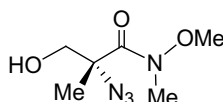
$[\alpha]_D^{25} -73.9$ (c 0.98, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Alberto Avenoza,* Jesús H. Busto, Francisco Corzana,
Gonzalo Jiménez-Osés, Miguel París, Jesús M. Peregrina,*
David Sucunza and María M. Zurbano

Tetrahedron: Asymmetry 15 (2004) 131



2-Azido-3-hydroxy-*N*-methoxy-2,*N*-dimethylpropionamide

Ee >93%

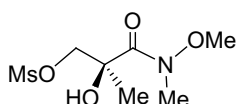
$[\alpha]_D^{25} +61.6$ (c 0.96, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: *R*

Alberto Avenoza,* Jesús H. Busto, Francisco Corzana,
Gonzalo Jiménez-Osés, Miguel París, Jesús M. Peregrina,*
David Sucunza and María M. Zurbano

Tetrahedron: Asymmetry 15 (2004) 131



Methanesulfonic acid 2-hydroxy-2-(methoxymethylcarbamoyl)propyl ester

Ee >93%

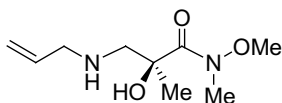
$[\alpha]_D^{25} -16.5$ (c 1.00, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Alberto Avenoza,* Jesús H. Busto, Francisco Corzana,
Gonzalo Jiménez-Osés, Miguel París, Jesús M. Peregrina,*
David Sucunza and María M. Zurbano

Tetrahedron: Asymmetry 15 (2004) 131



3-Allylamino-2-hydroxy-*N*-methoxy-2,*N*-dimethylpropionamide

Ee >93%

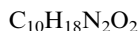
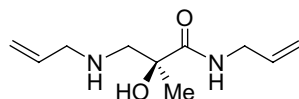
$[\alpha]_D^{25} -12.4$ (c 1.60, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Alberto Avenoza,* Jesús H. Busto, Francisco Corzana,
Gonzalo Jiménez-Osés, Miguel París, Jesús M. Peregrina,*
David Sucunza and María M. Zurbano

Tetrahedron: Asymmetry 15 (2004) 131



N-Allyl-3-allylamino-2-hydroxy-2-methylpropionamide

Ee >93%

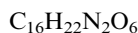
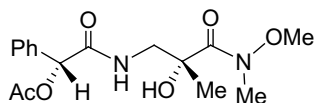
$[\alpha]_D^{25} -10.2$ (c 1.19, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: *S*

Alberto Avenoza,* Jesús H. Busto, Francisco Corzana,
Gonzalo Jiménez-Osés, Miguel París, Jesús M. Peregrina,*
David Sucunza and María M. Zurbano

Tetrahedron: Asymmetry 15 (2004) 131



Acetic acid 1'-[2''-hydroxy-2''-(methoxymethylcarbamoyl)propylcarbamoyl]-1'-(phenyl)methyl ester

Ee >93%

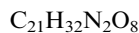
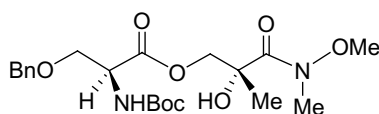
$[\alpha]_D^{25} +45.0$ (c 0.92, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: *R,R*

Alberto Avenoza,* Jesús H. Busto, Francisco Corzana,
Gonzalo Jiménez-Osés, Miguel París, Jesús M. Peregrina,*
David Sucunza and María M. Zurbano

Tetrahedron: Asymmetry 15 (2004) 131



3-Benzyloxy-2-tert-butoxycarbonylaminopropionic acid 2'-hydroxy-2'-(methoxymethylcarbamoyl)propyl ester

Ee >93%

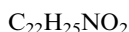
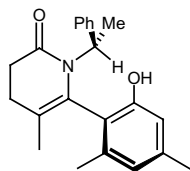
$[\alpha]_D^{25} +8.7$ (c 1.49, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: *2S,2'R*

