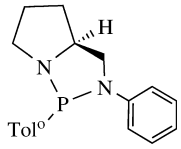
Valery V. Dunina,* Olga N. Gorunova, Valeriya A. Stepanova, Pavel A. Zykov, Michail V. Livantsov, Yuri K. Grishin, Andrey V. Churakov and Lyudmila G. Kuz'mina

Tetrahedron: Asymmetry *18 (2007) 2011*

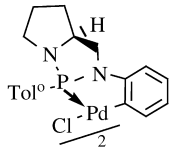


Ee = >98%
$[\alpha]_D^{24} = -345$ (*c* 1.00, $CHCl_3$)
Source of chirality: (*S*)-proline
Absolute configuration: (S_C)

$C_{18}H_{21}N_2P$
(2*R*,5*S*)-2-(2-Methylphenyl)-3-phenyl-1,3-diaza-2-phosphabicyclo[3.3.0]octane

Valery V. Dunina,* Olga N. Gorunova, Valeriya A. Stepanova, Pavel A. Zykov, Michail V. Livantsov, Yuri K. Grishin, Andrey V. Churakov and Lyudmila G. Kuz'mina

Tetrahedron: Asymmetry *18 (2007) 2011*

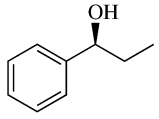


Ee = >98%
$[\alpha]_D^{24} = -106.4$ (*c* 0.235, CH_2Cl_2)
Source of chirality: diastereoselective synthesis
Absolute configuration: ($S_C S_N 1 S_N 3 S_P$)

$C_{36}H_{40}N_4Cl_2P_2Pd_2$
Di-μ-chloro-bis{2-(2-methylphenyl)-3-phenyl-1,3-diaza-2-phosphabicyclo[3.3.0]octane-*P*,*C*}dipalladium(II)

Suribabu Jammi, Laxmidhar Rout and Tharmalingam Punniyamurthy*

Tetrahedron: Asymmetry *18 (2007) 2016*

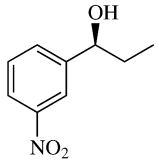


Ee = 50%
$[\alpha]_D^{25} = -13$ (*c* 1, $CHCl_3$)
Source of chirality: asymmetric Et_2Zn addition
Absolute configuration: (*S*)

$C_9H_{12}O$
(*S*)-(−)-1-Phenyl-1-propanol

Suribabu Jammi, Laxmidhar Rout and Tharmalingam Punniyamurthy*

Tetrahedron: Asymmetry *18 (2007) 2016*

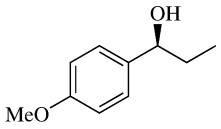


Ee = 70%
$[\alpha]_D^{25} = -23$ (*c* 1.2, EtOH)
Source of chirality: asymmetric Et_2Zn addition
Absolute configuration: (*S*)

$C_9H_{12}NO_3$
(*S*)-(−)-1-(3-Nitrophenyl)-propan-1-ol

Suribabu Jammi, Laxmidhar Rout and Tharmalingam Punniyamurthy*

Tetrahedron: Asymmetry *18 (2007) 2016*



$C_{10}H_{14}O_2$

(*S*)-(−)-1-(4-Methoxyphenyl)-1-propanol

Ee = 60%

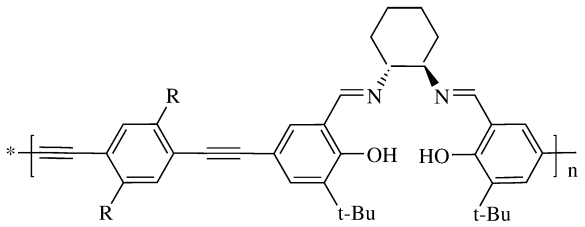
$[\alpha]_D^{25} = -22$ (*c* 1.1, benzene)

Source of chirality: asymmetric Et_2Zn addition

Absolute configuration: (*S*)

Suribabu Jammi, Laxmidhar Rout and Tharmalingam Punniyamurthy*

Tetrahedron: Asymmetry *18 (2007) 2016*



R = $C_8H_{17}O$

Chiral linear polymer bonded alternatively with salen and 1,4-dialkoxy-2,6-diethynylbenzene

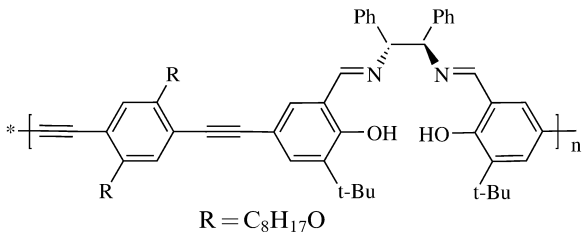
$[\alpha]_D^{25} = +376$ (*c* 0.1, THF)

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

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

Suribabu Jammi, Laxmidhar Rout and Tharmalingam Punniyamurthy*

Tetrahedron: Asymmetry *18 (2007) 2016*



R = $C_8H_{17}O$

Chiral linear polymer bonded alternatively with salen and 1,4-dialkoxy-2,6-diethynylbenzene

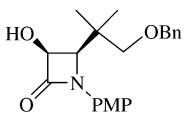
$[\alpha]_D^{25} = +166$ (*c* 0.1, $CHCl_3$)

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

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

Yan Yang, Jianmei Wang and Margaret Kayser*

Tetrahedron: Asymmetry *18 (2007) 2021*



$C_{21}H_{25}NO_4$

(3*S*,4*R*)-(−)-4-(2-Benzyloxy-1,1-dimethylethyl)-3-hydroxy-1-(4-methoxyphenyl)azetidin-2-one

Ee = >99%

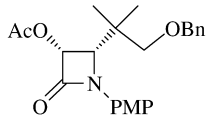
$[\alpha]_D^{20} = -77.1$ (*c* 1.0, CH_2Cl_2)

Source of chirality: lipase resolution

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

Yan Yang, Jianmei Wang and Margaret Kayser*

Tetrahedron: Asymmetry *18 (2007) 2021*



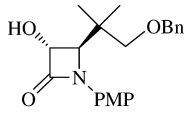
Ee = >99%
$[\alpha]_D^{20} = +51.0$ (*c* 1.0, CH_2Cl_2)
Source of chirality: lipase resolution
Absolute configuration: (3*R*,4*S*)

$C_{23}H_{27}NO_5$

(3*R*,4*S*)-(+)-3-Acetoxy-4-(2-benzyloxy-1,1-dimethylethyl)-1-(4-methoxyphenyl)azetidin-2-one

Yan Yang, Jianmei Wang and Margaret Kayser*

Tetrahedron: Asymmetry *18 (2007) 2021*



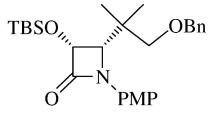
Ee = >99%
$[\alpha]_D^{20} = +39.5$ (*c* 0.25, CH_2Cl_2)
Source of chirality: baker's yeast reduction
Absolute configuration: (3*R*,4*R*)

$C_{21}H_{25}NO_4$

(3*R*,4*R*)-(+)-4-(2-Benzyloxy-1,1-dimethylethyl)-3-hydroxy-1-(4-methoxyphenyl)azetidin-2-one

Yan Yang, Jianmei Wang and Margaret Kayser*

Tetrahedron: Asymmetry *18 (2007) 2021*



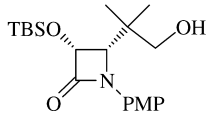
Ee = >99%
$[\alpha]_D^{20} = +52.1$ (*c* 1.2, CH_2Cl_2)
Source of chirality: enantiopure reactant
Absolute configuration: (3*R*,4*S*)

