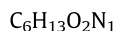
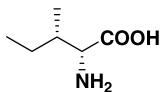


Stereochemistry abstracts

Tatsuo Yajima,* Takao Horikawa, Nobuhiro Takeda, Eri Takemura, Hiroaki Hattori,
Yuichi Shimazaki, Tadashi Shiraiwa

Tetrahedron: Asymmetry 19 (2008) 1285

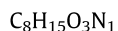
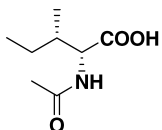


(2*R*,3*S*)-2-Amino-3-methylpentanoic acid

De = 98% [NMR]
 $[\alpha]_D^{25} = -38.3$ (c 2, 5 mol/dm³ HCl)
 Absolute configuration: (2*R*,3*S*)

Tatsuo Yajima,* Takao Horikawa, Nobuhiro Takeda, Eri Takemura, Hiroaki Hattori,
Yuichi Shimazaki, Tadashi Shiraiwa

Tetrahedron: Asymmetry 19 (2008) 1285

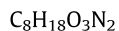
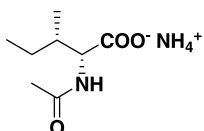


(2*R*,3*S*)-*N*-Acetyl-2-amino-3-methylpentanoic acid

De = 98% [NMR]
 $[\alpha]_D^{25} = -21.5$ (c 2, C₂H₅OH)
 Absolute configuration: (2*R*,3*S*)

Tatsuo Yajima,* Takao Horikawa, Nobuhiro Takeda, Eri Takemura, Hiroaki Hattori,
Yuichi Shimazaki, Tadashi Shiraiwa

Tetrahedron: Asymmetry 19 (2008) 1285

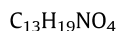
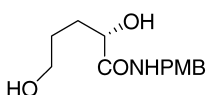


Ammonium (2*R*,3*S*)-*N*-acetyl-2-amino-3-methylpentanoate

De = 98% [NMR]
 $[\alpha]_D^{25} = -23.0$ (c 1, CH₃OH)
 Absolute configuration: (2*R*,3*S*)

Gang Liu, Jie Meng, Chen-Guo Feng, Pei-Qiang Huang*

Tetrahedron: Asymmetry 19 (2008) 1297

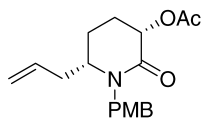


(*S*)-*N*-(4-Methoxybenzyl)-2,5-dihydroxypentanamide

$[\alpha]_D^{20} = -23.8$ (c 1.0, CH₃OH)
 Source of chirality: (*S*)-glutamic acid
 Absolute configuration: (*S*)

Gang Liu, Jie Meng, Chen-Guo Feng, Pei-Qiang Huang*

Tetrahedron: Asymmetry 19 (2008) 1297



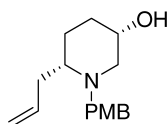
$C_{18}H_{23}NO_4$

(3*S*,6*S*)-1-(4-Methoxybenzyl)-6-allyl-2-oxopiperidin-3-yl acetate

$[\alpha]_D^{20} = +44.0$ (*c* 1.0, $CHCl_3$)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (3*S*,6*S*)

Gang Liu, Jie Meng, Chen-Guo Feng, Pei-Qiang Huang*

Tetrahedron: Asymmetry 19 (2008) 1297



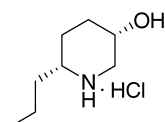
$C_{16}H_{23}NO_2$

(3*S*,6*S*)-1-(4-Methoxybenzyl)-6-allylpiperidin-3-ol

$[\alpha]_D^{20} = -73.9$ (*c* 1.1, $CHCl_3$)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (3*S*,6*S*)

Gang Liu, Jie Meng, Chen-Guo Feng, Pei-Qiang Huang*

Tetrahedron: Asymmetry 19 (2008) 1297



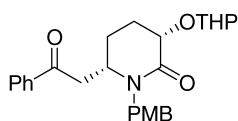
$C_8H_{17}NO \cdot HCl$

(-)-(2*R*,5*S*)-*epi*-Pseudoconhydrine hydrochloride salt

$[\alpha]_D^{20} = -10.2$ (*c* 1.0, EtOH)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (2*R*,5*S*)

Gang Liu, Jie Meng, Chen-Guo Feng, Pei-Qiang Huang*

Tetrahedron: Asymmetry 19 (2008) 1297



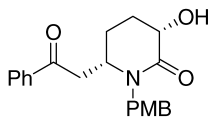
$C_{26}H_{31}NO_5$

(3*S*,6*S*)-1-(4-Methoxybenzyl)-6-(2-oxo-2-phenylethyl)-3-(tetrahydro-2*H*-pyran-2-yloxy)piperidin-2-one

$[\alpha]_D^{20} = -65.4$ (*c* 1.0, $CHCl_3$)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (3*S*,6*S*)

Gang Liu, Jie Meng, Chen-Guo Feng, Pei-Qiang Huang*

Tetrahedron: Asymmetry 19 (2008) 1297



$C_{21}H_{23}NO_4$

(3*S*,6*S*)-1-(4-Methoxybenzyl)-3-hydroxy-6-(2-oxo-2-phenylethyl)piperidin-2-one

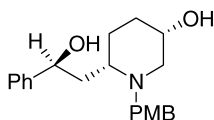
$[\alpha]_D^{20} = -10.6$ (c 1.1, $CHCl_3$)

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

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

Gang Liu, Jie Meng, Chen-Guo Feng, Pei-Qiang Huang*

Tetrahedron: Asymmetry 19 (2008) 1297



$C_{21}H_{27}NO_3$

(3*S*,6*S*)-1-(4-Methoxybenzyl)-6-((*S*)-2-hydroxy-2-phenylethyl)piperidin-3-ol

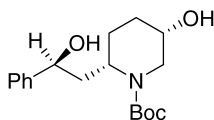
$[\alpha]_D^{20} = -59.3$ (c 1.0, $CHCl_3$)

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

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

Gang Liu, Jie Meng, Chen-Guo Feng, Pei-Qiang Huang*

Tetrahedron: Asymmetry 19 (2008) 1297



$C_{18}H_{27}NO_4$

(2*S*,5*S*)-*tert*-Butyl 5-hydroxy-2-((*S*)-2-hydroxy-2-phenylethyl)piperidine-1-carboxylate

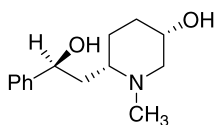
$[\alpha]_D^{20} = -62.4$ (c 0.8, $CHCl_3$)

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

Absolute configuration: (2*S*,5*S*,2'*S*)

Gang Liu, Jie Meng, Chen-Guo Feng, Pei-Qiang Huang*

Tetrahedron: Asymmetry 19 (2008) 1297



$C_{14}H_{21}NO_2$

(3*S*,6*S*)-6-((*S*)-2-Hydroxy-2-phenylethyl)-1-methylpiperidin-3-ol

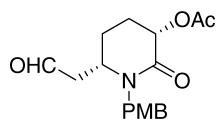
$[\alpha]_D^{20} = -53.4$ (c 0.5, MeOH)

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

Absolute configuration: (3*S*,6*S*,2'*S*)

Gang Liu, Jie Meng, Chen-Guo Feng, Pei-Qiang Huang*

Tetrahedron: Asymmetry 19 (2008) 1297



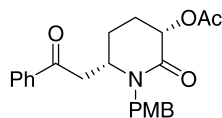
$C_{17}H_{21}NO_5$

(3*S*,6*S*)-1-(4-Methoxybenzyl)-2-oxo-6-(2-oxoethyl)piperidin-3-yl acetate

$[\alpha]_D^{20} = +51.0$ (c 1.0, $CHCl_3$)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (3*S*,6*S*)

Gang Liu, Jie Meng, Chen-Guo Feng, Pei-Qiang Huang*

Tetrahedron: Asymmetry 19 (2008) 1297



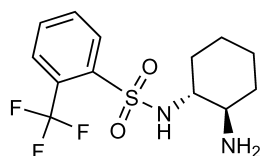
$C_{23}H_{25}NO_5$

(3*S*,6*S*)-1-(4-Methoxybenzyl)-6-(2-oxo-2-phenylethyl)-2-oxopiperidin-3-yl acetate

$[\alpha]_D^{20} = +6.9$ (c 1.4, $CHCl_3$)
Source of chirality: (*S*)-glutamic acid
Absolute configuration: (3*S*,6*S*)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



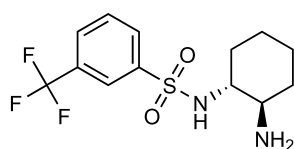
$C_{13}H_{17}F_3N_2O_2S$

N-((1*R*,2*R*)-(2-Aminocyclohexyl)-2-(trifluoromethyl)benzenesulfonamide

$E_e = 100\%$
 $[\alpha]_D^{25} = -25$ (c 0.13, CH_2Cl_2)
Source of chirality: chiral starting material
Absolute configuration: (*R,R*)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