Stéphane Le Gac, Nicolas Monnier-Benoit,
Lionel Doumampouom Metoul, Samuel Petit and Ivan Jabin*

Tetrahedron: Asymmetry 15 (2004) 139



(*aR*)-6-(2-Hydroxy-4,6-dimethyl-phenyl)-5-methyl-1-(1-(*S*)-phenyl-ethyl)-3,4-dihydro-1*H*-pyridin-2-one

Ee = 100%

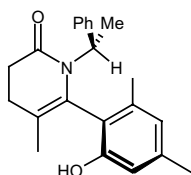
$[\alpha]_D^{20} -121.8$ (c 1.02, EtOH)

Source of chirality: asymmetric synthesis

Absolute configuration: *aR,1'S*

Stéphane Le Gac, Nicolas Monnier-Benoit,
Lionel Doumampoum Metoul, Samuel Petit and Ivan Jabin*

Tetrahedron: Asymmetry 15 (2004) 139



$C_{22}H_{25}NO_2$

(aS)-6-(2-Hydroxy-4,6-dimethyl-phenyl)-5-methyl-1-(1-(S)-phenyl-ethyl)-3,4-dihydro-1H-pyridin-2-one

Ee = 100%

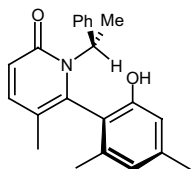
$[\alpha]_D^{20} -93.4$ (c 0.99, EtOH)

Source of chirality: asymmetric synthesis

Absolute configuration: aS,1'S

Stéphane Le Gac, Nicolas Monnier-Benoit,
Lionel Doumampoum Metoul, Samuel Petit and Ivan Jabin*

Tetrahedron: Asymmetry 15 (2004) 139



$C_{22}H_{23}NO_2$

(aR)-6-(2-Hydroxy-4,6-dimethyl-phenyl)-5-methyl-1-(1-(S)-phenyl-ethyl)-1H-pyridin-2-one

Ee = 100%

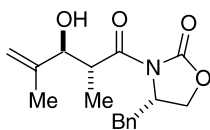
$[\alpha]_D^{20} -155.6$ (c 0.99, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: aS,1'S

Luiz C. Dias,* Leonardo J. Steil and Valéria de A. Vasconcelos

Tetrahedron: Asymmetry 15 (2004) 147



$C_{17}H_{21}NO_4$

(4S)-3-((2R,3S)-3-Hydroxy-2,4-dimethylpent-4-enoyl)-4-benzyl-1,3-oxazolidin-2-one

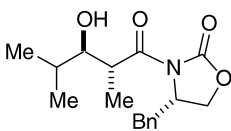
$[\alpha]_D^{22} +61$ (c 0.46, CH₂Cl₂)

Source of chirality: (S)-(+)-4-benzyl-3-propionyl-2-oxazolidinone

Absolute configuration: (4S)-3-(2R,3S)

Luiz C. Dias,* Leonardo J. Steil and Valéria de A. Vasconcelos

Tetrahedron: Asymmetry 15 (2004) 147



$C_{17}H_{23}NO_4$

(4S)-3-[(2R,3R)-2,4-Dimethyl-3-hydroxy-1-oxo-1-pentyl]-4-phenylmethyl-2-oxazolidinone

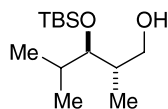
$[\alpha]_D^{22} +57.6$ (c 1.46, CH₂Cl₂)

Source of chirality: (S)-(+)-4-benzyl-3-propionyl-2-oxazolidinone

Absolute configuration: (4S)-3-(2R,3R)

Luiz C. Dias,* Leonardo J. Steil and Valéria de A. Vasconcelos

Tetrahedron: Asymmetry 15 (2004) 147



$C_{13}H_{30}O_2$

(2*S*,3*R*)-2,4-Dimethyl-3-[(*tert*-butyldimethylsilyl)oxy]pentan-1-ol

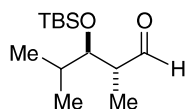
$[\alpha]_D^{22} -7.8$ (*c* 0.9, CH_2Cl_2)

