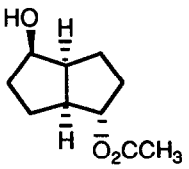
R. Seemayer and M.P. Schneider

Tetrahedron: Asymmetry **1992,** *3*, 1123



$C_8H_{12}O_5$

1,4:3,6-Dianhydro-D-glucitol-2-acetate

D.e. = ≥ 99% [by glc on OV 17 capillary column]

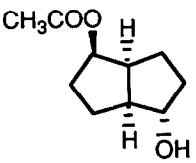
$[\alpha]_D^{20}$ = + 77.1 (c = 1.12, ethyl acetate)

Source of chirality: chiral pool (1,4:3,6-Dianhydro-D-glucitol)
Source of diastereoselectivity: enzymatic hydrolysis or alcoholysis

Regioselectivity: assigned by optical rotation and by 2D-COSY-NMR.

R. Seemayer and M.P. Schneider

Tetrahedron: Asymmetry **1992,** *3*, 1123



$C_8H_{12}O_5$

1,4:3,6-Dianhydro-D-glucitol-5-acetate

D.e. = ≥ 99% [by glc on OV 17 capillary column]

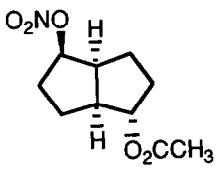
$[\alpha]_D^{20}$ = + 117.9 (c = 1.36, ethyl acetate)

Source of chirality: chiral pool (1,4:3,6-Dianhydro-D-glucitol)
Source of diastereoselectivity: enzymatic esterification

Regioselectivity: assigned by optical rotation and by 2D-COSY-NMR.

R. Seemayer and M.P. Schneider

Tetrahedron: Asymmetry **1992,** *3*, 1123



$C_8H_{11}NO_7$

2-O-Acetyl-1,4:3,6-dianhydro-D-glucitol-5-nitrate

D.e. = ≥ 99% [by glc on OV 17 capillary column]

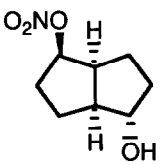
$[\alpha]_D^{20}$ = + 163.0 (c = 1.00, ethyl acetate)

Source of chirality: chiral pool (1,4:3,6-Dianhydro-D-glucitol)

Regioselectivity: assigned by optical rotation and by 2D-COSY-NMR.

R. Seemayer and M.P. Schneider

Tetrahedron: Asymmetry **1992,** *3*, 1123



$C_6H_9NO_6$

1,4:3,6-Dianhydro-D-glucitol-5-nitrate

D.e. = ≥ 99% [by glc on OV 17 capillary column]

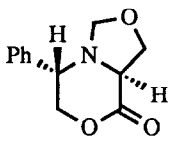
$[\alpha]_D^{20}$ = + 181.0 (c = 0.99, ethyl acetate)

Source of chirality: chiral pool (1,4:3,6-Dianhydro-D-glucitol)

Regioselectivity: assigned by optical rotation and by 2D-COSY-NMR.

L. M. Harwood, J. Macro, D. Watkin, C. E. Williams and L. F. Wong

Tetrahedron: Asymmetry **1992,** *3*, 1127



$[\alpha]_D^{20}$ –5.3 (c 1.0, $CHCl_3$)

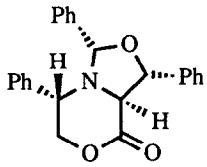
Absolute configuration: 2(*S*), 6(*S*)

Source of chirality: (*S*)–phenylglycinol, ee > 99%

2(*S*),6(*S*)–2–phenyl–1–aza–4,8–dioxa[4.3.0^{1,6}]bicyclononan–5–one

L. M. Harwood, J. Macro, D. Watkin, C. E. Williams and L. F. Wong

Tetrahedron: Asymmetry **1992,** *3*, 1127



$[\alpha]_D^{20}$ –87.5 (c 1.0, $CHCl_3$)

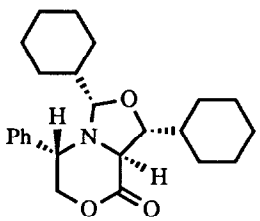
Absolute configuration: 2(*S*), 6(*S*), 7(*R*), 9(*S*)

Source of chirality: (*S*)–phenylglycinol, ee > 99%

2(*S*),6(*S*), 7(*R*), 9(*S*)–2,7,9–triphenyl–1–aza–4,8–dioxa[4.3.0^{1,6}]bicyclononan–5–one

L. M. Harwood, J. Macro, D. Watkin, C. E. Williams and L. F. Wong

Tetrahedron: Asymmetry **1992,** *3*, 1127



$[\alpha]_D^{12}$ –26.8 (c 0.62, $CHCl_3$)

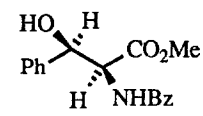
Absolute configuration: 2(*S*), 6(*S*), 7(*R*), 9(*S*)

Source of chirality: (*S*)–phenylglycinol, ee > 99%

2(*S*),6(*S*), 7(*R*), 9(*S*)–7,9–bis(cyclohexyl)–2–phenyl–1–aza–4,8–dioxa[4.3.0^{1,6}]bicyclononan–5–one

L. M. Harwood, J. Macro, D. Watkin, C. E. Williams and L. F. Wong

Tetrahedron: Asymmetry **1992,** *3*, 1127



$[\alpha]_D^{30}$ –10.4 (c 1.5, MeOH)

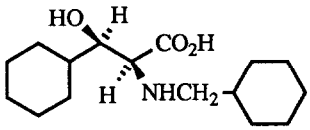
Absolute configuration: 2(*S*), 3(*R*)

Source of chirality: (*S*)–phenylglycinol, ee > 99%

N–benzyl 2(*S*),3(*R*)–3–hydroxy–3–phenylalanine methyl ester

L. M. Harwood, J. Macro, D. Watkin, C. E. Williams and L. F. Wong

Tetrahedron: Asymmetry **1992,** *3*, 1127



$[\alpha]_D^{21}$ –8.9 (c 1.05, MeOH)

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

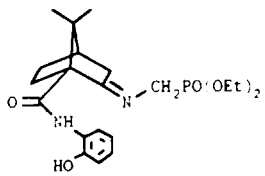
Source of chirality: (*S*)–phenylglycinol, ee > 99%

N–cyclohexylmethyl 2(*S*),3(*R*)–3–hydroxy–3–cyclohexylalanine

---

G. Jommi, G. Miglierini, R. Pagliarin, G. Sello, M. Sisti

Tetrahedron: Asymmetry **1992,** *3*, 1131



E.e. = 100.0% [by correlation with (+)-ketopinic acid]
$[\alpha]_D^{20}$ = + 39.8 (c = 3.2, $CHCl_3$)
Source of chirality: (+)-ketopinic acid
Absolute configuration 1S,4S