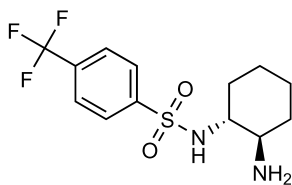
$C_{13}H_{17}F_3N_2O_2S$

N-((1*R*,2*R*)-(2-Aminocyclohexyl)-3-trifluoromethyl)benzenesulfonamide

$E_e = 100\%$
 $[\alpha]_D^{25} = -34$ (c 0.52, CH_2Cl_2)
Source of chirality: chiral starting material
Absolute configuration: (*R,R*)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



$C_{13}H_{17}F_3N_2O_2S$

N-(1R,2R)-(2-Aminocyclohexyl)-4-(trifluoromethyl)benzenesulfonamide

Ee = 100%

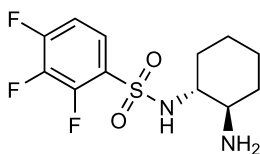
$[\alpha]_D^{25} = -57$ (c 0.26, CH_2Cl_2)

Source of chirality: chiral starting material

Absolute configuration: (R,R)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



$C_{12}H_{15}F_3N_2O_2S$

N-(1R,2R)-(2-Aminocyclohexyl)-2,3,4-(trifluoro)benzenesulfonamide

Ee = 100%

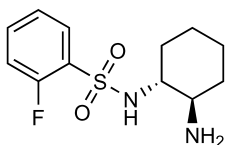
$[\alpha]_D^{25} = -46$ (c 0.56, CH_2Cl_2)

Source of chirality: chiral starting material

Absolute configuration: (R,R)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



$C_{12}H_{17}FN_2O_2S$

N-(1R,2R)-(2-Aminocyclohexyl)-2-fluorobenzenesulfonamide

Ee = 100%

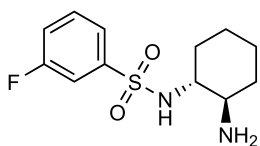
$[\alpha]_D^{25} = -30$ (c 0.66, CH_2Cl_2)

Source of chirality: chiral starting material

Absolute configuration: (R,R)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



$C_{12}H_{17}FN_2O_2S$

N-(1R,2R)-(2-Aminocyclohexyl)-3-fluorobenzenesulfonamide

Ee = 100%

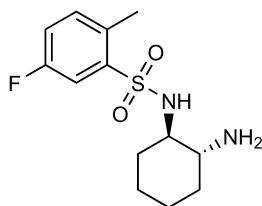
$[\alpha]_D^{25} = -64$ (c 0.52, CH_2Cl_2)

Source of chirality: chiral starting material

Absolute configuration: (R,R)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



$C_{13}H_{19}FN_2O_2S$

N-(1*R*,2*R*)-(2-Aminocyclohexyl)-5-fluoro-2-methyl-benzenesulfonamide

Ee = 100%

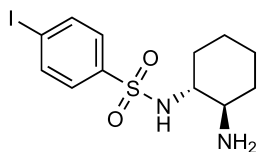
$[\alpha]_D^{25} = -63$ (c 0.41 CH_2Cl_2)

Source of chirality: chiral starting material

Absolute configuration: (*R,R*)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



$C_{12}H_{17}IN_2O_2S$

N-(1*R*,2*R*)-(2-Aminocyclohexyl)-4-iodobenzenesulfonamide

Ee = 100%

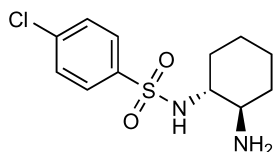
$[\alpha]_D^{25} = -39$ (c 0.42 CH_2Cl_2)

Source of chirality: chiral starting material

Absolute configuration: (*R,R*)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



$C_{12}H_{17}ClN_2O_2S$

N-(1*R*,2*R*)-(2-Aminocyclohexyl)-4-chloro-benzenesulfonamide

Ee = 100%

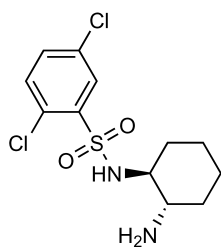
$[\alpha]_D^{25} = -22$ (c 0.31, CH_2Cl_2)

Source of chirality: chiral starting material

Absolute configuration: (*R,R*)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



$C_{12}H_{16}Cl_2N_2O_2S$

N-(1*R*,2*R*)-(2-Aminocyclohexyl)-2,5-dichlorobenzenesulfonamide

Ee = 100%

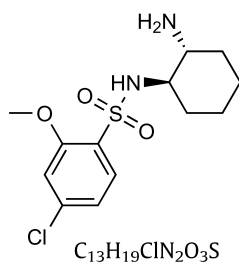
$[\alpha]_D^{25} = -29$ (c 0.11, CH_2Cl_2)

Source of chirality: chiral starting material

Absolute configuration: (*R,R*)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



N-(1*R*,2*R*)-(2-Aminocyclohexyl)-4-chloro-2-methoxybenzenesulfonamide

Ee = 100%

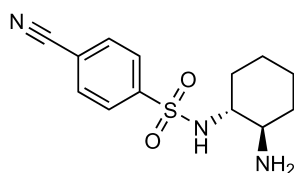
$[\alpha]_D^{25} = -33$ (c 0.57, CH_2Cl_2)

Source of chirality: chiral starting material

Absolute configuration: (*R,R*)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



N-(1*R*,2*R*)-(2-Aminocyclohexyl)-4-cyano-benzenesulfonamide

Ee = 100%

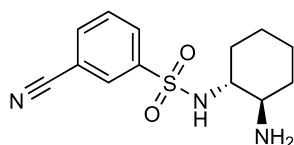
$[\alpha]_D^{25} = -47$ (c 0.45, CH_2Cl_2)

Source of chirality: chiral starting material

Absolute configuration: (*R,R*)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



N-(1*R*,2*R*)-(2-Aminocyclohexyl)-3-cyano-benzenesulfonamide

Ee = 100%

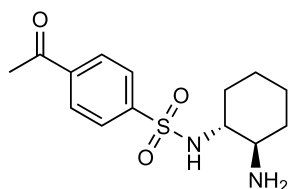
$[\alpha]_D^{25} = -63$ (c 0.42 CH_2Cl_2)

Source of chirality: chiral starting material

Absolute configuration: (*R,R*)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



4-Acetyl-*N*-(1*R*,2*R*)-(2-aminocyclohexyl)benzenesulfonamide

Ee = 100%

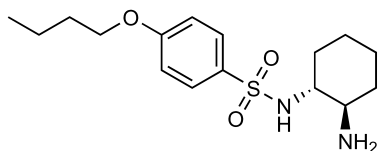
$[\alpha]_D^{25} = -28$ (c 0.22, CH_2Cl_2)

Source of chirality: chiral starting material

Absolute configuration: (*R,R*)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



$C_{16}H_{26}N_2O_3S$

N-(1*R*,2*R*)-2-Aminocyclohexyl-4-butoxy-benzenesulfonamide

Ee = 100%

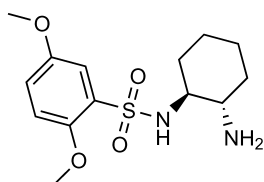
$[\alpha]_D^{25} = -33$ (c 0.44, CH₂Cl₂)

Source of chirality: chiral starting material

Absolute configuration: (*R,R*)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



$C_{14}H_{22}N_2O_4S$

N-(1*R*,2*R*)-(2-Aminocyclohexyl)-2,5-dimethoxy-benzenesulfonamide

Ee = 100%

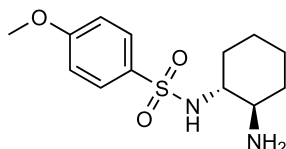
$[\alpha]_D^{25} = -15$ (c 0.81, CH₂Cl₂)

Source of chirality: chiral starting material

Absolute configuration: (*R,R*)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



$C_{13}H_{20}N_2O_3S$

N-(1*R*,2*R*)-(2-Aminocyclohexyl)-4-methoxy-benzenesulfonamide

Ee = 100%

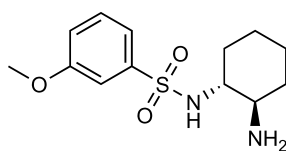
$[\alpha]_D^{25} = -57$ (c 0.26 CH₂Cl₂)

Source of chirality: chiral starting material

Absolute configuration: (*R,R*)

Norma A. Cortez, Gerardo Aguirre, Miguel Parra-Hake, Ratnasamy Somanathan*

Tetrahedron: Asymmetry 19 (2008) 1304



$C_{13}H_{20}N_2O_3S$

N-(1*R*,2*R*)-(2-Aminocyclohexyl)-3-methoxy-benzenesulfonamide

Ee = 100%

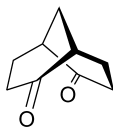
$[\alpha]_D^{25} = -85$ (c 1.0 CH₂Cl₂)

Source of chirality: chiral starting material

Absolute configuration: (*R,R*)

Monika Mayr, Carole J. R. Bataille, Silvia Gosiewska, Jevgenij A. Raskatov,
John M. Brown*