Source of chirality: (*S*)-(+)-4-benzyl-3-propionyl-2-oxazolidinone

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

Luiz C. Dias,* Leonardo J. Steil and Valéria de A. Vasconcelos

Tetrahedron: Asymmetry 15 (2004) 147



$C_{13}H_{28}O_2$

(2*R*,3*R*)-2,4-Dimethyl-3-[(*tert*-butyldimethylsilyl)oxy]pentanal

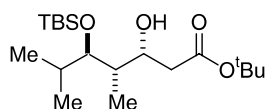
$[\alpha]_D^{22} -35.1$ (*c* 0.6, $CHCl_3$)

Source of chirality: (*S*)-(+)-4-benzyl-3-propionyl-2-oxazolidinone

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

Luiz C. Dias,* Leonardo J. Steil and Valéria de A. Vasconcelos

Tetrahedron: Asymmetry 15 (2004) 147



$C_{19}H_{40}O_4Si$

tert-Butyl (3*R*,4*S*,5*R*)-5-[(*tert*-butyldimethylsilyl)oxy]-3-hydroxy-4,6-dimethylheptanoate

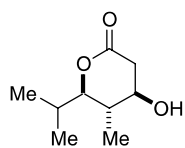
$[\alpha]_D^{22} -5.1$ (*c* 0.7, $CHCl_3$)

Source of chirality: (*S*)-(+)-4-benzyl-3-propionyl-2-oxazolidinone

Absolute configuration: (3*R*,4*S*,5*R*)

Luiz C. Dias,* Leonardo J. Steil and Valéria de A. Vasconcelos

Tetrahedron: Asymmetry 15 (2004) 147



$C_9H_{16}O_3$

(3*R*,4*S*,5*R*)-3-Hydroxy-4,6-dimethyl-heptanoic acid- δ -lactone

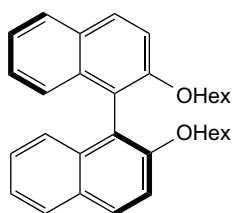
$[\alpha]_D^{22} +39.1$ (*c* 0.6, MeOH)

Source of chirality: (*S*)-(+)-4-benzyl-3-propionyl-2-oxazolidinone

Absolute configuration: (3*R*,4*S*,5*R*)

Walter E. Kowtoniuk, Michelle E. Rueffer and Darren K. MacFarland*

Tetrahedron: Asymmetry 15 (2004) 151



$C_{26}H_{25}O$

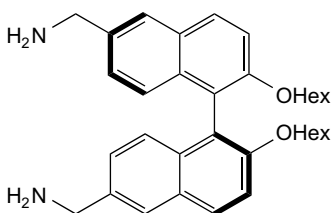
(*R*)-2,2'-Dihexyloxybi-1,1'-naphthalene

$[\alpha]_D +36$ (*c* 1.0, THF)

Absolute configuration: *R*

Walter E. Kowtoniuk, Michelle E. Rueffer and Darren K. MacFarland*

Tetrahedron: Asymmetry 15 (2004) 151



$C_{28}H_{31}N_2O$

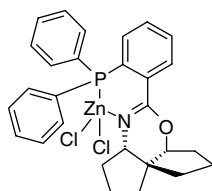
(*R*)-6,6'-Di(aminomethyl)-2,2'-dihexyloxybi-1,1'-naphthalene

$[\alpha]_D -8.6$ (*c* 0.6, THF)

Absolute configuration: *R*

Susan M. Lait, Masood Parvez and Brian A. Keay*

Tetrahedron: Asymmetry 15 (2004) 151



$C_{28}H_{30}Cl_2NOPZn$

(3*aS*,6*aS*,9*aS*)-5-(2-Diphenylphosphanylphenyl)-1,2,3,3*a*,6*a*,7,8,9-octahydro-4-oxa-6-azacyclopenta[*d*]indene $ZnCl_2$ complex