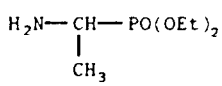
$C_{21}H_{31}N_2O_5P$

diethyl(1S,4S)-{[1-N-(2-hydroxyphenyl)-carbamoyl-7,7-dimethylbicyclo[2.2.1]-E-hept-2-ylidenamino]methyl}phosphonate

---

G. Jommi, G. Miglierini, R. Pagliarin, G. Sello, M. Sisti

Tetrahedron: Asymmetry **1992,** *3*, 1131



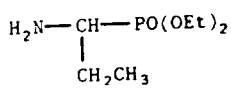
E.e. = 50.0% [by comparison of optical rotation with that reported]
$[\alpha]_D^{20}$ = + 7.30 (c = 2.6, $CHCl_3$)
Source of chirality: asymmetric alkylation
Absolute configuration: S (assigned by comparison with literature data)

$C_6H_{16}NO_3P$

Diethyl (S)-(1-aminoethyl)phosphonate

G. Jommi, G. Miglierini, R. Pagliarin, G. Sello, M. Sisti

Tetrahedron: Asymmetry **1992,** *3*, 1131



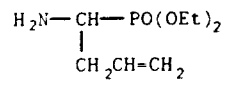
E.e. = 82.0% [by comparison of optical rotation with that reported]
$[\alpha]_D^{20}$ = + 5.89 (c = 2.3, $CHCl_3$)
Source of chirality: asymmetric alkylation
Absolute configuration: S (assigned by comparison with literature data)

$C_7H_{18}NO_3P$

Diethyl (S)-(1-aminopropyl)phosphonate

G. Jommi, G. Miglierini, R. Pagliarin, G. Sello, M. Sisti

Tetrahedron: Asymmetry **1992,** *3*, 1131



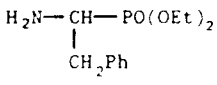
$C_8H_{18}NO_3P$

E.e. = 96.7% [by comparison of optical rotation with that reported]
$[\alpha]_D^{20}$ = + 4.17 (c = 1.8, $CHCl_3$)
Source of chirality: asymmetric alkylation
Absolute configuration: S (assigned by comparison with literature data)

Diethyl (S)-(1-amino-3-butenyl) phosphonate

G. Jommi, G. Miglierini, R. Pagliarin, G. Sello, M. Sisti

Tetrahedron: Asymmetry **1992,** *3*, 1131



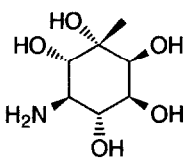
$C_{12}H_{20}NO_3P$

E.e. = 95.2% [by comparison of optical rotation with that reported]
$[\alpha]_D^{20}$ = + 17.20 (c = 1.8, $CHCl_3$)
Source of chirality: asymmetric alkylation
Absolute configuration: S (assigned by comparison with literature data)

Diethyl (S)-(1-amino-2-phenylethyl) phosphonate

H. A. J. Carless and S. S. Malik

Tetrahedron: Asymmetry **1992,** *3*, 1135

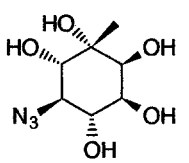


$C_7H_{15}NO_5$
1L-1-*C*-Methyl-3-amino-3-deoxy-*chiro*-inositol

E.e. = >98%
$[\alpha]_D^{20}$ = -10.5 (c 1.3, MeOH)
Source of chirality: microbial oxidation of toluene
Absolute configuration 1S,2S,3R,4R,5S,6S

H. A. J. Carless and S. S. Malik

Tetrahedron: Asymmetry **1992,** *3*, 1135

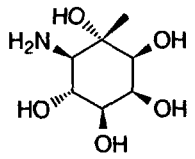


$C_7H_{13}N_3O_5$
1L-1-*C*-Methyl-3-azido-3-deoxy-*chiro*-inositol

E.e. = >98%
$[\alpha]_D^{20}$ = -15.1 (c 0.6, MeOH)
Source of chirality: microbial oxidation of toluene
Absolute configuration 1S,2S,3R,4R,5S,6S

H. A. J. Carless and S. S. Malik

Tetrahedron: Asymmetry **1992,** *3*, 1135



E.e. = >98%

$[\alpha]_D^{25}$ = -3.1 (c 0.25, MeOH)

$C_7H_{15}NO_5$

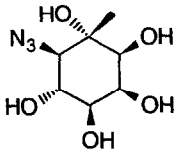
1D-4-*C*-Methyl-5-amino-5-deoxy-*myo*-inositol

Source of chirality: microbial oxidation of toluene

Absolute configuration 1S,2S,3S,4S,5R,6R

H. A. J. Carless and S. S. Malik

Tetrahedron: Asymmetry **1992,** *3*, 1135



E.e. = >98%

$[\alpha]_D^{25}$ = -10.6 (c 0.25, MeOH)

$C_7H_{13}N_3O_5$

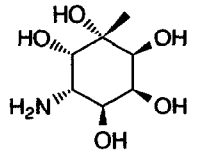
1D-4-*C*-Methyl-5-azido-5-deoxy-*myo*-inositol

Source of chirality: microbial oxidation of toluene

Absolute configuration 1S,2S,3S,4S,5R,6R

H. A. J. Carless and S. S. Malik

Tetrahedron: Asymmetry **1992,** *3*, 1135



E.e. = >98%

$[\alpha]_D^{20}$ = -11.4 (c 0.1, MeOH)

$C_7H_{15}NO_5$

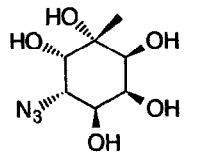
1L-1-*C*-Methyl-3-amino-3-deoxy-*neo*-inositol

Source of chirality: microbial oxidation of toluene

Absolute configuration 1S,2S,3S,4S,5S,6S

H. A. J. Carless and S. S. Malik

Tetrahedron: Asymmetry **1992,** *3*, 1135



E.e. = >98%

$[\alpha]_D^{20}$ = -26 (c 0.15, MeOH)

$C_7H_{13}N_3O_5$

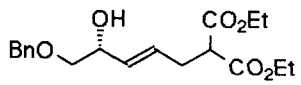
1L-1-*C*-Methyl-3-azido-3-deoxy-*neo*-inositol