$C_{27}H_{39}NO_4Si$

(3*R*,4*S*)-(+)-4-(2-Benzyloxy-1,1-dimethylethyl)-3-(*tert*-butyldimethylsilanyloxy)-1-(4-methoxyphenyl)azetidin-2-one

Yan Yang, Jianmei Wang and Margaret Kayser*

Tetrahedron: Asymmetry *18 (2007) 2021*



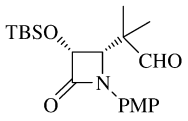
Ee = >99%
$[\alpha]_D^{20} = +53.7$ (*c* 1.0, CH_2Cl_2)
Source of chirality: enantiopure reactant
Absolute configuration: (3*R*,4*S*)

$C_{20}H_{33}NO_4Si$

(3*R*,4*S*)-(+)-3-(*tert*-Butyldimethylsilanyloxy)-4-(1,1-dimethylethyl-2-hydroxyl)-1-(4-methoxyphenyl)azetidin-2-one

Yan Yang, Jianmei Wang and Margaret Kayser*

Tetrahedron: Asymmetry *18 (2007) 2021*



Ee = >99%
$[\alpha]_D^{20}$ = +56.4 (*c* 1.05, CH_2Cl_2)
Source of chirality: enantiopure reactant
Absolute configuration: (3*R*,4*S*)

$C_{20}H_{31}NO_4Si$

(3*R*,4*S*)-(+)-3-(*tert*-Butyldimethylsilanyloxy)-4-(1-formyl-1,1-dimethylmethyl)-1-(4-methoxyphenyl)azetidin-2-one

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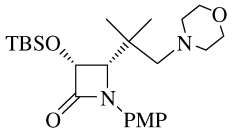
Yan Yang, Jianmei Wang and Margaret Kayser*

Tetrahedron: Asymmetry *18 (2007) 2021*



Ee = >99%
$[\alpha]_D^{20}$ = +48.7 (*c* 1.5, CH_2Cl_2)
Source of chirality: enantiopure reactant
Absolute configuration: (3*R*,4*S*)

$C_{24}H_{40}N_2O_4Si$

(3*R*,4*S*)-(+)-3-(*tert*-Butyldimethylsilanyloxy)-4-(1,1-dimethyl-2-morpholinoethyl)-1-(4-methoxyphenyl)azetidin-2-one

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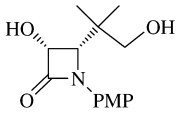
Yan Yang, Jianmei Wang and Margaret Kayser*

Tetrahedron: Asymmetry *18 (2007) 2021*



Ee = >99%
$[\alpha]_D^{20}$ = +70.2 (*c* 1.0, CH_2Cl_2)
Source of chirality: enantiopure reactant
Absolute configuration: (3*R*,4*S*)

$C_{14}H_{19}NO_4$

(3*R*,4*S*)-(+)-3-Hydroxy-4-(1,1-dimethyl-2-hydroxy-ethyl)-1-(4-methoxyphenyl)azetidin-2-one

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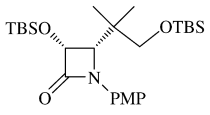
Yan Yang, Jianmei Wang and Margaret Kayser*

Tetrahedron: Asymmetry *18 (2007) 2021*



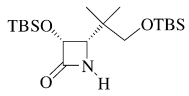
Ee = >99%
$[\alpha]_D^{20}$ = +34.8 (*c* 1.0, CH_2Cl_2)
Source of chirality: enantiopure reactant
Absolute configuration: (3*R*,4*S*)

$C_{26}H_{47}NO_4Si_2$

(3*R*,4*S*)-(+)-3-(*tert*-Butyldimethylsilanyloxy)-4-(2-(*tert*-butyldimethylsilanyloxy)-1,1-dimethylethyl)-1-(4-methoxyphenyl)azetidin-2-one

Yan Yang, Jianmei Wang and Margaret Kayser*

Tetrahedron: Asymmetry *18 (2007) 2021*



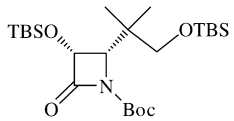
Ee = >99%
$[\alpha]_D^{20} = +47.1$ (*c* 0.25, CH_2Cl_2)
Source of chirality: enantiopure reactant
Absolute configuration: (3*R*,4*S*)

$C_{19}H_{41}NO_3Si_2$

(3*R*,4*S*)-(+)-3-(*tert*-Butyldimethylsilanyloxy)-4-(2-*tert*-butyldimethylsilanyloxy-1,1-dimethylethyl)azetidin-2-one

Yan Yang, Jianmei Wang and Margaret Kayser*

Tetrahedron: Asymmetry *18 (2007) 2021*



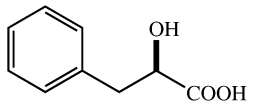
Ee = >99%
$[\alpha]_D^{20} = +57.1$ (*c* 1.01, CH_2Cl_2)
Source of chirality: enantiopure reactant
Absolute configuration: (3*R*,4*S*)

$C_{24}H_{49}NO_5Si_2$

(3*R*,4*S*)-(+)-1-(*tert*-Butoxycarbonyl)-3-(*tert*-butyldimethylsilanyloxy)-4-(2-(*tert*-butyldimethylsilanyloxy)-1,1-dimethylethyl)-azetidin-2-one

Tarcila Cazetta, Inês Lunardi, Gelson J. A. Conceição, Paulo J. S. Moran and J. Augusto R. Rodrigues*

Tetrahedron: Asymmetry *18 (2007) 2030*



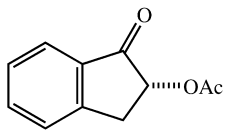
Ee = >99%
$[\alpha]_D^{20} = +25.4$ (*c* 1, H_2O)
Source of chirality: D-(*R*)-phenylalanine
Absolute configuration: (2*R*)

$C_9H_{10}O_3$

(*R*)-2-Hydroxy-3-phenylpropanoic acid

Tarcila Cazetta, Inês Lunardi, Gelson J. A. Conceição, Paulo J. S. Moran and J. Augusto R. Rodrigues*

Tetrahedron: Asymmetry *18 (2007) 2030*



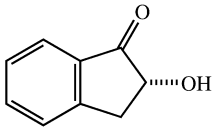
Ee = >99%
$[\alpha]_D^{20} = -19.0$ (*c* 1.0, MeOH)
Source of chirality: D-(*R*)-phenylalanine
Absolute configuration: (2*R*)

$C_{11}H_{10}O_3$

(*R*)-2-Acetoxy-1-indanone

Tarcila Cazetta, Inês Lunardi, Gelson J. A. Conceição, Paulo J. S. Moran and J. Augusto R. Rodrigues*

Tetrahedron: Asymmetry *18 (2007) 2030*



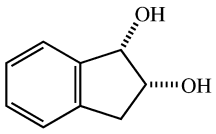
$C_9H_8O_2$

(*R*)-2-Hydroxy-1-indanone

Ee = 98%
$[\alpha]_D^{20} = -53.0$ (*c* 1, MeOH)
Source of chirality: D-(*R*)-phenylalanine
Absolute configuration: (2*R*)

Tarcila Cazetta, Inês Lunardi, Gelson J. A. Conceição, Paulo J. S. Moran and J. Augusto R. Rodrigues*