Tetrahedron: Asymmetry 19 (2008) 1328



(2*S*,6*S*)-Bicyclo[3.3.1]nonane-2,6-dione

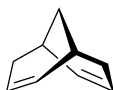
$$[\alpha]_D^{21} = +176.6 \text{ (c 0.5, CHCl}_3\text{)}$$

Source of chirality: yeast kinetic resolution

Absolute configuration: (2*S*,6*S*)

Monika Mayr, Carole J. R. Bataille, Silvia Gosiewska, Jevgenij A. Raskatov,
John M. Brown*

Tetrahedron: Asymmetry 19 (2008) 1328



(2*S*,6*S*)-Bicyclo[3.3.1]nona-2,6-diene

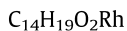
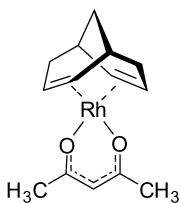
$$[\alpha]_D^{21} = -121 \text{ (c 0.89, CHCl}_3\text{)}$$

Source of chirality: enantiomerically pure ketone precursor

Absolute configuration: (2*S*,6*S*)

Monika Mayr, Carole J. R. Bataille, Silvia Gosiewska, Jevgenij A. Raskatov,
John M. Brown*

Tetrahedron: Asymmetry 19 (2008) 1328



((2*S*,6*S*)-Bicyclo[3.3.1]nona-2,6-diene)2',4'-pentanedionato rhodium

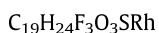
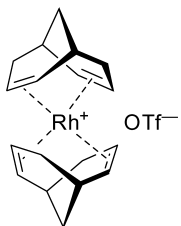
$$[\alpha]_D^{21} = -73 \text{ (c 0.51, CHCl}_3\text{)}$$

Source of chirality: enantiomerically pure diene precursor

Absolute configuration: (2*S*,6*S*) (diene chirality)

Monika Mayr, Carole J. R. Bataille, Silvia Gosiewska, Jevgenij A. Raskatov,
John M. Brown*

Tetrahedron: Asymmetry 19 (2008) 1328



(Bis-(*S,S*)-bicyclo[3.3.1]nona-2,6-diene)rhodium trifluoromethanesulfonate

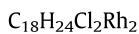
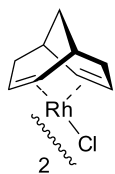
$$[\alpha]_D^{21} = -217 \text{ (c 0.29, CHCl}_3\text{)}$$

Source of chirality: enantiomerically pure diene precursor

Absolute configuration: (2*S*,6*S*) (diene chirality)

Monika Mayr, Carole J. R. Bataille, Silvia Gosiewska, Jevgenij A. Raskatov,
John M. Brown*

Tetrahedron: Asymmetry 19 (2008) 1328



(Bis-(*S,S*)-bicyclo[3.3.1]nona-2,6-diene)rhodium trifluoromethanesulfonate

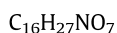
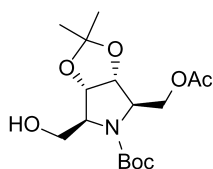
$$[\alpha]_D^{21} = -260 \text{ (c 0.23, CHCl}_3\text{)}$$

Source of chirality: enantiomerically pure diene precursor

Absolute configuration: (*2S,6S*) (diene chirality)

Robert Chênevert,* Frédéric Jacques, Pascall Giguère, Mohammed Dasser

Tetrahedron: Asymmetry 19 (2008) 1333



tert-Butyl (*3aR,4R,6S,6aS*)-4-(acetoxymethyl)-6-(hydroxymethyl)-2,2-dimethylhydro-3aH-[1,3]dioxolo[4,5-*c*]pyrrole-5(*4H*)-carboxylate

Ee = 97% (Chiral HPLC)

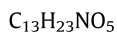
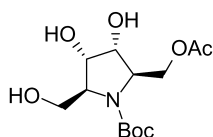
$$[\alpha]_D^{20} = -38.2 \text{ (c 1.20, CHCl}_3\text{)}$$

Source of chirality: enzymatic desymmetrization

Absolute configuration: (*3aR,4R,6S,6aS*)

Robert Chênevert,* Frédéric Jacques, Pascall Giguère, Mohammed Dasser

Tetrahedron: Asymmetry 19 (2008) 1333



tert-Butyl (*2R,3R,4S,5S*)-2-(acetoxymethyl)-3,4-dihydroxy-5-(hydroxymethyl)pyrrolidine-1-carboxylate

Ee = 94%

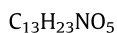
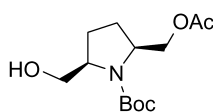
$$[\alpha]_D^{20} = -8.7 \text{ (c 1.50, CHCl}_3\text{)}$$

Source of chirality: enzymatic desymmetrization

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

Robert Chênevert,* Frédéric Jacques, Pascall Giguère, Mohammed Dasser

Tetrahedron: Asymmetry 19 (2008) 1333



tert-Butyl (*2S,5R*)-2-(acetoxymethyl)-5-(hydroxymethyl)pyrrolidine-1-carboxylate

Ee = 97% (Chiral GC)

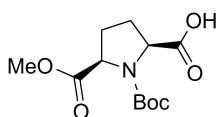
$$[\alpha]_D^{20} = -10.9 \text{ (c 1.60, CHCl}_3\text{)}$$

Source of chirality: enzymatic desymmetrization

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

Robert Chênevert,* Frédéric Jacques, Pascal Giguère, Mohammed Dasser

Tetrahedron: Asymmetry 19 (2008) 1333



$C_{12}H_{19}NO_6$

(2*S*,5*R*)-1-(*tert*-Butoxycarbonyl)-5-(methoxycarbonyl)pyrrolidine-2-carboxylic acid

Ee \geq 98% (Chiral HPLC)

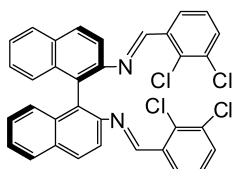
$[\alpha]_D^{20} = +12.9$ (c 1.40, MeOH)

Source of chirality: enzymatic desymmetrization

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

Zhi-Liang Yuan, Zhi-Yu Lei, Min Shi*

Tetrahedron: Asymmetry 19 (2008) 1339



$C_{34}H_{20}Cl_4N_2$

(*R*)-(+)-*N,N'*-Bis(2,3-dichlorobenzylidene)-1,1'-binaphthyl-2,2'-diamine

Ee = 100%

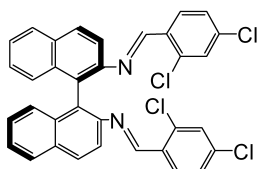
$[\alpha]_D^{20} = +217.5$ (c 0.50, CH₂Cl₂)

Source of chirality: resolution

Absolute configuration: (*R*)

Zhi-Liang Yuan, Zhi-Yu Lei, Min Shi*

Tetrahedron: Asymmetry 19 (2008) 1339



$C_{34}H_{20}Cl_4N_2$

(*R*)-(+)-*N,N'*-Bis(2,4-dichlorobenzylidene)-1,1'-binaphthyl-2,2'-diamine

Ee = 100%

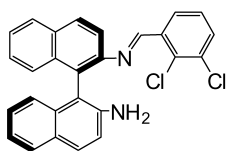
$[\alpha]_D^{20} = +140.5$ (c 0.50, CH₂Cl₂)

Source of chirality: optical resolution

Absolute configuration: (*R*)

Zhi-Liang Yuan, Zhi-Yu Lei, Min Shi*

Tetrahedron: Asymmetry 19 (2008) 1339



$C_{27}H_{18}Cl_2N_2$

(*R*)-(+)-*N*-(2,3-Dichlorobenzylidene)-1,1'-binaphthyl-2,2'-diamine

Ee = 100%

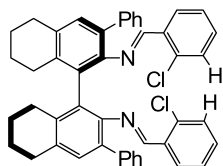
$[\alpha]_D^{20} = +117.7$ (c 0.50, CH₂Cl₂)

Source of chirality: resolution

Absolute configuration: (*R*)

Zhi-Liang Yuan, Zhi-Yu Lei, Min Shi*

Tetrahedron: Asymmetry 19 (2008) 1339



$C_{46}H_{38}Cl_2N_2$

(R)-(+)-N,N'-Bis(2-chlorobenzylidene)-3,3'-diphenyl-5,5',6,6',7,7',8,8'-octahydro-1,1'-binaphthyl-2,2'-diamine

Ee = 100%

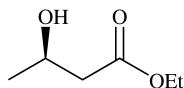
$[\alpha]_D^{20} = +3.8$ (c 0.35, CH_2Cl_2)

Source of chirality: resolution

Absolute configuration: (R)

Chunmao He, Dongliang Chang*, Jie Zhang

Tetrahedron: Asymmetry 19 (2008) 1347



$C_6H_{12}O_3$

Ethyl (R)-3-hydroxybutyrate

Ee = 94.5% by chiral GC with a CP-Chirasil-Dex-CB column

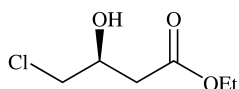
$[\alpha]_D^{25} = -43.1$ (c 1.0, $CHCl_3$)