Source of chirality: microbial oxidation of toluene

Absolute configuration 1S,2S,3S,4S,5S,6S

S-K. Kang, S-G. Kim and J-S. Lee

Tetrahedron: Asymmetry **1992,** *3*, 1139



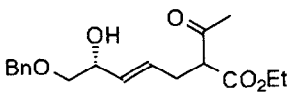
$[\alpha]_D^{25}$ -7.20 (*c* = 1.5, $CHCl_3$)
Source of chirality: natural
Absolute configuration: 4R

$C_{19}H_{26}O_6$

Diethyl 2-[*(2E,4R)*-5-benzyloxy-4-hydroxy-pentyl]malonate

S-K. Kang, S-G. Kim and J-S. Lee

Tetrahedron: Asymmetry **1992,** *3*, 1139



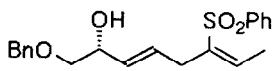
$[\alpha]_D^{25}$ -5.68 (*c* = 0.71, $CHCl_3$)
Source of chirality: natural
Absolute configuration: 4R

$C_{18}H_{24}O_4$

Ethyl 2-[*(2E,4R)*-5-benzyloxy-4-hydroxy-2-pentyl]acetoacetate

S-K. Kang, S-G. Kim and J-S. Lee

Tetrahedron: Asymmetry **1992,** *3*, 1139



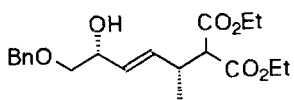
$[\alpha]_D^{25}$ -2.83 (*c* = 0.32, $CHCl_3$)
Source of chirality: natural
Absolute configuration: 2R

$C_{21}H_{24}O_4S$

(2R,3E,6E)-1-Benzyloxy-6-[((phenyl)sulfonyl]-3,6-octadien-2-ol

S-K. Kang, S-G. Kim and J-S. Lee

Tetrahedron: Asymmetry **1992,** *3*, 1139



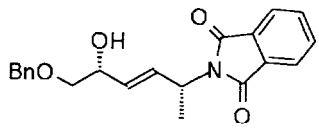
E.e. = >99%[nmr with $Eu(hfc)_3$]
$[\alpha]_D^{25}$ -7.62 (*c* = 0.32, $CHCl_3$)
Source of chirality: natural and asymm. synth.
Absolute configuration: 1S, 4R

$C_{20}H_{28}O_6$

Diethyl 2-[*(1S,2E,4R)*-5-benzyloxy-4-hydroxy-1-methyl-2-pentyl]malonate

S-K. Kang, S-G. Kim and J-S. Lee

Tetrahedron: Asymmetry **1992,** *3*, 1139



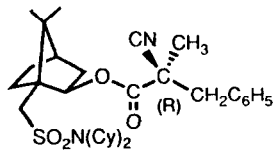
$C_{21}H_{21}O_4N$

E.e. = >99% [nmr with $Eu(hfc)_3$]
$[\alpha]_D^{25}$ -2.78 (*c* = 0.65, $CHCl_3$)
Source of chiraliry: natural and asymm. synth.
Absolute configuration: 2R, 5R

(2R,3E,5R)-1-Benzyloxy-5-phthalimido-3-hexen-2-ol

C. Cativiela, M. D. Diaz-de-Villegas, J. A. Galvez

Tetrahedron: Asymmetry **1992,** *3*, 1141

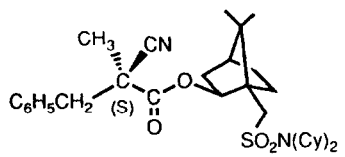


d.e.>95% by NMR
$[\alpha]_D^{20}$ - 62.8 (c = 1.56, $CHCl_3$)
Source of chirality : natural and diastereoselective methylation
Absolute configuration : 2R

$C_{33}H_{48}N_2O_4S$
(2R)-(1S,2R,4R)-10-dicyclohexylsulfamoylisobornyl-2-methyl-3-phenyl-2-cyanopropanoate

C. Cativiela, M. D. Diaz-de-Villegas, J. A. Galvez

Tetrahedron: Asymmetry **1992,** *3*, 1141

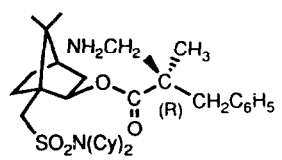


d.e.>95% by NMR
$[\alpha]_D^{20}$ + 62.3 (c = 1.50, $CHCl_3$)
Source of chirality : natural and diastereoselective methylation
Absolute configuration : 2S

$C_{33}H_{48}N_2O_4S$
(2S)-(1R,2S,4S)-10-dicyclohexylsulfamoylisobornyl-2-methyl-3-phenyl-2-cyanopropanoate

C. Cativiela, M. D. Diaz-de-Villegas, J. A. Galvez

Tetrahedron: Asymmetry **1992,** *3*, 1141

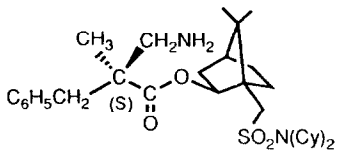


d.e.>95% by NMR
$[\alpha]_D^{20}$ - 30.6 (c = 0.87, $CHCl_3$)
Source of chirality : natural and diastereoselective methylation
Absolute configuration : 2R

$C_{33}H_{52}N_2O_4S$
(2R)-(1S,2R,4R)-10-dicyclohexylsulfamoylisobornyl-2-benzyl-2-methyl-3-aminopropanoate

C. Cativiela, M. D. Diaz-de-Villegas, J. A. Galvez

Tetrahedron: Asymmetry **1992,** *3*, 1141



d.e.>95% by NMR

$[\alpha]_D^{20}$ + 39.8 (c = 0.87, $CHCl_3$)

Source of chirality : natural and diastereoselective methylation

Absolute configuration : 2S

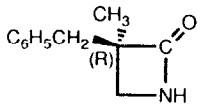
$C_{33}H_{52}N_2O_4S$

(2S)-(1R,2S,4S)-10-dicyclohexylsulfamoylisobornyl-2-benzyl-2-methyl-3-aminopropanoate

---

C. Cativiela, M. D. Diaz-de-Villegas, J. A. Galvez

Tetrahedron: Asymmetry **1992,** *3*, 1141



e.e.>95%

$[\alpha]_D^{20}$ - 43.3 (c = 0.30, $CHCl_3$)

Source of chirality : natural and diastereoselective methylation

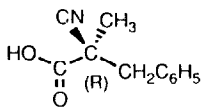
Absolute configuration : 3R

$C_{11}H_{13}NO$

(3R)-3-benzyl-3-methyl-2-azetidinone

C. Cativiela, M. D. Diaz-de-Villegas, J. A. Galvez

Tetrahedron: Asymmetry **1992,** *3*, 1141



e.e.>99%

$[\alpha]_D^{20}$ -27.1 (c = 2.5, $CHCl_3$)