Tetrahedron: Asymmetry *18 (2007) 2030*



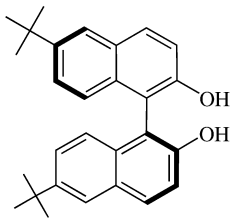
$C_9H_{10}O_2$

(1*S*,2*R*)-1,2-Indanediol

Ee = >99%
$[\alpha]_D^{20} = -38.8$ (*c* 1.0, $CHCl_3$)
Source of chirality: stereoinversion of (±)-2-hydroxy-1-indanone
Absolute configuration: (1*S*,2*R*)

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*



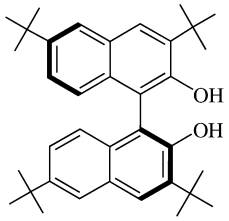
$C_{28}H_{30}O_2$

6,6′-Di-*tert*-butyl-1,1′-binaphthalene-2,2′-diol

$[\alpha]_D^{27} = +48.0$ (*c* 1, THF)
Source of chirality: BINOL
Absolute configuration: (*S*)

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*



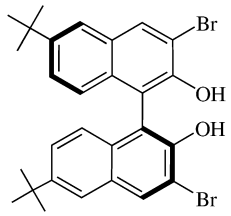
$C_{36}H_{46}O_2$

3,3′,6,6′-Tetra-*tert*-butyl-1,1′-binaphthalene-2,2′-diol

$[\alpha]_D^{27} = +38.2$ (*c* 1, THF)
Source of chirality: BINOL
Absolute configuration: (*S*)

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*



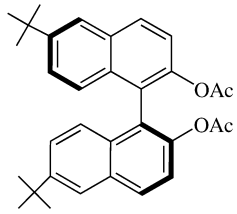
$C_{28}H_{38}Br_2O_2$

3,3′-Dibromo-6,6′-di-*tert*-butyl-1,1′-binaphthalene-2,2′-diol

$[\alpha]_D^{27} = +50.0$ (*c* 1, THF)
Source of chirality: BINOL
Absolute configuration: (*S*)

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*



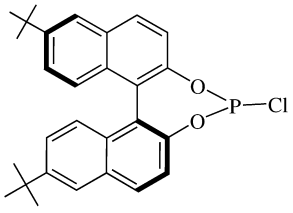
$C_{32}H_{34}O_4$

6,6′-Di-*tert*-butyl-1,1′-binaphthalene-2,2′-diacetate

$[\alpha]_D^{27} = +60.6$ (*c* 1, THF)
Source of chirality: BINOL
Absolute configuration: (*S*)

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*



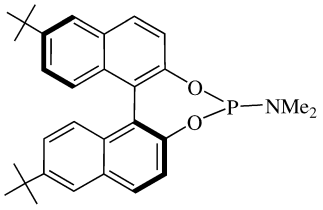
$C_{28}H_{28}ClO_2P$

9,14-Di-*tert*-butyl-4-chloro-3,5-dioxa-4-phospha-cyclohepta[2,1-*a*;3,4-*a*′]dinaphthalene

$[\alpha]_D^{27} = +835.0$ (*c* 0.5, toluene)
Source of chirality: BINOL
Absolute configuration: (*S*)

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*



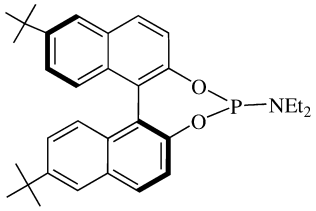
$C_{30}H_{34}NO_2P$

(9,14-Di-*tert*-butyl-3,5-dioxa-4-phospha-cyclohepta[2,1-*a*;3,4-*a*′]dinaphthalene-4-yl)-dimethyl amine

$[\alpha]_D^{27} = +512.0$ (*c* 0.5, $CHCl_3$)
Source of chirality: BINOL
Absolute configuration: (*S*)

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*



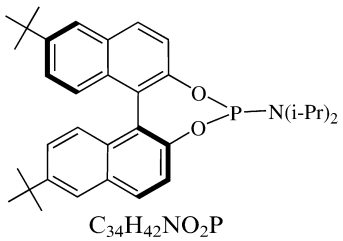
$[\alpha]_D^{27} = +426.0$ (c 0.5, $CHCl_3$)
Source of chirality: BINOL
Absolute configuration: (*S*)

$C_{32}H_{38}NO_2P$

(9,14-Di-*tert*-butyl-3,5-dioxa-4-phospha-cyclohepta[2,1-*a*;3,4-*a*′]dinaphthalene-4-yl)-diethyl amine

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*



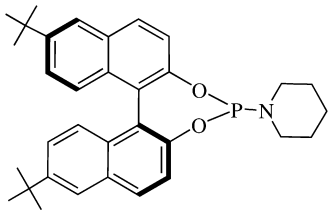
$[\alpha]_D^{27} = +526.2$ (c 0.5, $CHCl_3$)
Source of chirality: BINOL
Absolute configuration: (*S*)

$C_{34}H_{42}NO_2P$

(9,14-Di-*tert*-butyl-3,5-dioxa-4-phospha-cyclohepta[2,1-*a*;3,4-*a*′]dinaphthalene-4-yl)-diisopropyl amine

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*



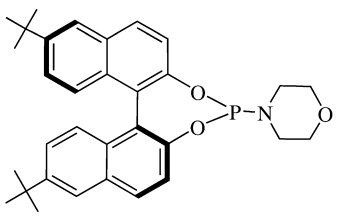
$[\alpha]_D^{27} = +473.1$ (c 0.5, $CHCl_3$)
Source of chirality: BINOL
Absolute configuration: (*S*)

$C_{33}H_{38}NO_2P$

1-(9,14-Di-*tert*-butyl-3,5-dioxa-4-phospha-cyclohepta[2,1-*a*;3,4-*a*′]dinaphthalene-4-yl)-piperidine

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*



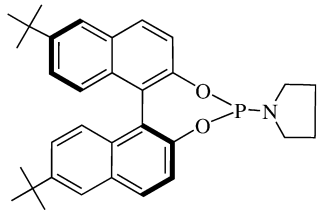
$[\alpha]_D^{27} = +498.0$ (c 0.5, $CHCl_3$)
Source of chirality: BINOL
Absolute configuration: (*S*)

$C_{32}H_{36}NO_3P$

4-(9,14-Di-*tert*-butyl-3,5-dioxa-4-phospha-cyclohepta[2,1-*a*;3,4-*a*′]dinaphthalene-4-yl)-morpholine

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*



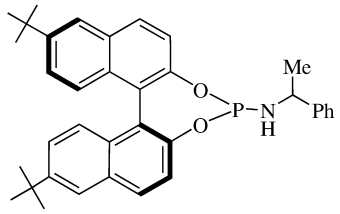
$[\alpha]_D^{27} = +300.1$ (c 0.5, $CHCl_3$)
Source of chirality: BINOL
Absolute configuration: (*S*)

$C_{32}H_{36}NO_2P$

1-(9,14-Di-*tert*-butyl-3,5-dioxa-4-phospha-cyclohepta[2,1-*a*;3,4-*a*′]dinaphthalene-4-yl)-pyrrolidine

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*



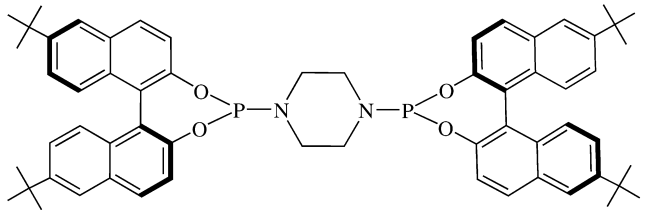
$[\alpha]_D^{27} = +215.8$ (c 0.5, $CHCl_3$)
Source of chirality: BINOL and α-methyl benzylamine
Absolute configuration: (*S*,*S*)