Source of chirality: *Bacillus pumilus* Phe-C3 alcohol dehydrogenase

Absolute configuration: (3R)

Chunmao He, Dongliang Chang*, Jie Zhang

Tetrahedron: Asymmetry 19 (2008) 1347



$C_6H_{11}O_3Cl$

Ethyl (S)-4-chloro-3-hydroxybutyrate

Ee = 95.9% by chiral GC with a CP-Chirasil-Dex-CB column

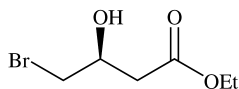
$[\alpha]_D^{25} = -21.7$ (c 7.0, $CHCl_3$)

Source of chirality: *Bacillus pumilus* Phe-C3 alcohol dehydrogenase

Absolute configuration: (3S)

Chunmao He, Dongliang Chang*, Jie Zhang

Tetrahedron: Asymmetry 19 (2008) 1347



$C_6H_{11}O_3Br$

Ethyl (S)-4-bromo-3-hydroxybutyrate

Ee = 91.4% by chiral GC with a CP-Chirasil-Dex-CB column

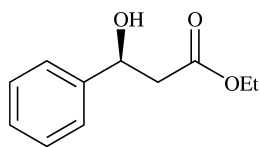
$[\alpha]_D^{25} = -10.9$ (c 1.0, $CHCl_3$)

Source of chirality: *Bacillus pumilus* Phe-C3 alcohol dehydrogenase

Absolute configuration: (3S)

Chunmao He, Dongliang Chang*, Jie Zhang

Tetrahedron: Asymmetry 19 (2008) 1347



C₁₁H₁₄O₃

Ethyl (S)-3-hydroxy-3-phenylpropionate

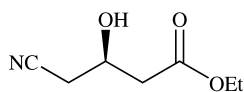
Ee = 95.7% by chiral HPLC with a Chiralcel OB-H column
[α]_D²⁵ = -33.1 (c 1.0, CHCl₃)

Source of chirality: *Bacillus pumilus* Phe-C3 alcohol dehydrogenase

Absolute configuration: (3S)

Chunmao He, Dongliang Chang*, Jie Zhang

Tetrahedron: Asymmetry 19 (2008) 1347



C₇H₁₁O₃N

Ethyl (R)-4-cyano-3-hydroxybutyrate

Ee = 97.0% by chiral GC with a CP-Chirasil-Dex-CB column

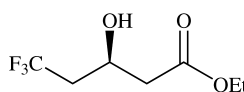
[α]_D²⁵ = -32.1 (c 1.0, CHCl₃)

Source of chirality: *Bacillus pumilus* Phe-C3 alcohol dehydrogenase

Absolute configuration: (3R)

Chunmao He, Dongliang Chang*, Jie Zhang

Tetrahedron: Asymmetry 19 (2008) 1347



C₆H₉O₃F₃

Ethyl (R)-4,4,4-trifluoro-3-hydroxybutyrate

Ee = 90.2% by chiral GC with a CP-Chirasil-Dex-CB column

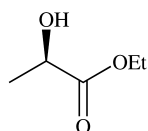
[α]_D²⁵ = +20.1 (c 1.0, CHCl₃)

Source of chirality: *Bacillus pumilus* Phe-C3 alcohol dehydrogenase

Absolute configuration: (3R)

Chunmao He, Dongliang Chang*, Jie Zhang

Tetrahedron: Asymmetry 19 (2008) 1347



C₅H₁₀O₃

Ethyl (R)-2-hydroxy-propionate

Ee = 94.1% by chiral GC with a CP-Chirasil-Dex-CB column

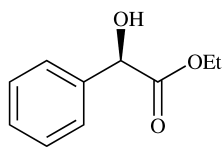
[α]_D²⁵ = +14.3 (c 1.0, CHCl₃)

Source of chirality: *Bacillus pumilus* Phe-C3 alcohol dehydrogenase

Absolute configuration: (2R)

Chunmao He, Dongliang Chang*, Jie Zhang

Tetrahedron: Asymmetry 19 (2008) 1347



C₁₀H₁₂O₃

Ethyl (*R*)- α -hydroxybenzeneacetate

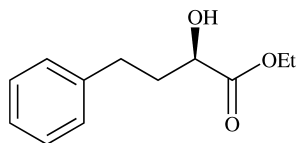
Ee = 96.6% by chiral HPLC with a Chiralcel OB-H column
[α]_D²⁵ = -99.3 (c 1.0, CHCl₃)

Source of chirality: *Bacillus pumilus* Phe-C3 alcohol dehydrogenase

Absolute configuration: (*2R*)

Chunmao He, Dongliang Chang*, Jie Zhang

Tetrahedron: Asymmetry 19 (2008) 1347



C₁₂H₁₆O₃

Ethyl (*R*)-2-hydroxy-4-phenylbutyrate

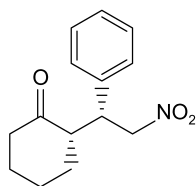
Ee = 97.1% by chiral HPLC with a Chiralcel OB-H column
[α]_D²⁵ = -19.5 (c 1.0, CHCl₃)

Source of chirality: *Bacillus pumilus* Phe-C3 alcohol dehydrogenase

Absolute configuration: (*2R*)

Ya-Bin Zhao, Lin-Wei Zhang, Lu-Yong Wu, Xing Zhong, Rong Li, Jian-Tai Ma*

Tetrahedron: Asymmetry 19 (2008) 1352



C₁₄H₁₇NO₃

(*S*)-2-((*R*)-2-nitro-1-phenylethyl)cyclohexanone

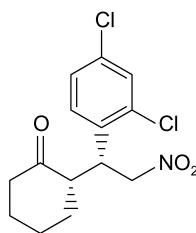
Ee = 91%

[α]_D²⁰ = -26.1 (c 1.0, CHCl₃)

Absolute configuration: (*S,R*)

Ya-Bin Zhao, Lin-Wei Zhang, Lu-Yong Wu, Xing Zhong, Rong Li, Jian-Tai Ma*

Tetrahedron: Asymmetry 19 (2008) 1352



C₁₄H₁₅Cl₂NO₃

(*S*)-2-((*R*)-1-(2,4-dichlorophenyl)-2-nitroethyl)cyclohexanone

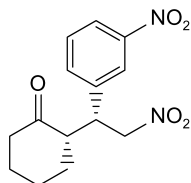
Ee = 88%

[α]_D²⁰ = -43.9 (c 1.0, CHCl₃)

Absolute configuration: (*S,R*)

Ya-Bin Zhao, Lin-Wei Zhang, Lu-Yong Wu, Xing Zhong, Rong Li, Jian-Tai Ma*

Tetrahedron: Asymmetry 19 (2008) 1352



$C_{14}H_{16}N_2O_5$

(S)-2-((R)-2-Nitro-1-(3-nitrophenyl)ethyl)cyclohexanone

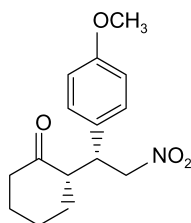
Ee = 87%

$[\alpha]_D^{20} = -23.7$ (c 1.0, $CHCl_3$)

Absolute configuration: (S,R)

Ya-Bin Zhao, Lin-Wei Zhang, Lu-Yong Wu, Xing Zhong, Rong Li, Jian-Tai Ma*

Tetrahedron: Asymmetry 19 (2008) 1352



$C_{15}H_{19}NO_4$

(S)-2-((R)-1-(4-Methoxyphenyl)-2-nitroethyl)cyclohexanone

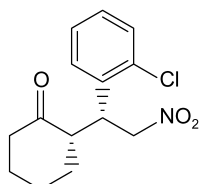
Ee = 84%

$[\alpha]_D^{20} = -25.3$ (c 1.0, $CHCl_3$)

Absolute configuration: (S,R)

Ya-Bin Zhao, Lin-Wei Zhang, Lu-Yong Wu, Xing Zhong, Rong Li, Jian-Tai Ma*

Tetrahedron: Asymmetry 19 (2008) 1352



$C_{14}H_{16}ClNO_3$

(S)-2-((R)-1-(2-Chlorophenyl)-2-nitroethyl)cyclohexanone

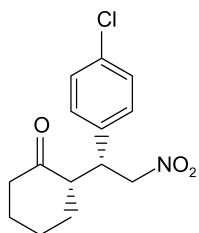
Ee = 89%

$[\alpha]_D^{20} = -23.1$ (c 1.0, $CHCl_3$)

Absolute configuration: (S,R)