Source of chirality : natural and diastereoselective methylation

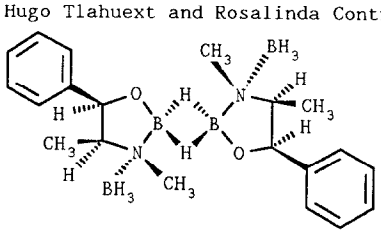
Absolute configuration : 2R

$C_{11}H_{11}NO_2$

(R) 2-methyl-3-phenyl-2-cyanopropanoic acid

Hugo Tlahuext and Rosalinda Contreras

Tetrahedron: Asymmetry **1992,** *3*, 1145



Source of chirality: (1R,2S)-(-)-ephedrine

Absolute configuration: 3S,4S,5R

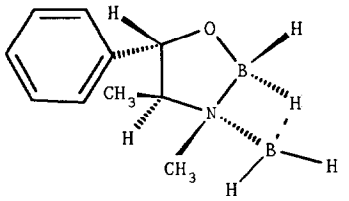
N-configuration obtained by ^{13}C NMR

$C_{20}H_{34}B_4N_2O_2$

dimer-cis-(3S,4S,5R)-3,4-dimethyl-5-phenyl-oxazaborolidine-borane.

Hugo Tlahuext and Rosalinda Contreras

Tetrahedron: Asymmetry **1992,** *3*, 1145



Source of chirality: (1S,2S)-(+)-pseudoephedrine

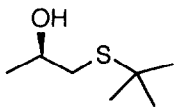
Absolute configuration: 3S,4S,5S

N-configuration obtained by ^{13}C NMR

trans-(3S,4S,5S)-3,4-dimethyl-5-phenyl-oxazaborolidine-borane.

U. Goergens and M. P. Schneider

Tetrahedron: Asymmetry **1992,** *3*, 1149



$C_7H_{16}OS$

1-t.butylthio-2-propanol

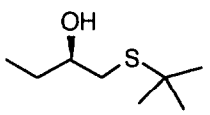
E.e. >96 % [by ^1H-NMR of the Mosher Ester]
$[\alpha]_D^{20}$ = - 40.9 (c = 0.92, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration *R*

U. Goergens and M.P. Schneider

Tetrahedron: Asymmetry **1992,** *3*, 1149



$C_8H_{18}OS$

1-t.butylthio-2-butanol

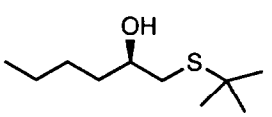
E.e. >96% [by ^1H-NMR of the Mosher Ester]
$[\alpha]_D^{20}$= - 40.0(c = 0.75, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration *R*
(assigned by chemical correlation to (*R*)- 1,2-Epoxybutane)

U. Goergens and M. P. Schneider

Tetrahedron: Asymmetry **1992,** *3*, 1149



$C_{10}H_{22}OS$

1-t.butylthio-2-hexanol

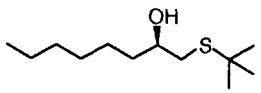
E.e. >96 % [by ^1H-NMR of the Mosher Ester]
$[\alpha]_D^{20}$ = -28.2 (c = 1.09, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: *R*
(Assigned by chemical correlation to (*R*)- 1,2-Epoxyhexane)

U. Goergens and M. P. Schneider

Tetrahedron: Asymmetry **1992,** *3*, 1149



$C_{12}H_{26}OS$

1-t.butylthio-2-octanol

E.e. = >96 % [by ^{1}H-NMR of the MosherEster]

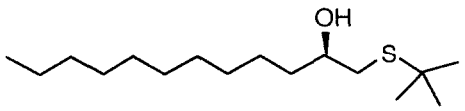
$[\alpha]_D^{20}$ = -23.9 (c = 0.82, $CHCl_3$)

Source of chirality: enzymatic hydrolysis

Absolute configuration *R*
(assigned by chemical correlation to (*R*)- 1,2-Epoxyoctane)

U. Goergens and M.P. Schneider

Tetrahedron: Asymmetry **1992,** *3*, 1149



$C_{16}H_{34}OS$

1-t.butylthio-2-dodecanol

E.e. >96% [by ^{1}H-NMR ot the Mosher Ester]

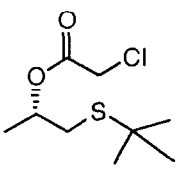
$[\alpha]_D^{20}$= - 17.4 (c = 0.80, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration *R*

U. Goergens and M. P. Schneider

Tetrahedron: Asymmetry **1992,** *3*, 1149



$C_9H_{17}ClO_2S$

1-(t.butylthiomethyl)-ethylchloracetate

E.e. = >96 % [by ^{1}H-NMR after transformation to the corresponding MTPA-Ester]

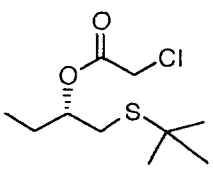
$[\alpha]_D^{20}$ = - 42.5 (c = 0.95, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration *S*

U. Goergens and M. P. Schneider

Tetrahedron: Asymmetry **1992,** *3*, 1149



$C_{10}H_{19}ClO_2S$

1-(t.butylthiomethyl)-propylchloracetate

E.e. = >96 % [by ^{1}H-NMR after transformation to the corresponding MTPA-Ester]

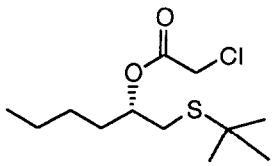
$[\alpha]_D^{20}$ = - 50.4 (c = 0.83, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration *S*

U. Goergens and M. P. Schneider

Tetrahedron: Asymmetry **1992,** *3*, 1149



$C_{12}H_{23}ClO_2S$

1-(t.butylthiomethyl)-pentylchloracetate

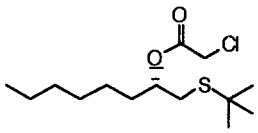
E.e. = >96 % [by ^{1}H-NMR after transformation to the corresponding MTPA-Ester]
$[\alpha]_D^{20}$ = - 37.3 (c = 0.96, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration *S*

U. Goergens and M. P. Schneider

Tetrahedron: Asymmetry **1992,** *3*, 1149



$C_{14}H_{27}ClO_2S$

1-(t.butylthiomethyl)-heptylchloracetate

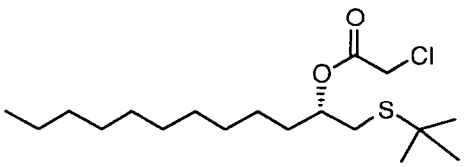
E.e. = >96 % [by ^{1}H-NMR after transformation to the corresponding MTPA-Ester]
$[\alpha]_D^{20}$ = -35.2 (c = 1.03, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: *S*
(assigned by chemical correlation to (*S*)- 2-Octanol)