$C_{36}H_{38}NO_2P$

(9,14-Di-*tert*-butyl-3,5-dioxa-4-phospha-cyclohepta[2,1-*a*;3,4-*a*′]dinaphthalene-4-yl)-(1-phenyl-ethyl)-amine

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*



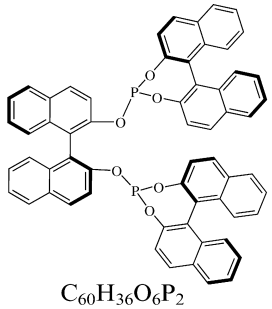
$[\alpha]_D^{27} = +311.4$ (c 0.5, $CHCl_3$)
Source of chirality: BINOL
Absolute configuration: (*S*,*S*)

$C_{60}H_{64}N_2O_4P_2$

1,4-Bis-(9,14-di-*tert*-butyl-3,5-dioxa-4-phospha-cyclohepta[2,1-*a*;3,4-*a*′]dinaphthalene-4-yl)-piperazine

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*

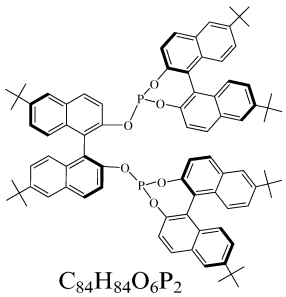


$[\alpha]_D^{27} = +335$ (c 0.5, toluene)
Source of chirality: BINOL
Absolute configuration: (*S*,*S*,*S*)

$C_{60}H_{36}O_6P_2$

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*

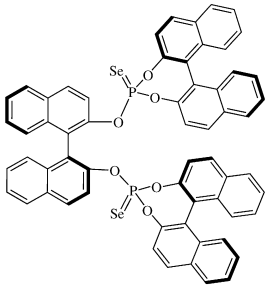


$C_{84}H_{84}O_6P_2$

$[\alpha]_D^{27} = +269.8$ (c 0.5, toluene)
Source of chirality: BINOL
Absolute configuration: (S,S,S)

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*

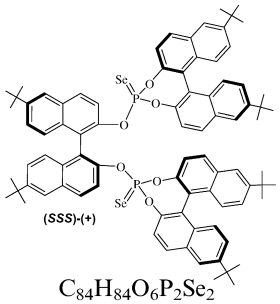


$C_{60}H_{36}O_6P_2Se_2$

$[\alpha]_D^{27} = +535.4$ (c 0.5, toluene)
Source of chirality: BINOL
Absolute configuration: (S,S,S)

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*

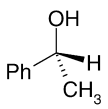


$C_{84}H_{84}O_6P_2Se_2$

$[\alpha]_D^{27} = +442.3$ (c 0.5, toluene)
Source of chirality: BINOL
Absolute configuration: (S,S,S)

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*

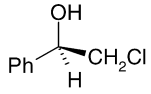


$C_8H_{10}O$
1-Phenyl-ethanol

Ee = 31%
$[\alpha]_D^{27} = +13.8$ (c 0.5, MeOH)
Source of chirality: asymmetric reduction
Absolute configuration: (R)

E. Balaraman and K. C. Kumara Swamy*

Tetrahedron: Asymmetry *18 (2007) 2037*



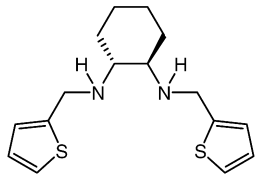
C_8H_9ClO

2-Chloro-1-phenyl-ethanol

Ee = 43%
$[\alpha]_D^{27} = +18.6$ (*c* 0.5, cyclohexane)
Source of chirality: asymmetric reduction
Absolute configuration: (*S*)

Xue-Qin Zhang, Yan-Yun Li, Hui Zhang and Jing-Xing Gao*

Tetrahedron: Asymmetry *18 (2007) 2049*



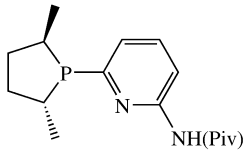
$C_{16}H_{22}N_2S_2$

(1*R*,2*R*)-N^1,N^2-Bis(thiophen-2-ylmethyl)cyclohexane-1,2-diamine

Mp 57 °C
$[\alpha]_D^{20} = -102.0$ (*c* 0.5, CH_3OH)
Source of chirality: asymmetric synthesis
Absolute configuration: (1*R*, 2*R*)

Mandy-Nicole Birkholz, Natalia V. Dubrovina, Ivan A. Shuklov, Jens Holz, Rocco Paciello, Christoph Waloch, Bernhard Breit* and Armin Börner*

Tetrahedron: Asymmetry *18 (2007) 2055*



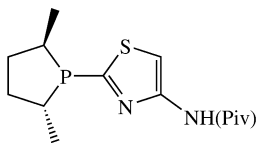
$C_{14}H_{23}N_2OP$

(2*R*,5*R*)-2,5-Dimethyl-1-(2-pivaloylamino-pyrid-6-yl)-phospholane

$[\alpha]_D^{19} = -74$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*,*R*)

Mandy-Nicole Birkholz, Natalia V. Dubrovina, Ivan A. Shuklov, Jens Holz, Rocco Paciello, Christoph Waloch, Bernhard Breit* and Armin Börner*

Tetrahedron: Asymmetry *18 (2007) 2055*



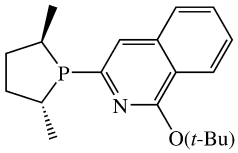
$C_{16}H_{25}N_2OP$

(2*R*,5*R*)-2,5-Dimethyl-1-(3-pivaloylamino-thiazol-4-yl)-phospholane

$[\alpha]_D^{19} = -61$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*,*R*)

Mandy-Nicole Birkholz, Natalia V. Dubrovina, Ivan A. Shuklov, Jens Holz, Rocco Paciello, Christoph Waloch, Bernhard Breit* and Armin Börner*

Tetrahedron: Asymmetry *18 (2007) 2055*

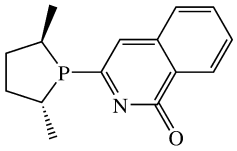


$[\alpha]_D^{19} = -97$ (*c* 0.65, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*,*R*)

$C_{19}H_{26}NOP$
(2*R*,5*R*)-2,5-Dimethyl-1-(1-*tert*-butoxy-isoquinolin-3-yl)-phospholane

Mandy-Nicole Birkholz, Natalia V. Dubrovina, Ivan A. Shuklov, Jens Holz, Rocco Paciello, Christoph Waloch, Bernhard Breit* and Armin Börner*

Tetrahedron: Asymmetry *18 (2007) 2055*

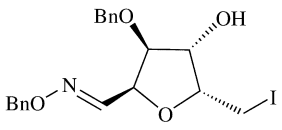


$[\alpha]_D^{19} = -129$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*,*R*)

$C_{15}H_{18}NOP$
(2*R*,5*R*)-2,5-Dimethyl-1-(1-oxo-1,2-dihydro-isoquinolin-3-yl)-phospholane

Vikas Kumar, Harsh Mohan Gauniyal and Arun K. Shaw*

Tetrahedron: Asymmetry *18 (2007) 2069*

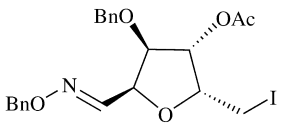


$[\alpha]_D = +29.4$ (*c* 0.18, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1′*E*,2*S*,3*R*,4*S*,5*R*)