Ya-Bin Zhao, Lin-Wei Zhang, Lu-Yong Wu, Xing Zhong, Rong Li, Jian-Tai Ma*

Tetrahedron: Asymmetry 19 (2008) 1352



$C_{14}H_{16}ClNO_3$

(S)-2-((R)-1-(4-Chlorophenyl)-2-nitroethyl)cyclohexanone

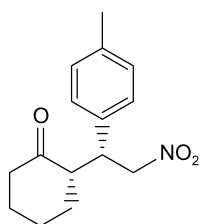
Ee = 93%

$[\alpha]_D^{20} = -33.7$ (c 1.0, $CHCl_3$)

Absolute configuration: (S,R)

Ya-Bin Zhao, Lin-Wei Zhang, Lu-Yong Wu, Xing Zhong, Rong Li, Jian-Tai Ma*

Tetrahedron: Asymmetry 19 (2008) 1352



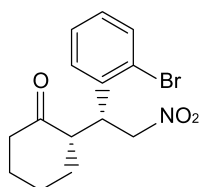
$C_{15}H_{19}NO_3$

(S)-2-((R)-1-(4-Methylphenyl)-2-nitroethyl)cyclohexanone

Ee = 85%
 $[\alpha]_D^{20} = -21.2$ (c 1.0, $CHCl_3$)
Absolute configuration: (S,R)

Ya-Bin Zhao, Lin-Wei Zhang, Lu-Yong Wu, Xing Zhong, Rong Li, Jian-Tai Ma*

Tetrahedron: Asymmetry 19 (2008) 1352



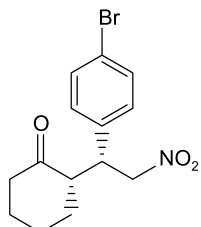
$C_{14}H_{16}BrNO_3$

(S)-2-((R)-1-(2-Bromophenyl)-2-nitroethyl)cyclohexanone

Ee = 87%
 $[\alpha]_D^{20} = -47.9$ (c 1.60, $CHCl_3$)
Absolute configuration: (S,R)

Ya-Bin Zhao, Lin-Wei Zhang, Lu-Yong Wu, Xing Zhong, Rong Li, Jian-Tai Ma*

Tetrahedron: Asymmetry 19 (2008) 1352



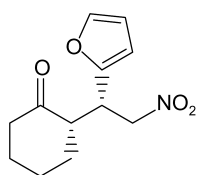
$C_{14}H_{16}BrNO_3$

(S)-2-((R)-1-(4-Bromophenyl)-2-nitroethyl)cyclohexanone

Ee = 89%
 $[\alpha]_D^{20} = -25.8$ (c 1.0, $CHCl_3$)
Absolute configuration: (S,R)

Ya-Bin Zhao, Lin-Wei Zhang, Lu-Yong Wu, Xing Zhong, Rong Li, Jian-Tai Ma*

Tetrahedron: Asymmetry 19 (2008) 1352



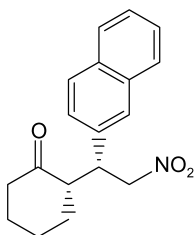
$C_{12}H_{15}NO_4$

(S)-2-((S)-1-(Furan-2-yl)-2-nitroethyl)cyclohexanone

Ee = 88%
 $[\alpha]_D^{20} = -13.3$ (c 1.0, $CHCl_3$)
Absolute configuration: (S,S)

Ya-Bin Zhao, Lin-Wei Zhang, Lu-Yong Wu, Xing Zhong, Rong Li, Jian-Tai Ma*

Tetrahedron: Asymmetry 19 (2008) 1352



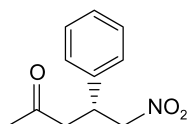
$C_{18}H_{19}NO_3$

(S)-2-((R)-1-(Naphthalen-2-yl)-2-nitroethyl)cyclohexanone

Ee = 77%
 $[\alpha]_D^{20} = -28.5$ (c 1.0, $CHCl_3$)
Absolute configuration: (S,R)

Ya-Bin Zhao, Lin-Wei Zhang, Lu-Yong Wu, Xing Zhong, Rong Li, Jian-Tai Ma*

Tetrahedron: Asymmetry 19 (2008) 1352



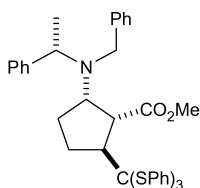
$C_{11}H_{13}NO_3$

(R)-5-Nitro-4-phenylpentan-2-one

Ee = 40%
 $[\alpha]_D^{20} = -7.2$ (c 1.0, $CHCl_3$)
Absolute configuration: (R)

Elin Abraham, Stephen G. Davies*, Alexander J. Docherty, Kenneth B. Ling,
Paul M. Roberts, Angela J. Russell, James E. Thomson, Steven M. Toms

Tetrahedron: Asymmetry 19 (2008) 1356



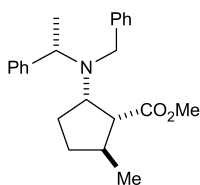
$C_{41}H_{41}NO_2S_3$

Methyl (1R,2S,5S,αS)-2-[N-benzyl-N-(α-methylbenzyl)amino]-5-tris(phenylthio)methyl-cyclopentane-carboxylate

$[\alpha]_D^{23} = -81.9$ (c 1.0, $CHCl_3$)
source of chirality: asymmetric synthesis
absolute configuration: (1R,2S,5S,αS)

Elin Abraham, Stephen G. Davies*, Alexander J. Docherty, Kenneth B. Ling,
Paul M. Roberts, Angela J. Russell, James E. Thomson, Steven M. Toms

Tetrahedron: Asymmetry 19 (2008) 1356



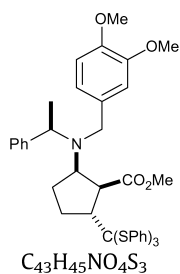
$C_{23}H_{29}NO_2$

Methyl (1R,2S,5S,αS)-2-[N-benzyl-N-(α-methylbenzyl)amino]-5-methyl-cyclopentane-carboxylate

$[\alpha]_D^{20} = -50.4$ (c 1.1, $CHCl_3$)
source of chirality: asymmetric synthesis
absolute configuration: (1R,2S,5S,αS)

Elin Abraham, Stephen G. Davies*, Alexander J. Docherty, Kenneth B. Ling,
Paul M. Roberts, Angela J. Russell, James E. Thomson, Steven M. Toms

Tetrahedron: Asymmetry 19 (2008) 1356

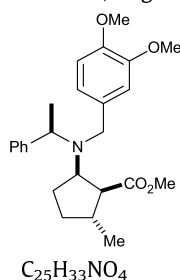


$[\alpha]_D^{23} = +72.0$ (c 1.0, $CHCl_3$)
source of chirality: asymmetric synthesis
absolute configuration: (1S,2R,5R,αR)

Methyl (1S,2R,5R,αR)-2-[N-(3,4-dimethoxybenzyl)-N-(α-methylbenzyl)amino]-5-tris(phenylthio)methyl-cyclopentane-carboxylate

Elin Abraham, Stephen G. Davies*, Alexander J. Docherty, Kenneth B. Ling,
Paul M. Roberts, Angela J. Russell, James E. Thomson, Steven M. Toms

Tetrahedron: Asymmetry 19 (2008) 1356

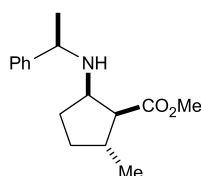


$[\alpha]_D^{23} = +27.0$ (c 0.9, $CHCl_3$)
source of chirality: asymmetric synthesis
absolute configuration: (1S,2R,5R,αR)

Methyl (1S,2R,5R,αR)-2-[N-(3,4-dimethoxybenzyl)-N-(α-methylbenzyl)amino]-5-methyl-cyclopentane-carboxylate

Elin Abraham, Stephen G. Davies*, Alexander J. Docherty, Kenneth B. Ling,
Paul M. Roberts, Angela J. Russell, James E. Thomson, Steven M. Toms

Tetrahedron: Asymmetry 19 (2008) 1356

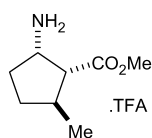


$[\alpha]_D^{20} = +126$ (c 1.0, $CHCl_3$)
source of chirality: asymmetric synthesis
absolute configuration: (1S,2R,5R,αR)

Methyl (1S,2R,5R,αR)-2-[N-(α-methylbenzyl)amino]-5-methyl-cyclopentane-carboxylate

Elin Abraham, Stephen G. Davies*, Alexander J. Docherty, Kenneth B. Ling,
Paul M. Roberts, Angela J. Russell, James E. Thomson, Steven M. Toms

Tetrahedron: Asymmetry 19 (2008) 1356

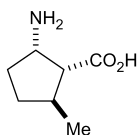


$[\alpha]_D^{20} = +29.8$ (c 1.0, $CHCl_3$)
source of chirality: asymmetric synthesis
absolute configuration: (1R,2S,5S)

Methyl (1R,2S,5S)-2-ammonio-5-methyl-cyclopentane-carboxylate trifluoroacetate

Elin Abraham, Stephen G. Davies*, Alexander J. Docherty, Kenneth B. Ling,
Paul M. Roberts, Angela J. Russell, James E. Thomson, Steven M. Toms