Ee >98%

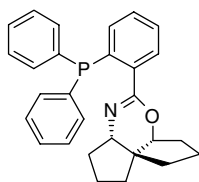
$[\alpha]_D^{21} +60.4$ (*c* 1.05, $CHCl_3$)

Source of chirality: derivative of (1*S*,5*S*,6*S*)-aminospiro[4.4]nonan-1-ol

Absolute configuration: 1*S*,5*S*,6*S*

Susan M. Lait, Masood Parvez and Brian A. Keay*

Tetrahedron: Asymmetry 15 (2004) 155



$C_{28}H_{30}NOP$

(3*aS*,6*aS*,9*aS*)-5-(2-Diphenylphosphanylphenyl)-1,2,3,3*a*,6*a*,7,8,9-octahydro-4-oxa-6-azacyclopenta[*d*]indene

Ee >98%

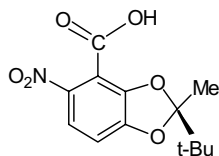
$[\alpha]_D^{21} +68.6$ (*c* 1.25, $CHCl_3$)

Source of chirality: derivative of (3*aS*,6*aS*,9*aS*)-5-(2-diphenylphosphanylphenyl)-1,2,3,3*a*,6*a*,7,8,9-octahydro-4-oxa-6-azacyclopenta[*d*]indene $ZnCl_2$ complex

Absolute configuration: 1*S*,5*S*,6*S*

Masaya Suzuki, Yoshihiro Nishida,* Yuya Ohguro, Yoshiko Miura,
Akiko Tsuchida and Kazukiyo Kobayashi*

Tetrahedron: Asymmetry 15 (2004) 159



$C_{13}H_{15}O_6N$

(*S*)-5-Nitro-2-*tert*-butyl-2-methyl-1,3-benzodioxole-4-carboxylic acid

Ee = 100%

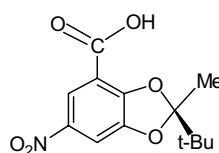
$[\alpha]_D^{22} +16.6$ (*c* 0.1, MeOH)

Source of chirality: chiral column HPLC
separation or fractional crystallization
of a precursor

Absolute configuration: *S*

Masaya Suzuki, Yoshihiro Nishida,* Yuya Ohguro, Yoshiko Miura,
Akiko Tsuchida and Kazukiyo Kobayashi*

Tetrahedron: Asymmetry 15 (2004) 159



$C_{13}H_{15}O_6N$

(*S*)-6-Nitro-2-*tert*-butyl-2-methyl-1,3-benzodioxole-4-carboxylic acid

Ee = 100%

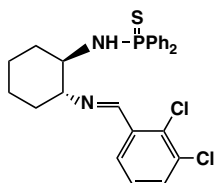
$[\alpha]_D^{22} +15.4$ (*c* 0.1, MeOH)

Source of chirality: chiral column HPLC
separation or fractional crystallization
of a precursor

Absolute configuration: *S*

Min Shi* and Wen Zhang

Tetrahedron: Asymmetry 15 (2004) 167



$C_{25}H_{25}Cl_2N_2PS$

(1*R*,2*R*)-(-)-*N*-(2,3-Dichloro-benzylidene)-*N'*-diphenylthio-phosphoryl-cyclohexane-1,2-diamine

Ee = 100%

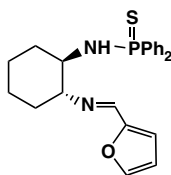
$[\alpha]_D^{20} = -25.4$ (*c* 1.225, $CHCl_3$)

Source of chirality: resolution

Absolute configuration: (*R*)

Min Shi* and Wen Zhang

Tetrahedron: Asymmetry 15 (2004) 167



$C_{23}H_{25}N_2OPS$

(1*R*,2*R*)-(-)-*N*-(Furan-2-ylmethylene)-*N'*-diphenylthio-phosphoryl-cyclohexane-1,2-diamine