U. Goergens and M. P. Schneider

Tetrahedron: Asymmetry **1992,** *3*, 1149



$C_{18}H_{35}ClO_2S$

1-(t.butylthiomethyl)-undecylchloracetate

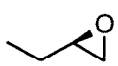
E.e. = >96 % [by ^{1}H-NMR after transformation to the corresponding MTPA-Ester]
$[\alpha]_D^{20}$ = -27.2 (c = 0.94, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: *S*
(assigned by chemical correlation to (*S*)- 2-Dodecanol)

Tetrahedron: Asymmetry **1992,** *3*, 1149

U. Goergens and M. P. Schneider



C_4H_8O

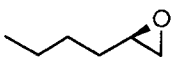
1,2-Epoxybutane

E.e. = >95 % [^{1}H-NMR in presence of chiral shift reagent]
$[\alpha]_D^{20}$ = +14.2 (c = 1.03, Et_2O)

Source of chirality: enzymatic resolution of a precursor
Absolute configuration *R*
(assigned on the basis of α_D)

Tetrahedron: Asymmetry **1992,** *3*, 1149

U. Goergens and M. P. Schneider



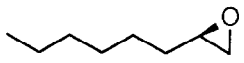
$C_6H_{12}O$
1,2-Epoxyhexane

E.e. = >95 % [^{1}H-NMR in presence of chiral shift reagent]
$[\alpha]_D^{20}$ = +9.6 (c = 0.76, EtOH)

Source of chirality: enzymatic resolution of a precursor
Absolute configuration *R*
(assigned on the basis of α_D)

Tetrahedron: Asymmetry **1992,** *3*, 1149

U. Goergens and M. P. Schneider



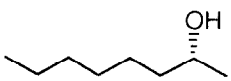
$C_8H_{16}O$
1,2-Epoxyoctane

E.e. = >95 % [^{1}H-NMR in presence of chiral shift reagent]
$[\alpha]_D^{20}$ = +14.2 (c = 2.48, EtOH)

Source of chirality: enzymatic resolution of a precursor
Absolute configuration *R*
(assigned on the basis of α_D)

Tetrahedron: Asymmetry **1992,** *3*, 1149

U. Goergens and M. P. Schneider



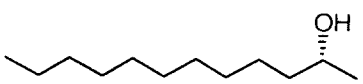
$C_8H_{18}O$
2-Octanol

E.e. = >96 % [by ^{1}H-NMR of the MosherEster]
$[\alpha]_D^{20}$ = -8.0 (c = 0.88 , $CHCl_3$)

Source of chirality: enzymatic resolution of a precursor
Absolute configuration *R*
(assigned on the basis of α_D)

Tetrahedron: Asymmetry **1992,** *3*, 1149

U. Goergens and M. P. Schneider



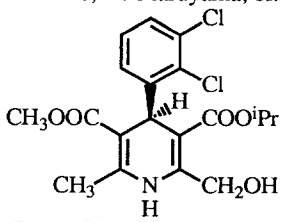
$C_{12}H_{26}O$
2-Dodecanol

E.e. = >96 % [by ^{1}H-NMR of the MosherEster]
$[\alpha]_D^{20}$ = -5.0 (c = 0.55, EtOH)

Source of chirality: enzymatic resolution of a precursor
Absolute configuration *R*
(assigned on the basis of α_D)

H. Ebiike, K. Maruyama, K. Achiwa

Tetrahedron: Asymmetry **1992,** *3*, 1153



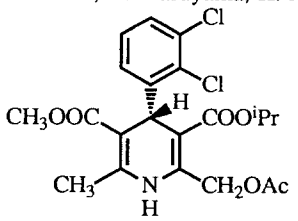
E.e.=92% (by HPLC analysis)
$[\alpha]_D^{20}$=+34.4 (*c* 0.5, acetone)
Sourse of chirality: Cholesterol esterase

Absolute configuration ***R***

$C_{19}H_{21}Cl_2NO_5$
Isopropyl 4-(2,3-Dichlorophenyl)-2-hydroxymethyl-5-methoxycarbonyl-6-methyl-3-pyridinecarboxylate

H. Ebiike, K. Maruyama, K. Achiwa

Tetrahedron: Asymmetry **1992,** *3*, 1153



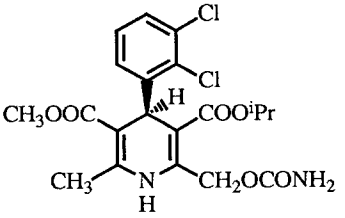
E.e.=98% (by HPLC analysis)
$[\alpha]_D^{20}$=-37.6 (*c* 0.5, acetone)
Sourse of chirality: Cholesterol esterase

Absolute configuration ***S***

$C_{21}H_{23}Cl_2NO_6$
Isopropyl 2-Acetoxymethyl-4-(2,3-dichlorophenyl)-5-methoxycarbonyl-6-methyl-3-pyridinecarboxylate

H. Ebiike, K. Maruyama, K. Achiwa

Tetrahedron: Asymmetry **1992,** *3*, 1153



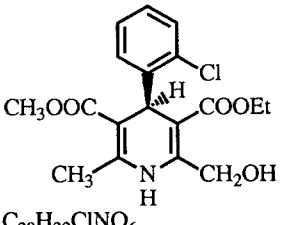
E.e.=100% (by HPLC analysis)
$[\alpha]_D^{20}$=+39.9 (*c* 1.0, acetone)
Sourse of chirality: Cholesterol esterase

Absolute configuration ***R***

$C_{20}H_{22}Cl_2N_2O_6$
Isopropyl 2-[(Aminocarbonyl)oxymethyl]-4-(2,3-dichlorophenyl)-5-methoxycarbonyl-6-methyl-3-pyridinecarboxylate

H. Ebiike, K. Maruyama, K. Achiwa

Tetrahedron: Asymmetry **1992,** *3*, 1153



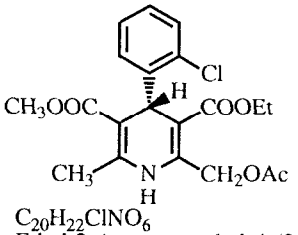
E.e.=91% (by HPLC analysis)
$[\alpha]_D^{20}$=+14.3 (*c* 0.6, acetone)
Sourse of chirality: Lipase AH-SE from *Pseudomonas sp.*