Tetrahedron: Asymmetry 19 (2008) 1356



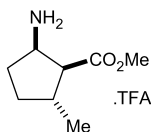
C₇H₁₃NO₂

(1R,2S,5S)-2-Amino-5-methyl-cyclopentane-carboxylic acid

$[\alpha]_D^{17} = +19.0$ (c 1.0, H₂O)
source of chirality: asymmetric synthesis
absolute configuration: (1R,2S,5S)

Elin Abraham, Stephen G. Davies*, Alexander J. Docherty, Kenneth B. Ling,
Paul M. Roberts, Angela J. Russell, James E. Thomson, Steven M. Toms

Tetrahedron: Asymmetry 19 (2008) 1356



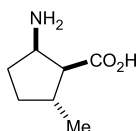
C₁₀H₁₅F₃NO₃

Methyl (1S,2R,5R)-2-ammonio-5-methyl-cyclopentane-carboxylate trifluoroacetate

$[\alpha]_D^{17} = -30.0$ (c 1.0, CHCl₃)
source of chirality: asymmetric synthesis
absolute configuration: (1S,2R,5R)

Elin Abraham, Stephen G. Davies*, Alexander J. Docherty, Kenneth B. Ling,
Paul M. Roberts, Angela J. Russell, James E. Thomson, Steven M. Toms

Tetrahedron: Asymmetry 19 (2008) 1356



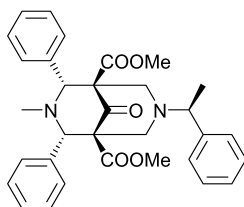
C₇H₁₃NO₂

(1S,2R,5R)-2-Amino-5-methyl-cyclopentane-carboxylic acid

$[\alpha]_D^{17} = -18.8$ (c 1.0, H₂O)
source of chirality: asymmetric synthesis
absolute configuration: (1S,2R,5R)

Giordano Lesma, Tullio Pilati, Alessandro Sacchetti*, Alessandra Silvani

Tetrahedron: Asymmetry 19 (2008) 1363



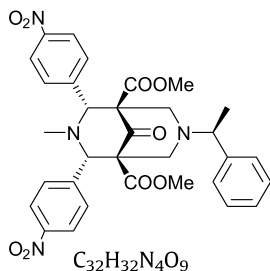
C₃₂H₃₄N₂O₅

(1R,2R,4S,5S)-3-Methyl-9-oxo-2,4-diphenyl-7-((S)-1-phenyl-ethyl)-3,7-diaza-bicyclo[3.3.1]nonane-1,5-dicarboxylic acid dimethyl ester

$[\alpha]_D^{20} = +6.5$ (c 1, CHCl₃)
Source of asymmetry: (S)-1-phenyl-ethylamine
Absolute configuration: (1'S,1R,2R,4S,5S)

Giordano Lesma, Tullio Pilati, Alessandro Sacchetti*, Alessandra Silvani

Tetrahedron: Asymmetry 19 (2008) 1363

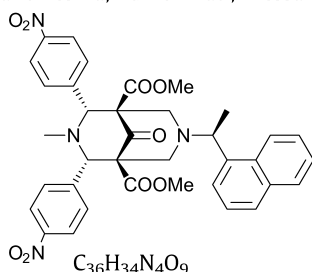


$[\alpha]_D^{20} = +4.9$ (c 1, $CHCl_3$)
Source of asymmetry: (S)-1-phenyl-ethylamine
Absolute configuration: (1'S,1R,2R,4S,5S)

(1R,2R,4S,5S)-3-Methyl-2,4-bis-(4-nitro-phenyl)-9-oxo-7-((S)-1-phenyl-ethyl)-3,7-diaza-bicyclo[3.3.1]nonane-1,5-dicarboxylic acid dimethyl ester

Giordano Lesma, Tullio Pilati, Alessandro Sacchetti*, Alessandra Silvani

Tetrahedron: Asymmetry 19 (2008) 1363

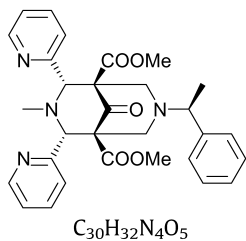


$[\alpha]_D^{20} = +12.9$ (c 1, $CHCl_3$)
Source of asymmetry: (S)-1-naphthalen-1-yl-ethylamine
Absolute configuration: (1'S,1R,2R,4S,5S)

(1R,2R,4S,5S)-3-Methyl-7-((S)-1-naphthalen-1-yl-ethyl)-2,4-bis-(4-nitro-phenyl)-9-oxo-3,7-diaza-bicyclo[3.3.1]nonane-1,5-dicarboxylic acid dimethyl ester

Giordano Lesma, Tullio Pilati, Alessandro Sacchetti*, Alessandra Silvani

Tetrahedron: Asymmetry 19 (2008) 1363

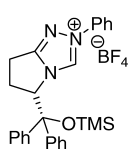


$[\alpha]_D^{20} = +8.0$ (c 1, $CHCl_3$)
Source of asymmetry: (R)-1-phenyl-ethylamine
Absolute configuration: (1'S,1R,2R,4S,5S)

(1R,2S,4R,5S)-3-Methyl-9-oxo-7-((S)-1-phenyl-ethyl)-2,4-di-pyridin-2-yl-3,7-diaza-bicyclo[3.3.1]nonane-1,5-dicarboxylic acid dimethyl ester

Dieter Enders*, Jianwei Han

Tetrahedron: Asymmetry 19 (2008) 1367

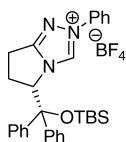


$[\alpha]_D^{23} = -130.2$ (c 1.01, $CHCl_3$)
Source of chirality: (S)-glutamic acid
Absolute configuration: (S)

(S)-5-[Diphenyl(trimethylsilyloxy)methyl]-2-phenyl-6,7-dihydro-5H-pyrrolo[2,1-c][1,2,4]triazol-2-ium tetrafluoroborate

Dieter Enders*, Jianwei Han

Tetrahedron: Asymmetry 19 (2008) 1367



$C_{30}H_{36}BF_4N_3OSi$

(S)-5-[(*tert*-Butyldimethylsilyloxy)diphenylmethyl]-2-phenyl-6,7-dihydro-5H-pyrrolo[2,1-c][1,2,4]triazol-2-ium tetrafluoroborate

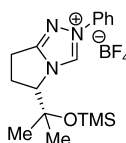
$[\alpha]_D^{23} = -137.5$ (c 1.01, $CHCl_3$)

Source of chirality: (S)-glutamic acid

Absolute configuration: (S)

Dieter Enders*, Jianwei Han

Tetrahedron: Asymmetry 19 (2008) 1367



$C_{17}H_{26}BF_4N_3OSi$

(S)-2-Phenyl-5-[2-(trimethylsilyloxy)propan-2-yl]-6,7-dihydro-5H-pyrrolo[2,1-c][1,2,4]triazol-2-ium tetrafluoroborate

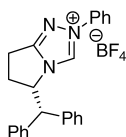
$[\alpha]_D^{23} = -46.3$ (c 1.01, $CHCl_3$)

Source of chirality: (S)-glutamic acid

Absolute configuration: (S)

Dieter Enders*, Jianwei Han

Tetrahedron: Asymmetry 19 (2008) 1367



$C_{24}H_{22}BF_4N_3OSi$

(S)-5-Benzhydryl-2-phenyl-6,7-dihydro-5H-pyrrolo[2,1-c][1,2,4]triazol-2-ium tetrafluoroborate

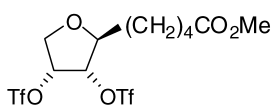
$[\alpha]_D^{23} = +14.5$ (c 1.01, $CHCl_3$)

Source of chirality: (S)-glutamic acid

Absolute configuration: (S)

Lingala Vijaya Raghava Reddy, Golla Narayana Swamy, Arun K. Shaw*

Tetrahedron: Asymmetry 19 (2008) 1372



$C_{12}H_{16}F_6O_9S_2$

Methyl 5-((2S,3S,4R)-3,4-bis(trifluoromethylsulfonyloxy)tetrahydrofuran-2-yl)pentanoate

De >99%

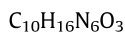
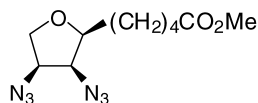
$[\alpha]_D = -36.6$ (c 0.18, $CHCl_3$)

Source of chirality: asymmetric synthesis

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

Lingala Vijaya Raghava Reddy, Golla Narayana Swamy, Arun K. Shaw*

Tetrahedron: Asymmetry 19 (2008) 1372



Methyl 5-((2S,3S,4R)-3,4-diazidotetrahydrofuran-2-yl)pentanoate

De >99%

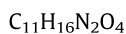
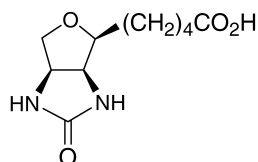
$[\alpha]_D = +31.3$ (c 0.15, $C_6H_5Cl_3$)