$C_{20}H_{22}NO_4I$
(1′*E*,2*S*,3*R*,4*S*,5*R*) 3-Benzyloxy-4-hydroxy-5-iodomethyl tetrahydrofuran-2-carbaldehyde *O*-benzyloxime

Vikas Kumar, Harsh Mohan Gauniyal and Arun K. Shaw*

Tetrahedron: Asymmetry *18 (2007) 2069*

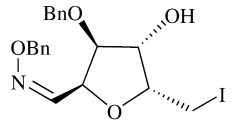


$[\alpha]_D = +156.8$ (*c* 0.19, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1′*E*,2*S*,3*R*,4*S*,5*R*)

$C_{22}H_{24}NO_5I$
(1′*E*,2*S*,3*R*,4*S*,5*R*) 3-Benzyloxy-4-acetyloxy-5-iodomethyl tetrahydrofuran-2-carbaldehyde *O*-benzyl oxime

Vikas Kumar, Harsh Mohan Gauniyal and Arun K. Shaw*

Tetrahedron: Asymmetry *18 (2007) 2069*



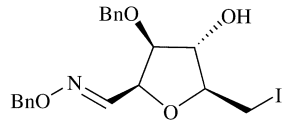
$[\alpha]_D = +141.25$ (c 0.16, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1′*Z*,2*S*,3*R*,4*S*,5*R*)

$C_{20}H_{22}NO_4I$

(1′*Z*,2*S*,3*R*,4*S*,5*R*) 3-Benzyloxy-4-hydroxy-5-iodomethyl tetrahydrofuran-2-carbaldehyde *O*-benzyl oxime

Vikas Kumar, Harsh Mohan Gauniyal and Arun K. Shaw*

Tetrahedron: Asymmetry *18 (2007) 2069*



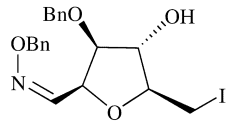
$[\alpha]_D = -7.5$ (c 0.16, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1′*E*,2*S*,3*R*,4*S*,5*S*)

$C_{20}H_{22}NO_4I$

(1′*E*,2*S*,3*R*,4*S*,5*S*) 3-Benzyloxy-4-hydroxy-5-iodomethyl tetrahydrofuran-2-carbaldehyde *O*-benzyl oxime

Vikas Kumar, Harsh Mohan Gauniyal and Arun K. Shaw*

Tetrahedron: Asymmetry *18 (2007) 2069*



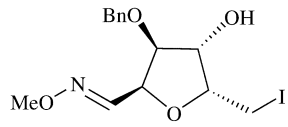
$[\alpha]_D = +114.0$ (c 0.05, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1′*Z*,2*S*,3*R*,4*S*,5*S*)

$C_{20}H_{22}NO_4I$

(1′*Z*,2*S*,3*R*,4*S*,5*S*) 3-Benzyloxy-4-hydroxy-5-iodomethyl tetrahydrofuran-2-carbaldehyde *O*-benzyl oxime

Vikas Kumar, Harsh Mohan Gauniyal and Arun K. Shaw*

Tetrahedron: Asymmetry *18 (2007) 2069*



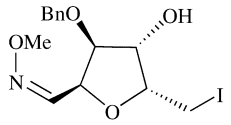
$[\alpha]_D = +60.0$ (c 0.28, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1′*E*,2*S*,3*R*,4*S*,5*R*)

$C_{14}H_{18}NO_4I$

(1′*E*,2*S*,3*R*,4*S*,5*R*)-3-Benzyloxy-4-hydroxy-5-iodomethyl tetrahydrofuran-2-carbaldehyde *O*-methyl oxime

Vikas Kumar, Harsh Mohan Gauniyal and Arun K. Shaw*

Tetrahedron: Asymmetry *18 (2007) 2069*



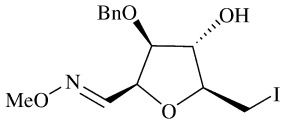
$[\alpha]_D = +69.8$ (*c* 0.41, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1′*Z*,2*S*,3*R*,4*S*,5*R*)

$C_{14}H_{18}NO_4I$

(1′*Z*,2*S*,3*R*,4*S*,5*R*)-3-Benzyloxy-4-hydroxy-5-iodomethyl tetrahydrofuran-2-carbaldehyde *O*-methyl oxime

Vikas Kumar, Harsh Mohan Gauniyal and Arun K. Shaw*

Tetrahedron: Asymmetry *18 (2007) 2069*



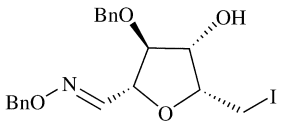
$[\alpha]_D = -11.1$ (*c* 0.18, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1′*E*,2*S*,3*R*,4*S*,5*S*)

$C_{14}H_{18}NO_4I$

(1′*E*,2*S*,3*R*,4*S*,5*S*)-3-Benzyloxy-4-hydroxy-5-iodomethyl tetrahydrofuran-2-carbaldehyde *O*-methyl oxime

Vikas Kumar, Harsh Mohan Gauniyal and Arun K. Shaw*

Tetrahedron: Asymmetry *18 (2007) 2069*



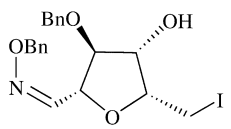
$[\alpha]_D = +61.9$ (*c* 0.36, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1′*E*,2*R*,3*R*,4*S*,5*R*)

$C_{20}H_{22}NO_4I$

(1′*E*,2*R*,3*R*,4*S*,5*R*) 3-Benzyloxy-4-hydroxy-5-iodomethyl tetrahydrofuran-2-carbaldehyde *O*-benzyl oxime

Vikas Kumar, Harsh Mohan Gauniyal and Arun K. Shaw*

Tetrahedron: Asymmetry *18 (2007) 2069*



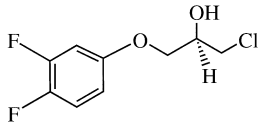
$[\alpha]_D = -47.3$ (*c* 0.26, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1′*Z*,2*R*,3*R*,4*S*,5*R*)

$C_{20}H_{22}NO_4I$

(1′*Z*,2*R*,3*R*,4*S*,5*R*) 3-Benzyloxy-4-hydroxy-5-iodomethyl tetrahydrofuran-2-carbaldehyde *O*-benzyl oxime

Manpreet Singh and Uttam Chand Banerjee*

Tetrahedron: Asymmetry *18 (2007) 2079*



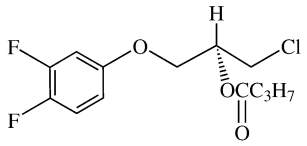
$C_9H_9ClF_2O_2$

(*R*)-1-Chloro-3-(3,4-difluorophenoxy)-propan-2-ol

$[\alpha]_D^{22} = -1.9$ (*c* 1.14, $CHCl_3$)
Source of chirality: Enzymatic transesterification
Absolute configuration: (*R*)

Manpreet Singh and Uttam Chand Banerjee*

Tetrahedron: Asymmetry *18 (2007) 2079*



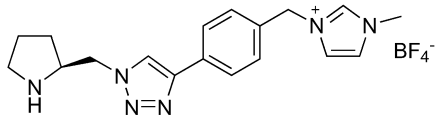
$C_{13}H_{15}ClF_2O_3$

(*S*)-1-Chloromethyl-2-(3,4-difluorophenoxy)-ethyl butyrate

$[\alpha]_D^{22} = +18.9$ (*c* 1, $CHCl_3$)
Source of chirality: Enzymatic transesterification
Absolute configuration: (*S*)