Ee = 100%

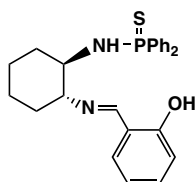
$[\alpha]_D^{20} = -9.6$ (*c* 0.3, $CHCl_3$)

Source of chirality: resolution

Absolute configuration: (*R*)

Min Shi* and Wen Zhang

Tetrahedron: Asymmetry 15 (2004) 167



C₂₅H₂₇N₂OPS

(1*R*,2*R*)-(-)-*N*-(2-Hydroxy-benzylidene)-*N'*-diphenylthio-phosphoryl-cyclohexane-1,2-diamine

Ee = 100%

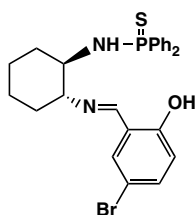
[α]_D²⁰ = -146.4 (*c* 0.7, CHCl₃)

Source of chirality: resolution

Absolute configuration: (*R*)

Min Shi* and Wen Zhang

Tetrahedron: Asymmetry 15 (2004) 167



C₂₅H₂₆BrN₂OPS

(1*R*,2*R*)-(-)-*N*-(5-Bromo-2-hydroxy-benzylidene)-*N'*-diphenylthio-phosphoryl-cyclohexane-1,2-diamine

Ee = 100%

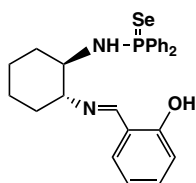
[α]_D²⁰ = -84.9 (*c* 0.34, CHCl₃)

Source of chirality: resolution

Absolute configuration: (*R*)

Min Shi* and Wen Zhang

Tetrahedron: Asymmetry 15 (2004) 167



C₂₅H₂₇N₂OPSe

(1*R*,2*R*)-(-)-*N*-(2-Hydroxy-benzylidene)-*N'*-diphenylseleno-phosphoryl-cyclohexane-1,2-diamine

Ee = 100%

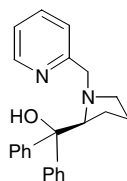
[α]_D²⁰ = -146 (*c* 0.24, CHCl₃)

Source of chirality: resolution

Absolute configuration: (*R*)

Yong-Xin Zhang, Da-Ming Du,* Xiao Chen, Shao-Feng Lü
and Wen-Ting Hua

Tetrahedron: Asymmetry 15 (2004) 177



C₂₃H₂₄N₂O

(*S*)-2-(Diphenylmethanol)-1-(2-pyridylmethyl)pyrrolidine

Ee = 99%

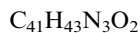
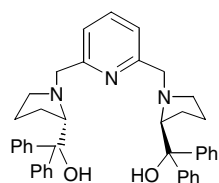
[α]_D²⁰ = +69.0 (*c* 0.98, CHCl₃)

Source of chirality: optically active
starting L-proline

Absolute configuration: (*S*)

Yong-Xin Zhang, Da-Ming Du,* Xiao Chen, Shao-Feng Lü
and Wen-Ting Hua

Tetrahedron: Asymmetry 15 (2004) 177



(*S,S*)-1,1'-(2,6-Pyridinyldimethyl)-bis[2-(diphenylmethanol)pyrrolidine]

Ee = 98%

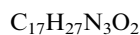
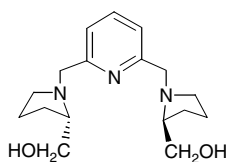
$[\alpha]_D^{20} = +45.0$ (*c* 0.1, CH₂Cl₂)

Source of chirality: optically active starting L-proline

Absolute configuration: (*S,S*)

Yong-Xin Zhang, Da-Ming Du,* Xiao Chen, Shao-Feng Lü
and Wen-Ting Hua

Tetrahedron: Asymmetry 15 (2004) 177



(*S,S*)-1,1'-(2,6-Pyridinyldimethyl)-bis[2-(hydroxymethyl)pyrrolidine]

Ee = 98%

$[\alpha]_D^{20} = -29.2$ (*c* 1.0, CH₂Cl₂)

Source of chirality: optically active starting L-proline

Absolute configuration: (*S,S*)