Source of chirality: asymmetric synthesis

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

Lingala Vijaya Raghava Reddy, Golla Narayana Swamy, Arun K. Shaw*

Tetrahedron: Asymmetry 19 (2008) 1372



(+)-Oxybiotin

De >99%

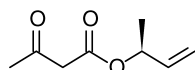
$[\alpha]_D = +57.2$ (c 0.10, 1 M NaOH)

Source of chirality: asymmetric synthesis

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

Giorgio Molteni*, Alessandro Ponti

Tetrahedron: Asymmetry 19 (2008) 1381



2(S)-But-3-en-2-yl acetoacetate

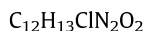
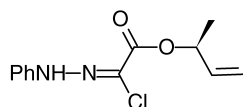
$[\alpha]_D^{25} = +37.3$ (c 0.88, $CHCl_3$)

Source of chirality: (S)-(+)-but-3-en-2-ol

Absolute configuration: (2S)

Giorgio Molteni*, Alessandro Ponti

Tetrahedron: Asymmetry 19 (2008) 1381



N-[1-Chloro-2-oxo-2(2(S)-but-3-enyloxy)acetylidene]-N'-phenylhydrazine

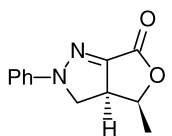
$[\alpha]_D^{25} = +59.7$ (c 0.52, $CHCl_3$)

Source of chirality: the precursor

Absolute configuration: (2S)

Giorgio Molteni*, Alessandro Ponti

Tetrahedron: Asymmetry 19 (2008) 1381



C₁₂H₁₂N₂O₂

2-Phenyl-3a(S)-4(S)-methyl-6-oxo-3,3a,4,5-tetrahydro-furo[3,4-c]pyrazole

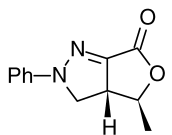
$[\alpha]_D^{25} = +66.1$ (c 0.77, CHCl₃)

Source of chirality: the precursor

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

Giorgio Molteni*, Alessandro Ponti

Tetrahedron: Asymmetry 19 (2008) 1381



C₁₂H₁₂N₂O₂

2-Phenyl-3a(R)-4(S)-methyl-6-oxo-3,3a,4,5-tetrahydro-furo[3,4-c]pyrazole

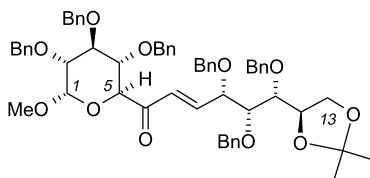
$[\alpha]_D^{25} = -21.4$ (c 0.59, CHCl₃)

Source of chirality: the precursor

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

Slawomir Jarosz*, Agnieszka Gajewska, Roman Luboradzki

Tetrahedron: Asymmetry 19 (2008) 1385



C₅₉H₆₄O₁₁

Methyl 2,3,4,9,10,11-hexa-O-benzyl-7,8-dideoxy-7,8-didehydro-12,13-O-isopropylidene- α -D-gluco-D-gluco-tridec-7(E)-eno-1,5-pyranosid-6-ulose

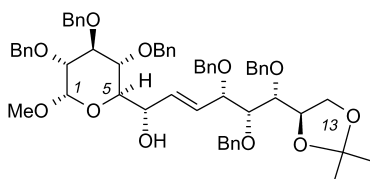
$[\alpha]_D = +6.9$ (c 1.0, CHCl₃)

Source of chirality: chiral pool

Absolute configuration: (1S,2R,3S,4R,5S,9S,10R,11R,12R)

Slawomir Jarosz*, Agnieszka Gajewska, Roman Luboradzki

Tetrahedron: Asymmetry 19 (2008) 1385



C₅₉H₆₆O₁₁

Methyl 2,3,4,9,10,11-hepta-O-benzyl-7,8-dideoxy-7,8-didehydro-12,13-O-isopropylidene- α -D-glycero-D-ido-D-gluco-trideca-7(E)-eno-1,5-pyranoside

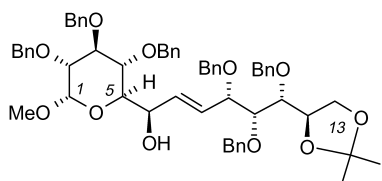
$[\alpha]_D = +17.9$ (c 1.0, CHCl₃)

Source of chirality: chiral pool

Absolute configuration: (1S,2R,3S,4R,5R,6S,9S,10R,11R,12R)

Slawomir Jarosz,* Agnieszka Gajewska, Roman Luboradzki

Tetrahedron: Asymmetry 19 (2008) 1385



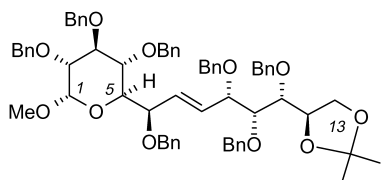
$[\alpha]_D = +29.1$ (c 1.0, CHCl₃)
Source of chirality: chiral pool
Absolute configuration: (1*S*,2*R*,3*S*,4*R*,5*R*,6*R*,9*S*,
10*R*,11*R*,12*R*)

C₅₉H₆₆O₁₁

Methyl 2,3,4,9,10,11-penta-*O*-benzyl-7,8-dideoxy-7,8-didehydro-12,13-*O*-isopropylidene- α -*D*-glycero-*D*-gulo-*D*-gluco-tridec-7(*E*)-eno-1,5-pyranoside

Slawomir Jarosz,* Agnieszka Gajewska, Roman Luboradzki

Tetrahedron: Asymmetry 19 (2008) 1385



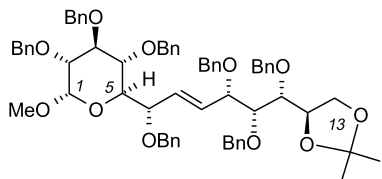
$[\alpha]_D = +9.3$ (c 1.0, CHCl₃)
Source of chirality: chiral pool
Absolute configuration: (1*S*,2*R*,3*S*,4*R*,5*R*,6*R*,9*S*,10*R*,
11*R*,12*R*)

C₆₆H₇₂O₁₁

Methyl 2,3,4,6,9,10,11-hepta-*O*-benzyl-7,8-dideoxy-7,8-didehydro-12,13-*O*-isopropylidene- α -*D*-glycero-*D*-gulo-*D*-gluco-tridec-7(*E*)-eno-1,5-pyranoside

Slawomir Jarosz,* Agnieszka Gajewska, Roman Luboradzki

Tetrahedron: Asymmetry 19 (2008) 1385



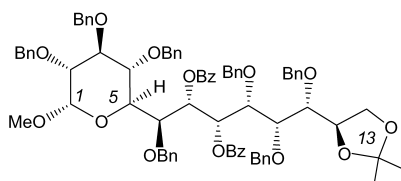
$[\alpha]_D = +44.7$ (c 1.0, CHCl₃)
Source of chirality: chiral pool
Absolute configuration: (1*S*,2*R*,3*S*,4*R*,5*R*,6*S*,9*S*,
10*R*,11*R*,12*R*)

C₆₆H₇₂O₁₁

Methyl 2,3,4,6,9,10,11-hepta-*O*-benzyl-7,8-dideoxy-7,8-didehydro-12,13-*O*-isopropylidene- α -*D*-glycero-*D*-ido-*D*-gluco-trideca-7(*E*)-eno-1,5-pyranoside

Slawomir Jarosz,* Agnieszka Gajewska, Roman Luboradzki

Tetrahedron: Asymmetry 19 (2008) 1385



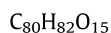
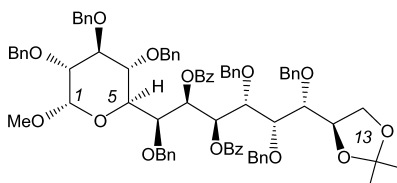
$[\alpha]_D = -3.0$ (c 1.0, CHCl₃)
Source of chirality: chiral pool
Absolute configuration: (1*S*,2*R*,3*S*,4*R*,5*R*,6*R*,7*R*,8*S*,9*R*,
10*S*,11*R*,12*R*)

C₈₀H₈₂O₁₅

Methyl 2,3,4,6,9,10,11-hepta-*O*-benzyl-7,8-di-*O*-benzoyl-12,13-*O*-isopropylidene- α -*D*-arabino-*D*-gulo-*D*-gluco-trideca-1,5-pyranoside

Slawomir Jarosz,* Agnieszka Gajewska, Roman Luboradzki

Tetrahedron: Asymmetry 19 (2008) 1385



Methyl 2,3,4,6,9,10,11-hepta-O-benzyl-7,8-di-O-benzoyl-12,13-O-isopropylidene- α -D-arabino-D-gluco-D-gluco-trideca-1,5-pyranoside

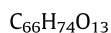
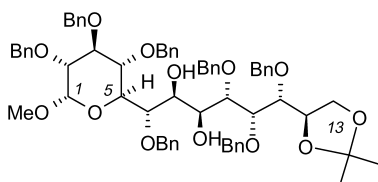
$[\alpha]_D = +37.4$ (c 1.0, $CHCl_3$)