Lu-Yong Wu, Ze-Yi Yan, Yong-Xin Xie, Yan-Ning Niu and Yong-Min Liang*

Tetrahedron: Asymmetry *18 (2007) 2086*



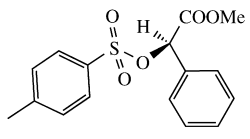
$C_{18}H_{23}BF_4N_6$

(*S*)-1-Methyl-3-(4-(1-(pyrrolidin-2-ylmethyl)-1,2,3-triazol-4-yl)benzyl)-imidazolium tetrafluoroborate

$[\alpha]_D^{20} = +6$ (*c* 1.0, H_2O)
Source of chirality: L-proline
Absolute configuration: (*S*)

Franciszek Herold,* Maciej Dawidowski, Irena Wolska, Andrzej Chodkowski, Jerzy Kleps, Jadwiga Turło and Andrzej Zimniak

Tetrahedron: Asymmetry *18 (2007) 2091*



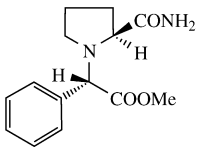
$C_{16}H_{16}O_5S$

(*R*)-(−)-2-(4-Toluenesulfonyloxy)-phenylacetic acid methyl ester

$[\alpha]_D = -63.3$ (*c* 2, $CHCl_3$)
Source of chirality: (−)-methyl-(*R*)-α-hydroxyphenyl acetate
Absolute configuration: (α*R*)

Franciszek Herold,* Maciej Dawidowski, Irena Wolska,
Andrzej Chodkowski, Jerzy Kleps, Jadwiga Turło and Andrzej Zimniak

Tetrahedron: Asymmetry *18 (2007) 2091*

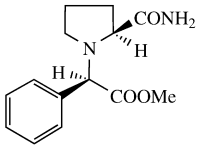


$[\alpha]_D = +29.7$ (*c* 2, MeOH)
Source of chirality: (*R*)-(−)-2-(4-toluenesulfonyloxy)-phenylacetic acid methyl ester (*S*)-prolineamide
Absolute configuration: (2*S*,α*S*)

$C_{14}H_{18}N_2O_3$
(2*S*,α*S*)-α-(2-Carbamoylpyrrolidinyl)-α-phenylacetic acid methyl ester

Franciszek Herold,* Maciej Dawidowski, Irena Wolska,
Andrzej Chodkowski, Jerzy Kleps, Jadwiga Turło and Andrzej Zimniak

Tetrahedron: Asymmetry *18 (2007) 2091*

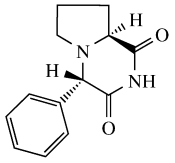


$[\alpha]_D = -116.4$ (*c* 2, MeOH)
Source of chirality: (*S*)-(+)-2-(4-toluenesulfonyloxy)-phenylacetic acid methyl ester (*S*)-prolineamide
Absolute configuration: (2*S*,α*R*)

$C_{14}H_{18}N_2O_3$
(2*S*,α*R*)-α-(2-Carbamoylpyrrolidinyl)-α-phenylacetic acid methyl ester

Franciszek Herold,* Maciej Dawidowski, Irena Wolska,
Andrzej Chodkowski, Jerzy Kleps, Jadwiga Turło and Andrzej Zimniak

Tetrahedron: Asymmetry *18 (2007) 2091*

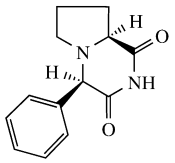


$[\alpha]_D = -138.15$ (*c* 2, $CHCl_3$)
Source of chirality: (2*S*,α*S*)-α-(2-carbamoylpyrrolidin-yl)-α-phenylacetic acid methyl ester
Absolute configuration: (4*S*,8a*S*)

$C_{13}H_{14}N_2O_2$
(4*S*,8a*S*)-4-Phenyl-perhydropyrrole[1,2-*a*]pyrazine-1,3-dione

Franciszek Herold,* Maciej Dawidowski, Irena Wolska,
Andrzej Chodkowski, Jerzy Kleps, Jadwiga Turło and Andrzej Zimniak

Tetrahedron: Asymmetry *18 (2007) 2091*

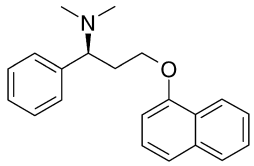


$[\alpha]_D = -138.5$ (*c* 2, $CHCl_3$)
Source of chirality: (2*S*,α*R*)-α-(2-carbamoylpyrrolidin-yl)-α-phenylacetic acid methyl ester
Absolute configuration: (4*R*,8a*S*)

$C_{13}H_{14}N_2O_2$
(4*R*,8a*S*)-4-Phenyl-perhydropyrrole[1,2-*a*]pyrazine-1,3-dione

Shafi A. Siddiqui and Kumar V. Srinivasan*

Tetrahedron: Asymmetry *18 (2007) 2099*



$C_{21}H_{23}NO$

(*S*)-*N*,*N*-Dimethyl-3-(naphthalen-1-yloxy)-1-phenylpropan-1-amine

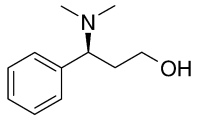
$[\alpha]_D^{25} = +64.2$ (*c* 0.3, $CHCl_3$)

Source of chirality: Sharpless asymmetric dihydroxylation

Absolute configuration: (*S*)

Shafi A. Siddiqui and Kumar V. Srinivasan*

Tetrahedron: Asymmetry *18 (2007) 2099*



$C_{11}H_{17}NO$

(*S*)-3-(*N*,*N*-Dimethylamino)-3-phenylpropan-1-ol

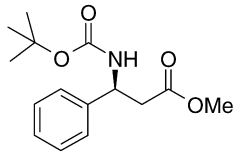
$[\alpha]_D^{25} = +39.2$ (*c* 0.6, $CHCl_3$)

Source of chirality: Sharpless asymmetric dihydroxylation

Absolute configuration: (*S*)

Shafi A. Siddiqui and Kumar V. Srinivasan*

Tetrahedron: Asymmetry *18 (2007) 2099*



$C_{15}H_{21}NO_4$

tert-Butyl (*S*)-2-(methoxycarbonyl)-1-phenylethylcarbamate

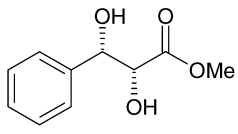
$[\alpha]_D^{25} = -31.5$ (*c* 1.31, CH_3COCH_3)

Source of chirality: Sharpless asymmetric dihydroxylation

Absolute configuration: (*S*)

Shafi A. Siddiqui and Kumar V. Srinivasan*

Tetrahedron: Asymmetry *18 (2007) 2099*



$C_{10}H_{12}O_4$

(2*R*,3*S*)-Methyl 2,3-dihydroxy-3-phenylpropanoate **5**

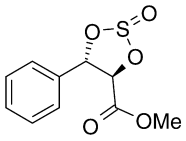
$[\alpha]_D^{25} = +3.5$ (*c* 1.19, EtOH)

Source of chirality: Sharpless asymmetric dihydroxylation

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

Shafi A. Siddiqui and Kumar V. Srinivasan*

Tetrahedron: Asymmetry *18 (2007) 2099*



$C_{10}H_{10}O_5S$

Methyl (4*R*,5*S*)-5-phenyl-1,3,2-dioxathiolane-4-carboxylate *S*-oxide

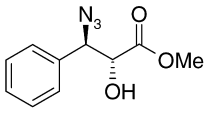
$[\alpha]_D^{25} = -92.3$ (*c* 1.1, CH_2Cl_2)