Absolute configuration ***R***

$C_{20}H_{22}ClNO_6$
Ethyl 4-(2-Chlorophenyl)-2-hydroxymethyl-5-methoxycarbonyl-6-methyl-3-pyridinecarboxylate

H. Ebiike, K. Maruyama, K. Achiwa

Tetrahedron: Asymmetry **1992,** *3*, 1153



$C_{20}H_{22}ClNO_6$

Ethyl 2-Acetoxymethyl-4-(2-chlorophenyl)-5-methoxycarbonyl-6-methyl-3-pyridinecarboxylate

E.e.=98% (by HPLC analysis)

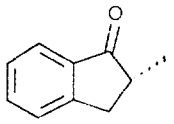
$[\alpha]_D^{20}$=-29.1 (*c* 1.0, acetone)

Sourse of chirality: Lipase AH-SE from *Pseudomonas sp.*

Absolute configuration *S*

F. Hénin, J. Muzart

Tetrahedron: Asymmetry **1992,** *3*, 1161



$C_{10}H_{10}O$

(2R)-2-methyl-1-indanone

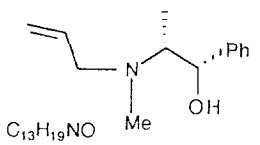
E.e.= 38% (from optical rotation and CLG analysis on a 25 m silica coated with CP cyclodextrin β-2,3,6-M-19)

$[\alpha]_D^{20}$ = -16 (c=3, CH_2Cl_2)

Source of chirality : (2-methyl-1-indenyl) allyl carbonate + Pd(O) + (-) ephedrine

F. Hénin, J. Muzart

Tetrahedron: Asymmetry **1992,** *3*, 1161



$C_{13}H_{19}NO$

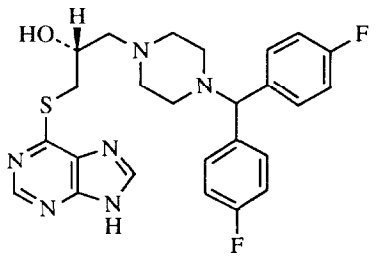
(1S, 2R)-1-phenyl-2-(N-methyl-N-allylamino)-1-propanol

$[\alpha]_D^{20}$ = -2 (C=3.8, CH_2Cl_2)

Prepared from (+) ephedrine

D. L. Barton, J. B. Press, Z. G. Hajos, R. A. Sawyers

Tetrahedron: Asymmetry **1992,** *3*, 1189



$C_{25}H_{26}F_2N_6OS \cdot 0.5\ H_2O$

(R)-(-)-4-[bis(4-fluorophenyl)methyl]-α-[(1*H*-purin-6-ylthio)methyl]-1-piperazineethanol

ee = 97.4% by enantiomeric HPLC

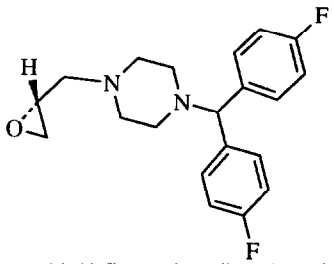
$[\alpha]_D^{22}$ = -9.0 (1% in ethanol)

Source of chirality: (2S)-(+)-glycidyl 3-nitrobenzenesulfonate

Absolute configuration: R, assigned by reaction mechanism

D. L. Barton, J. B. Press, Z. G. Hajos, R. A. Sawyers

Tetrahedron: Asymmetry **1992,** *3*, 1189



$C_{20}H_{22}F_2N_2O$

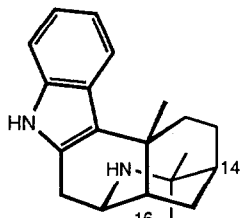
ee = 98.5% by enantiomeric HPLC
$[\alpha]_D^{22}$ = +12.3 (1% in ethanol)
Source of chirality: (2S)-(+)-glycidyl 3-nitrobenzenesulfonate
Absolute configuration: R, assigned by reaction mechanism

(R)-(+)-1-[bis(4-fluorophenyl)methyl]-4-(oxiranylmethyl)piperazine

---

R. Güller and H.-J. Borschberg*

Tetrahedron: Asymmetry **1992,** *3*, 1197



$C_{20}H_{26}N_2$
(-)-Alloaristoteline

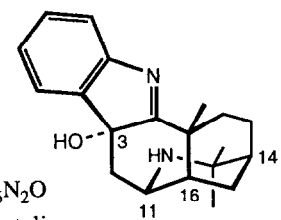
E.e.=100 % [by synthesis from optically pure (+)-aristoteline]
$[\alpha]_D^{25}$= - 35 (c 1, $CHCl_3$)

Source of chirality: natural *(S)*-α-terpineol (= 1-*p*-menthen-8-ol) served as one of the building blocks for the synthesis of (+)-aristoteline. [Darbre et al., *Helv. Chim. Acta.***1984,** *67*, 1040.]

Absolute configuration 11R, 14S, 16S, 17R
(assigned by synthesis from *(S)*-α-terpineol)

R. Güller and H.-J. Borschberg*

Tetrahedron: Asymmetry **1992,** *3*, 1197



$C_{20}H_{26}N_2O$
(-)-Serratoline

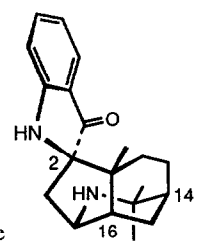
E.e.=100 % [by synthesis from optically pure (+)-aristoteline]
$[\alpha]_D^{25}$= - 64 (c 0.91, $CHCl_3$)

Source of chirality: natural *(S)*-α-terpineol (= 1-*p*-menthen-8-ol) served as one of the building blocks for the synthesis of (+)-aristoteline. [Darbre et al., *Helv. Chim. Acta.***1984,** *67*, 1040.]

Absolute configuration 3R, 11R, 14S, 16S, 17R
(assigned by synthesis from *(S)*-α-terpineol)

R. Güller and H.-J. Borschberg*

Tetrahedron: Asymmetry **1992,** *3*, 1197



$C_{20}H_{26}N_2O$
(+)-Aristotelone

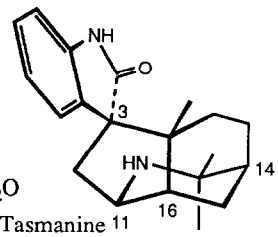
E.e.=100 % [by synthesis from optically pure (+)-aristoteline]
$[\alpha]_D^{25}$= + 264 (c 1.12, $CHCl_3$)

Source of chirality: natural *(S)*-α-terpineol (= 1-*p*-menthen-8-ol) served as one of the building blocks for the synthesis of (+)-aristoteline. [Darbre et al., *Helv. Chim. Acta.***1984,** *67*, 1040.]