Source of chirality: chiral pool

Absolute configuration: (1S,2R,3S,4R,5R,6R,7S,8R,9R,10S,11R,12R)

Slawomir Jarosz,* Agnieszka Gajewska, Roman Luboradzki

Tetrahedron: Asymmetry 19 (2008) 1385



Methyl 2,3,4,6,9,10,11-hepta-O-benzyl-12,13-O-isopropylidene- α -D-arabino-D-ido-D-gluco-trideca-1,5-pyranoside

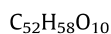
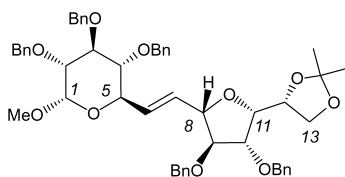
$[\alpha]_D = +11.1$ (c 1.0, $CHCl_3$)

Source of chirality: chiral pool

Absolute configuration: (1S,2R,3S,4R,5R,6S,7S,8R,9R,10S,11R,12R)

Slawomir Jarosz,* Agnieszka Gajewska, Roman Luboradzki

Tetrahedron: Asymmetry 19 (2008) 1385



Methyl 8,11-anhydro-2,3,4,9,10-penta-O-benzyl-6,7-dideoxy-6,7-didehydro-12,13-O-isopropylidene- α -D-glycero-D-gulo-D-gluco-tridec-6(E)-eno-1,5-pyranoside

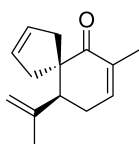
$[\alpha]_D = -4.7$ (c 1.0, $CHCl_3$)

Source of chirality: chiral pool

Absolute configuration: (1S,2R,3S,4R,5R,8S,9S,10R,11R,12R)

Adusumilli Srikrishna*, Vijendra H. Pardeshi, Pinnu Thriveni

Tetrahedron: Asymmetry 19 (2008) 1392



(10S)-10-Isopropenyl-7-methylspiro[4.5]deca-2,7-dien-6-one

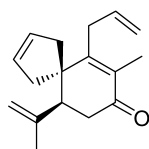
$[\alpha]_D^{25} = -179.2$ (c 1.3, $CHCl_3$)

Source of chirality: (R)-carvone

Absolute configuration: (10S)

Adusumilli Srikrishna*, Vijendra H. Pardeshi, Pinnu Thriveni

Tetrahedron: Asymmetry 19 (2008) 1392



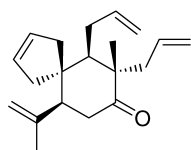
C₁₇H₂₂O

(10*S*)-6-Allyl-10-isopropenyl-7-methylspiro[4.5]deca-2,6-dien-8-one

$[\alpha]_D^{25} = +7.8$ (c 1.8, CHCl₃)
Source of chirality: (*R*)-carvone
Absolute configuration: (10*S*)

Adusumilli Srikrishna*, Vijendra H. Pardeshi, Pinnu Thriveni

Tetrahedron: Asymmetry 19 (2008) 1392



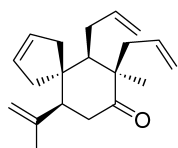
C₂₀H₂₈O

(6*R*,7*S*,10*S*)-6,7-Bis-allyl-10-isopropenyl-7-methylspiro[4.5]dec-2-en-8-one

$[\alpha]_D^{20} = +13.2$ (c 4.8, CHCl₃)
Source of chirality: (*R*)-carvone
Absolute configuration: (6*R*,7*S*,10*S*)

Adusumilli Srikrishna*, Vijendra H. Pardeshi, Pinnu Thriveni

Tetrahedron: Asymmetry 19 (2008) 1392



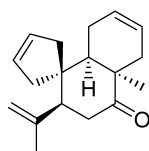
C₂₀H₂₈O

(6*R*,7*R*,10*S*)-6,7-Bis-allyl-10-isopropenyl-7-methylspiro[4.5]dec-2-en-8-one

$[\alpha]_D^{24} = +3.7$ (c 1.9, CHCl₃)
Source of chirality: (*R*)-carvone
Absolute configuration: (6*R*,7*R*,10*S*)

Adusumilli Srikrishna*, Vijendra H. Pardeshi, Pinnu Thriveni

Tetrahedron: Asymmetry 19 (2008) 1392



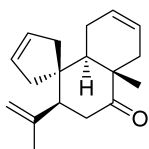
C₁₈H₂₄O

(1*R*,4*S*,6*R*)-4-Isopropenyl-1-methylbicyclo[4.4.0]decane-spiro[5,1]cyclopenta-8,3-dien-2-one

$[\alpha]_D^{27} = -3.3$ (c 0.6, CHCl₃)
Source of chirality: (*R*)-carvone
Absolute configuration: (1*R*,4*S*,6*R*)

Adusumilli Srikrishna*, Vijendra H. Pardeshi, Pinnu Thriveni

Tetrahedron: Asymmetry 19 (2008) 1392



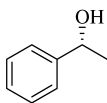
C₁₈H₂₄O

(1S,4S,6R)-4-Isopropenyl-1-methylbicyclo[4.4.0]decane-spiro[5,1]cyclopenta-8,3-dien-2-one

$[\alpha]_D^{21} = +25.7$ (c 2.5, CHCl₃)
Source of chirality: (R)-carvone
Absolute configuration: (1S,4S,6R)

Bo Tang, Wei Xiong,* De-Rong Liu, Yun Jia, Jin-Bo Wang, Hua Chen, Xian-Jun Li

Tetrahedron: Asymmetry 19 (2008) 1397



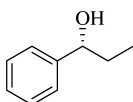
C₈H₁₀O

(R)-(+)-1-Phenylethanol

Ee = 77.7%
 $[\alpha]_D^{24} = +38.5$ (c 1.12, CH₂Cl₂)
Source of chirality: asymmetric hydrogenation
Absolute configuration: (R)

Bo Tang, Wei Xiong,* De-Rong Liu, Yun Jia, Jin-Bo Wang, Hua Chen, Xian-Jun Li

Tetrahedron: Asymmetry 19 (2008) 1397



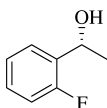
C₉H₁₂O

(R)-(+)-1-Phenylpropanol

Ee = 78.0%
 $[\alpha]_D^{24} = +22.6$ (c 1.23, C₂H₅OH)
Source of chirality: asymmetric hydrogenation
Absolute configuration: (R)

Bo Tang, Wei Xiong,* De-Rong Liu, Yun Jia, Jin-Bo Wang, Hua Chen, Xian-Jun Li

Tetrahedron: Asymmetry 19 (2008) 1397



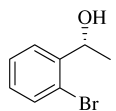
C₈H₉OF

(R)-(+)-1-(2'-Fluorophenyl)ethanol

Ee = 44.3%
 $[\alpha]_D^{24} = +21.7$ (c 1.36, CHCl₃)
Source of chirality: asymmetric hydrogenation
Absolute configuration: (R)

Bo Tang, Wei Xiong,* De-Rong Liu, Yun Jia, Jin-Bo Wang, Hua Chen, Xian-Jun Li

Tetrahedron: Asymmetry 19 (2008) 1397



C_8H_9OBr

(*R*)-(+)-1-(2'-Bromophenyl)ethanol

Ee = 43.7%

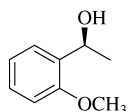
$[\alpha]_D^{24} = +29.3$ (c 1.24, $CHCl_3$)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*R*)

Bo Tang, Wei Xiong,* De-Rong Liu, Yun Jia, Jin-Bo Wang, Hua Chen, Xian-Jun Li

Tetrahedron: Asymmetry 19 (2008) 1397



$C_9H_{12}O_2$

(*S*)-(-)-1-(2'-Methoxyphenyl)ethanol

Ee = 33.4%

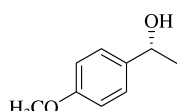
$[\alpha]_D^{24} = -10.3$ (c 1.65, $CHCl_3$)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*S*)

Bo Tang, Wei Xiong,* De-Rong Liu, Yun Jia, Jin-Bo Wang, Hua Chen, Xian-Jun Li

Tetrahedron: Asymmetry 19 (2008) 1397



$C_9H_{12}O_2$

(*R*)-(+)-1-(4'-Methoxyphenyl)ethanol

Ee = 74.6%

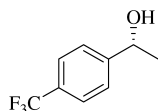
$[\alpha]_D^{24} = +38.6$ (c 1.13, $CHCl_3$)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*R*)

Bo Tang, Wei Xiong,* De-Rong Liu, Yun Jia, Jin-Bo Wang, Hua Chen, Xian-Jun Li

Tetrahedron: Asymmetry 19 (2008) 1397



$C_9H_9OF_3$

(*R*)-(+)-1-(4'-Trifluoromethylphenyl)ethanol

Ee = 73.6%

$[\alpha]_D^{24} = +27.5$ (neat)

Source of chirality: asymmetric hydrogenation

Absolute configuration: (*R*)