Source of chirality: Sharpless asymmetric dihydroxylation

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

Shafi A. Siddiqui and Kumar V. Srinivasan*

Tetrahedron: Asymmetry *18 (2007) 2099*



$C_{10}H_{11}N_3O_3$

Methyl (2*R*,3*R*)-3-azido-2-hydroxy-3-phenylpropanoate

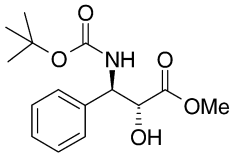
$[\alpha]_D^{25} = -60.0$ (*c* 4.44, EtOH)

Source of chirality: Sharpless asymmetric dihydroxylation

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

Shafi A. Siddiqui and Kumar V. Srinivasan*

Tetrahedron: Asymmetry *18 (2007) 2099*



$C_{15}H_{21}NO_5$

tert-Butyl (1*R*,2*R*)-2-(methoxycarbonyl)-2-hydroxy-1-phenylethylcarbamate

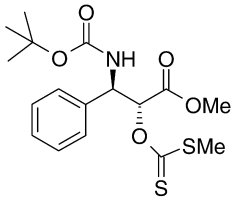
$[\alpha]_D^{25} = -78.4$ (*c* 1.91, CH_3COCH_3)

Source of chirality: Sharpless asymmetric dihydroxylation

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

Shafi A. Siddiqui and Kumar V. Srinivasan*

Tetrahedron: Asymmetry *18 (2007) 2099*



$C_{17}H_{23}NO_5S_2$

tert-Butyl (1*R*,2*R*)-2-(methoxycarbonyl)-2-*O*-(*S*-methyldithiocarbonate)-1-phenylethylcarbamate

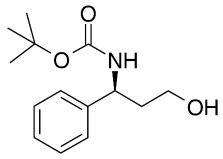
$[\alpha]_D^{25} = -47.3$ (*c* 1.13, CH_3COCH_3)

Source of chirality: Sharpless asymmetric dihydroxylation

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

Shafi A. Siddiqui and Kumar V. Srinivasan*

Tetrahedron: Asymmetry *18 (2007) 2099*



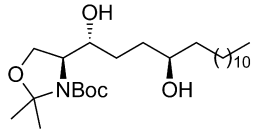
$C_{14}H_{21}NO_3$

tert-Butyl (*S*)-3-hydroxy-1-phenylpropylcarbamate

$[\alpha]_D^{25} = -53.0$ (*c* 1.27, CH_3COCH_3)
Source of chirality: Sharpless asymmetric dihydroxylation
Absolute configuration: (*S*)

Ken-ichi Fuhshuku and Kenji Mori*

Tetrahedron: Asymmetry *18 (2007) 2104*



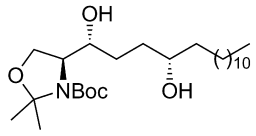
$C_{26}H_{51}NO_5$

tert-Butyl (4*S*,1′*R*,4′*R*)-4-(1′,4′-dihydroxyhexadecyl)-2,2-dimethyl-3-oxazolidinecarboxylate

$[\alpha]_D^{26} = -16.8$ (*c* 1.02, $CHCl_3$)
Source of chirality: (*S*)-serine and lipase-catalyzed asymmetric acetylation
Absolute configuration: (4*S*,1′*R*,4′*R*)

Ken-ichi Fuhshuku and Kenji Mori*

Tetrahedron: Asymmetry *18 (2007) 2104*



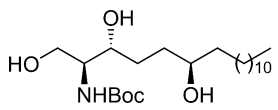
$C_{26}H_{51}NO_5$

tert-Butyl (4*S*,1′*R*,4′*S*)-4-(1′,4′-dihydroxyhexadecyl)-2,2-dimethyl-3-oxazolidinecarboxylate

$[\alpha]_D^{26} = -15.1$ (*c* 1.03, $CHCl_3$)
Source of chirality: (*S*)-serine and lipase-catalyzed asymmetric acetylation
Absolute configuration: (4*S*,1′*R*,4′*S*)

Ken-ichi Fuhshuku and Kenji Mori*

Tetrahedron: Asymmetry *18 (2007) 2104*



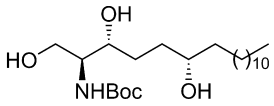
$C_{23}H_{47}NO_5$

(2*S*,3*R*,6*R*)-2-*tert*-Butoxycarbamidoctadecane-1,3,6-triol

$[\alpha]_D^{26} = +3.3$ (*c* 0.53, $CHCl_3$)
Source of chirality: (*S*)-serine and lipase-catalyzed asymmetric acetylation
Absolute configuration: (2*S*,3*R*,6*R*)

Ken-ichi Fuhshuku and Kenji Mori*

Tetrahedron: Asymmetry *18 (2007) 2104*



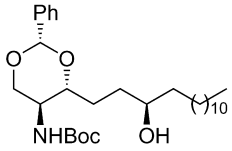
$C_{23}H_{47}NO_5$

(2*S*,3*R*,6*S*)-2-*tert*-Butoxycarbamidoctadecane-1,3,6-triol

$[\alpha]_D^{26} = +5.8$ (c 0.53, $CHCl_3$)
Source of chirality: (*S*)-serine and lipase-catalyzed asymmetric acetylation
Absolute configuration: (2*S*,3*R*,6*S*)

Ken-ichi Fuhshuku and Kenji Mori*

Tetrahedron: Asymmetry *18 (2007) 2104*



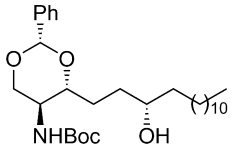
$C_{30}H_{51}NO_5$

(2*S*,4*R*,5*S*,3′*R*)-5-*tert*-Butoxycarbamido-4-(3′-hydroxypentadecyl)-2-phenly-1,3-dioxacyclohexane

$[\alpha]_D^{26} = +25.0$ (c 0.54, $CHCl_3$)
Source of chirality: (*S*)-serine and lipase-catalyzed asymmetric acetylation
Absolute configuration: (2*S*,4*R*,5*S*,3′*R*)

Ken-ichi Fuhshuku and Kenji Mori*

Tetrahedron: Asymmetry *18 (2007) 2104*



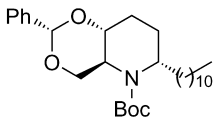
$C_{30}H_{51}NO_5$

(2*S*,4*R*,5*S*,3′*S*)-5-*tert*-Butoxycarbamido-4-(3′-hydroxypentadecyl)-2-phenly-1,3-dioxacyclohexane

$[\alpha]_D^{26} = +19.7$ (c 0.54, $CHCl_3$)
Source of chirality: (*S*)-serine and lipase-catalyzed asymmetric acetylation
Absolute configuration: (2*S*,4*R*,5*S*,3′*S*)

Ken-ichi Fuhshuku and Kenji Mori*

Tetrahedron: Asymmetry *18 (2007) 2104*



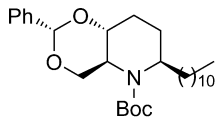
$C_{30}H_{49}NO_4$

tert-Butyl (1*S*,2*S*,4*R*,6*S*)-6-dodecyl-2-phenylhexahydro[1,3]dioxino[5,4-*b*]pyridine-5-carboxylate

$[\alpha]_D^{26} = -24.3$ (c 0.54, $CHCl_3$)
Source of chirality: (*S*)-serine and lipase-catalyzed asymmetric acetylation
Absolute configuration: (1*S*,2*S*,4*R*,6*S*)