Absolute configuration 2R, 11R, 14S, 16S, 17R
(assigned by synthesis from *(S)*-α-terpineol)

R. Güller and H.-J. Borschberg*

Tetrahedron: Asymmetry **1992,** *3*, 1197



$C_{20}H_{26}N_2O$

(+)-3-epi-Tasmanine

E.e.=100 % [by synthesis from optically pure (+)-aristoteline]

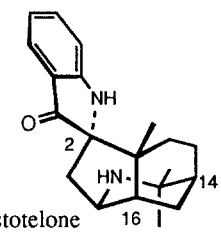
$[\alpha]_D^{25}$= + 105 (c 1.19, $CHCl_3$)

Source of chirality: natural *(S)*-α-terpineol (= 1-*p*-menthen-8-ol) served as one of the building blocks for the synthesis of (+)-aristoteline. [Darbre et al., *Helv. Chim. Acta.***1984,** *67*, 1040.]

Absolute configuration 3S, 11R, 14S, 16S, 17R (assigned by synthesis from *(S)*-α-terpineol)

R. Güller and H.-J. Borschberg*

Tetrahedron: Asymmetry **1992,** *3*, 1197



$C_{20}H_{26}N_2O$

(-)-2-epi-Aristotelone

E.e.=100 % [by synthesis from optically pure (+)-aristoteline]

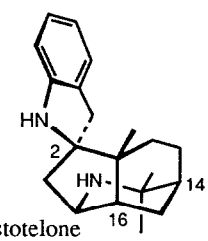
$[\alpha]_D^{25}$= - 183.5 (c 0.14, $CHCl_3$)

Source of chirality: natural *(S)*-α-terpineol (= 1-*p*-menthen-8-ol) served as one of the building blocks for the synthesis of (+)-aristoteline. [Darbre et al., *Helv. Chim. Acta.***1984,** *67*, 1040.]

Absolute configuration 2S, 11R, 14S, 16S, 17R (assigned by synthesis from *(S)*-α-terpineol)

R. Güller and H.-J. Borschberg*

Tetrahedron: Asymmetry **1992,** *3*, 1197



$C_{20}H_{28}N_2$

(-)-3-Desoxoaristotelone

E.e.=100 % [by synthesis from optically pure (+)-aristoteline]

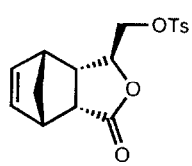
$[\alpha]_D^{25}$= - 37.5 (c 1, $CHCl_3$)

Source of chirality: natural *(S)*-α-terpineol (= 1-*p*-menthen-8-ol) served as one of the building blocks for the synthesis of (+)-aristoteline. [Darbre et al., *Helv. Chim. Acta.***1984,** *67*, 1040.]

Absolute configuration 2R, 11R, 14S, 16S, 17R (assigned by synthesis from *(S)*-α-terpineol)

R. Casas, R. M. Ortuño

Tetrahedron: Asymmetry **1992,** *3*, 1205



$C_{17}H_{18}O_5S$

5-p-toluensulfonyloxymethyl-4-oxatricyclo[5.2.1.$0^{2,6}$]-dec-8-en-3-ona

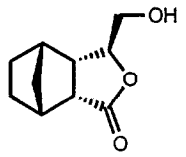
$[\alpha]_D$= +8.4 (c 1.27, $CHCl_3$)

Source of chirality: D-Mannitol.

Absolute configuration 1*S*, 2*R*, 5*S*, 6*S*, 7*R*

R. Casas, R. M. Ortuño

Tetrahedron: Asymmetry **1992,** *3*, 1205



$[\alpha]_D$= -55.7 (c 1.88, $CHCl_3$)

Source of chirality: D-Mannitol.

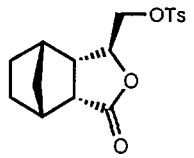
Absolute configuration 1*R*, 2*R*, 5*S*, 6*S*, 7*S*

$C_{10}H_{14}O_4$

5-hydroxymethyl-4-oxatricyclo[5.2.1.$0^{2,6}$]-decan-3-ona

R. Casas, R. M. Ortuño

Tetrahedron: Asymmetry **1992,** *3*, 1205



$[\alpha]_D$= -3.6 (c 2.42, $CHCl_3$)

Source of chirality: D-Mannitol.

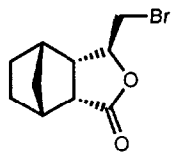
Absolute configuration 1*R*, 2*R*, 5*S*, 6*S*, 7*S*

$C_{17}H_{20}O_5S$

5-p-toluensulfonyloxymethyl-4-oxatricyclo[5.2.1.$0^{2,6}$]-decan-3-ona

R. Casas, R. M. Ortuño

Tetrahedron: Asymmetry **1992,** *3*, 1205



$[\alpha]_D$= -56.3 (c 1.35, $CHCl_3$)

Source of chirality: D-Mannitol.

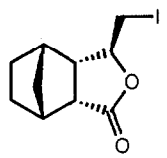
Absolute configuration 1*R*, 2*R*, 5*S*, 6*S*, 7*S*

$C_{10}H_{13}BrO_2$

5-bromomethyl-4-oxatricyclo[5.2.1.$0^{2,6}$]-decan-3-ona

R. Casas, R. M. Ortuño

Tetrahedron: Asymmetry **1992,** *3*, 1205



$[\alpha]_D$= -54.3 (c 2.40, $CHCl_3$)

Source of chirality: D-Mannitol.

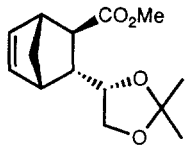
Absolute configuration 1*R*, 2*R*, 5*S*, 6*S*, 7*S*

$C_{10}H_{13}IO_2$

5-iodomethyl-4-oxatricyclo[5.2.1.$0^{2,6}$]-decan-3-ona

R. Casas, R. M. Ortuño

Tetrahedron: Asymmetry **1992,** *3*, 1205



$[\alpha]_D$= -70.4 (c 3.61, $CHCl_3$)

Source of chirality: D-Mannitol.

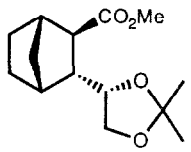
Absolute configuration 1*R*, 2*R*, 3*R*, 4*S*, 4'*S*

$C_{14}H_{20}O_4$

3-[4'-(2,2-dimethyl-1,3-dioxolo)]-2-methoxycarbonyl-bicyclo[2.2.1]hept-5-ene

R. Casas, R. M. Ortuño

Tetrahedron: Asymmetry **1992,** *3*, 1205



$[\alpha]_D$= -9.2 (c 2.23, $CHCl_3$)

Source of chirality: D-Mannitol.

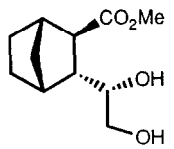
Absolute configuration 1*S*, 2*R*, 3*R*, 4*R*, 4'*S*

$C_{14}H_{22}O_4$

3-[4'-(2,2-dimethyl-1,3-dioxolo)]-2-methoxycarbonyl-bicyclo[2.2.1]heptane

R. Casas, R. M. Ortuño

Tetrahedron: Asymmetry **1992,** *3*, 1205



$[\alpha]_D$= -14.2 (c 5.21, $CHCl_3$)

Source of chirality: D-Mannitol.

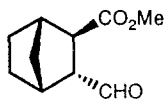
Absolute configuration 1*S*, 2*R*, 3*R*, 4*R*, 1'*S*

$C_{11}H_{18}O_4$

3-(1,2-dihydroxyethyl)-2-methoxycarbonyl-bicyclo[2.2.1]heptane

R. Casas, R. M. Ortuño

Tetrahedron: Asymmetry **1992,** *3*, 1205



$[\alpha]_D$= +34.7 (c 2.02, $CHCl_3$)

Source of chirality: D-Mannitol.

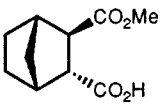
Absolute configuration 1*S*, 2*R*, 3*R*, 4*R*

$C_{10}H_{14}O_3$

3-formyl-2-methoxycarbonylbicyclo[2.2.1]-heptane

R. Casas, R. M. Ortuño

Tetrahedron: Asymmetry **1992,** *3*, 1205



$[\alpha]_D$= -40.1 (c 0.98, MeOH)

Source of chirality: D-Mannitol.

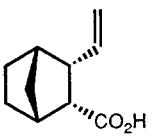
Absolute configuration 1*S*, 2*R*, 3*R*, 4*R*

$C_{10}H_{14}O_4$

3-carboxy-2-methoxycarbonylbicyclo[2.2.1]-heptane

R. Casas, R. M. Ortuño

Tetrahedron: Asymmetry **1992,** *3*, 1205



$[\alpha]_D$= -61.1 (c 1.92, $CHCl_3$)

Source of chirality: D-Mannitol.

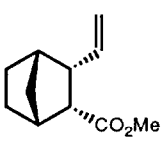
Absolute configuration 1*R*, 2*R*, 3*S*, 4*S*

$C_{10}H_{14}O_2$

2-carboxy-3-vinylbicyclo[2.2.1]-heptane

R. Casas, R. M. Ortuño

Tetrahedron: Asymmetry **1992,** *3*, 1205



$[\alpha]_D$= -70.4 (c 1.42, $CHCl_3$)

Source of chirality: D-Mannitol.

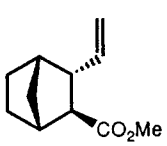
Absolute configuration 1*R*, 2*R*, 3*S*, 4*S*

$C_{11}H_{16}O_2$

2-methoxycarbonyl-3-vinylbicyclo[2.2.1]-heptane

R. Casas, R. M. Ortuño

Tetrahedron: Asymmetry **1992,** *3*, 1205



$[\alpha]_D$= +43.3 (c 2.63, $CHCl_3$)

Source of chirality: D-Mannitol.

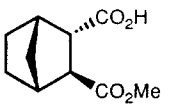
Absolute configuration 1*R*, 2*S*, 3*S*, 4*S*

$C_{11}H_{16}O_2$

2-methoxycarbonyl-3-vinylbicyclo[2.2.1]-heptane

R. Casas, R. M. Ortuño

Tetrahedron: Asymmetry **1992**, *3*, 1205



$[\alpha]_D$= +39.0 (c 0.87, MeOH)

Source of chirality: D-Mannitol.

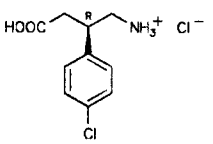
Absolute configuration 1*R*, 2*S*, 3*S*, 4*S*

$C_{10}H_{14}O_4$

3-carboxy-2-methoxycarbonylbicyclo[2.2.1]-heptane

C. Herdeis*and H.P. Hubmann

Tetrahedron: Asymmetry **1992**, *3*, 1213



$C_{10}H_{13}NO_2Cl_2$

E.e. = > 95% (comparison to the reported value) derived from (S)-Pyroglutamic acid

$[\alpha]_D^{20}$ = -2 (c = 0.2, H_2O)

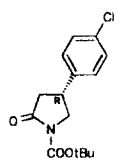
Source of chirality: (S)-Pyroglutamic acid

Absolute configuration: 3R

3(R)-4-Amino-3-(4-chlorophenyl)butanoic acid hydrochloride

C. Herdeis*and H.P. Hubmann

Tetrahedron: Asymmetry **1992**, *3*, 1213



$C_{15}H_{18}NO_3Cl$

E.e. = > 95% derived from (S)-Pyroglutamic acid

$[\alpha]_D^{20}$ = +4.5 (c = 0.2, $CHCl_3$)

Source of chirality: (S)-Pyroglutamic acid

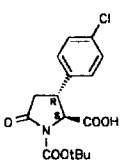
Absolute configuration: 4R

4(R)-1-tert.Butoxycarbonyl-4-(4-chlorophenyl)pyrrolidine-2-one

---

C. Herdeis*and H.P. Hubmann

Tetrahedron: Asymmetry **1992**, *3*, 1213



$C_{16}H_{18}NO_5Cl$

homochiral-single diastereomer derived from (S)-Pyroglutamic acid

$[\alpha]_D^{20}$ = +33.7 (c = 0.162, $CHCl_3$)

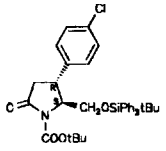
Source of chirality: (S)-Pyroglutamic acid

Absolute configuration: 2S, 3R

2(S),3(R)-1-tert.Butoxycarbonyl-3-(4-chlorophenyl)-5-oxopyrrolidine-2-carboxylic acid

C. Herdeis*and H.P. Hubmann

Tetrahedron: Asymmetry **1992,** *3,* 1213



$C_{32}H_{38}ClNO_4Si$

homochiral-single diastereomer derived from
(S)-Pyroglutamic acid
$[\alpha]_D^{20} = -26.5$ (c = 0.226, $CHCl_3$)
Source of chirality: (S)-Pyroglutamic acid
Absolute configuration: 4R, 5S

4(R),5(S)-1-tert.Butoxycarbonyl-5-tert.butyldiphenylsilyloxymethyl-4-(4-chlorophenyl)pyrrolidine-2-one