Ken-ichi Fuhshuku and Kenji Mori*

Tetrahedron: Asymmetry *18 (2007) 2104*

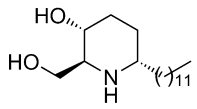


$[\alpha]_D^{26} = -24.3$ (*c* 0.54, $CHCl_3$)
Source of chirality: (*S*)-serine and lipase-catalyzed asymmetric acetylation
Absolute configuration: (1*S*,2*S*,4*R*,6*R*)

$C_{30}H_{49}NO_4$
tert-Butyl (1*S*,2*S*,4*R*,6*R*)-6-dodecyl-2-phenylhexahydro[1,3]dioxino[5,4-*b*]pyridine-5-carboxylate

Ken-ichi Fuhshuku and Kenji Mori*

Tetrahedron: Asymmetry *18 (2007) 2104*

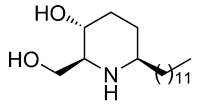


$[\alpha]_D^{24} = -14.3$ (*c* 0.54, $CHCl_3$)
Source of chirality: (*S*)-serine and lipase-catalyzed asymmetric acetylation
Absolute configuration: (2*S*,3*R*,6*S*)

$C_{18}H_{37}NO_2$
(−)-Deoxoprosopinine (2*S*,3*R*,6*S*)-6-dodecyl-2-hydroxymethylpiperidin-3-ol

Ken-ichi Fuhshuku and Kenji Mori*

Tetrahedron: Asymmetry *18 (2007) 2104*

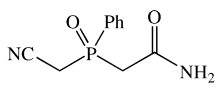


$[\alpha]_D^{24} = -14.2$ (*c* 0.58, $CHCl_3$)
Source of chirality: (*S*)-serine and lipase-catalyzed asymmetric acetylation
Absolute configuration: (2*S*,3*R*,6*R*)

$C_{18}H_{37}NO_2$
(−)-Deoxoprosophylline (2*S*,3*R*,6*R*)-6-dodecyl-2-hydroxymethylpiperidin-3-ol

Piotr Kiełbasiński,* Michał Rachwalski, Małgorzata Kwiatkowska, Marian Mikołajczyk, Wanda M. Wieczorek, Małgorzata Szyrej, Lesław Sieroń and Floris P. J. T. Rutjes*

Tetrahedron: Asymmetry *18 (2007) 2108*

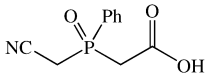


Ee >99%
$[\alpha]_D = +7.2$ (*c* 1, $D_2O + CD_3COCD_3$)
Source of chirality: enzymatic desymmetrisation
Absolute configuration: (*S*) (X-ray)

$C_{10}H_{11}N_2O_2P$
Cyanomethylphenylphosphinylacetamide

Piotr Kiełbasiński,* Michał Rachwalski, Małgorzata Kwiatkowska, Marian Mikołajczyk, Wanda M. Wieczorek, Małgorzata Szyrej, Lesław Sieroń and Floris P. J. T. Rutjes*

Tetrahedron: Asymmetry *18 (2007) 2108*



$C_{10}H_{10}NO_3P$

Cyanomethylphenylphosphinylacetic acid

Ee = 70%

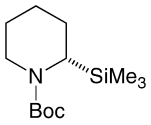
$[\alpha]_D = -2.0$ (*c* 1, $D_2O + CD_3COCD_3$)

Source of chirality: enzymatic desymmetrisation

Absolute configuration: (*S*) (comparative CD analysis)

Iain Coldham,* Peter O'Brien,* Jignesh J. Patel, Sophie Raimbault, Adam J. Sanderson, Darren Stead and David T. E. Whittaker

Tetrahedron: Asymmetry *18 (2007) 2113*



$C_{13}H_{27}NO_2Si$

(*S*)-*N*-*tert*-Butoxycarbonyl-2-trimethylsilylpiperidine

$[\alpha]_D^{24} = +17.5$ (*c* 0.7, $CHCl_3$)

Source of chirality: asymmetric deprotonation

Absolute configuration: (*S*)

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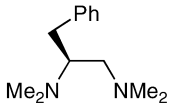

$C_{13}H_{23}N_2$

(*S*)-*N*,*N*,*N*′,*N*′-Tetramethyl-3-phenylpropane-1,2-diamine

$[\alpha]_D^{24} = +50.0$ (*c* 1.6, $CHCl_3$)

Source of chirality: L-phenylalanine

Absolute configuration: (*S*)

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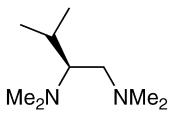

$C_9H_{23}N_2$

(*S*)-*N*,*N*,*N*′,*N*′-Tetramethyl-1,2-diamino-3-methylbutane

$[\alpha]_D^{24} = +28.0$ (*c* 2.5, $CHCl_3$)

Source of chirality: L-valine

Absolute configuration: (*S*)

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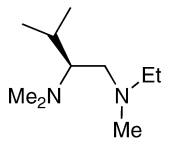

$[\alpha]_D^{24} = +26.0$ (*c* 3.1, $CHCl_3$)
Source of chirality: L-valine
Absolute configuration: (*S*)

$C_{10}H_{25}N_2$
(*S*)-N^1-Ethyl-*N*,*N*′,*N*′-trimethyl-3-methylbutane-1,2-diamine

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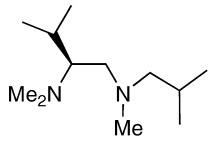

$[\alpha]_D^{24} = +11.8$ (*c* 2.8, $CHCl_3$)
Source of chirality: L-valine
Absolute configuration: (*S*)

$C_{12}H_{28}N_2$
(*S*)-N^1-Isobutyl-*N*,*N*′,*N*′-trimethyl-3-methylbutane-1,2-diamine

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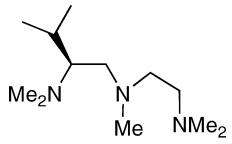

$[\alpha]_D^{24} = +23.8$ (*c* 2.2, $CHCl_3$)
Source of chirality: L-valine
Absolute configuration: (*S*)

$C_{12}H_{30}N_3$
(*S*)-N^1-(2-Dimethylaminoethyl)-*N*,*N*′,*N*′-trimethyl-3-methylbutane-1,2-diamine

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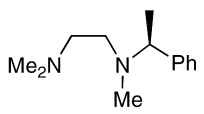

$[\alpha]_D^{24} = -33.1$ (*c* 2.6, $CHCl_3$)
Source of chirality: (*S*)-1-phenylethylamine
Absolute configuration: (*S*)

$C_{13}H_{22}N_2$
(*S*)-*N*,*N*,*N*′-Trimethyl-*N*′-(1-phenylethyl)ethane-1,2-diamine

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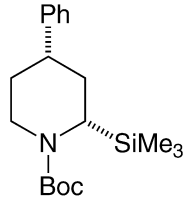

$C_{19}H_{32}NO_2Si$

(*S*,*S*)-*N*-*tert*-Butoxycarbonyl-4-phenyl-2-trimethylsilylpiperidine

$[\alpha]_D^{24} = +4.6$ (*c* 1.1, $CHCl_3$)
Source of chirality: asymmetric deprotonation
Absolute configuration: (*S*,*S*)

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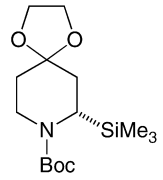

$C_{15}H_{30}NO_4Si$

(*S*)-*N*-*tert*-Butoxycarbonyl-4,4-dioxolanyl-2-trimethylsilylpiperidine

$[\alpha]_D^{24} = -0.5$ (*c* 1.0, $CHCl_3$)
Source of chirality: asymmetric deprotonation
Absolute configuration: (*S*)