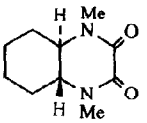
T. Połoński

Tetrahedron: Asymmetry **1994**, *5*, 149



$C_{10}H_{16}N_2O_2$

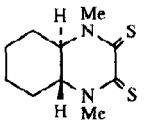
(R)-*trans*-1,4-dimethyl-
-2,3-dioxodecahydroquinoxaline

$[\alpha]_{578}^{22}$ - 150.7 (*c* 2, $CHCl_3$)

Source of chirality: (1R, 2R) - 1,2-diaminocyclohexane
Absolute configuration: 9R, 10R

T. Połoński

Tetrahedron: Asymmetry 1994, *5*, 149



$C_{10}H_{16}N_2S_2$

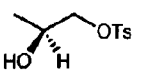
(R)-*trans*-1,4-dimethyl-
-2,3-dithioxodecahydroquinoxaline

$[\alpha]_{578}^{20}$ + 640 (*c* 0.1, $CHCl_3$)

Source of chirality: (1R, 2R) - 1,2-diaminocyclohexane
Absolute configuration: 9R, 10R

Neil W. Boaz and Rebecca L. Zimmerman

Tetrahedron: Asymmetry 1994, *5*, 153



$C_{10}H_{14}O_4S$

2-Hydroxypropyl tosylate

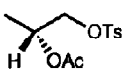
E.e. = 99% (by HPLC on CHIRALCEL OB column)
$[\alpha]_D^{20}$ +13.0 (c 2.06, $CHCl_3$), +5.5 (c 1.43, CH_3OH)

Source of chirality: enzymatic esterification

Absolute Configuration S
(compound of known configuration)

Neil W. Boaz and Rebecca L. Zimmerman

Tetrahedron: Asymmetry 1994, *5*, 153



$C_{12}H_{16}O_5S$

2-Acetoxypropyl tosylate

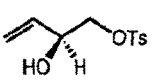
E.e. = 93% [by HPLC (after deacylation) on
CHIRALCEL OB column]
$[\alpha]_D^{20}$ +12.4 (c 2.10, $CHCl_3$)

Source of chirality: enzymatic esterification

Absolute Configuration R
(compound of known configuration)

Neil W. Boaz and Rebecca L. Zimmerman

Tetrahedron: Asymmetry **1994**, *5*, 153



$C_{11}H_{14}O_4S$

2-Hydroxy-3-butenyl tosylate

E.e. = 98% (by HPLC on CHIRALCEL OB column)

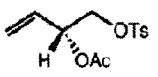
$[\alpha]_D^{20}$ -7.6 (c. 1.03, CH_3OH)

Source of chirality: enzymatic esterification

Absolute Configuration S (assigned by conversion to 3-butene-1,2-diol of known configuration)

Neil W. Boaz and Rebecca L. Zimmerman

Tetrahedron: Asymmetry **1994**, *5*, 153



$C_{13}H_{16}O_5S$

2-Acetoxy-3-butenyl tosylate

E.e. = 96% [by HPLC (after deacylation) on CHIRALCEL OB column]

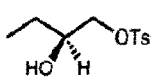
$[\alpha]_D^{20}$ +5.3 (c 1.32, CH_3OH)

Source of chirality: enzymatic esterification

Absolute Configuration R (assigned by conversion to 3-butene-1,2-diol of known configuration)

Neil W. Boaz and Rebecca L. Zimmerman

Tetrahedron: Asymmetry **1994**, *5*, 153



$C_{11}H_{16}O_4S$

2-Hydroxybutyl tosylate

E.e. = 98% (by GC (CYCLODEX-B) after conversion to 1,2-butanediol acetonide)

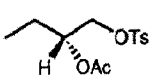
$[\alpha]_D^{20}$ +10.9 (c 2.16, $CHCl_3$), +1.3 (c 0.98, CH_3OH)

Source of chirality: enzymatic esterification

Absolute Configuration S (compound of known configuration)

Neil W. Boaz and Rebecca L. Zimmerman

Tetrahedron: Asymmetry **1994**, *5*, 153



$C_{13}H_{18}O_5S$

2-Acetoxybutyl tosylate

E.e. = 80% [by GC (CYCLODEX-B) after conversion to 1,2-butanediol acetonide]

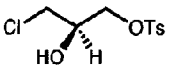
$[\alpha]_D^{20}$ +21.8 (c 1.72, $CHCl_3$)

Source of chirality: enzymatic esterification

Absolute Configuration R (deacylated compound of known configuration)

Neil W. Boaz and Rebecca L. Zimmerman

Tetrahedron: Asymmetry **1994**, *5*, 153



$C_{10}H_{13}ClO_4S$

3-Chloro-2-hydroxypropyl tosylate

E.e. = 99% [by HPLC (Hypersil silica) of MTPA ester)]

$[\alpha]_D^{20}$ +2.0 (c 1.3, CH_3OH)

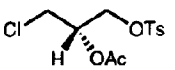
Source of chirality: enzymatic esterification

Absolute Configuration R

(compound of known configuration)

Neil W. Boaz and Rebecca L. Zimmerman

Tetrahedron: Asymmetry **1994**, *5*, 153



$C_{12}H_{15}ClO_5S$

3-Chloro-2-acetoxypropyl tosylate

E.e. = 92% [by HPLC (Hypersil silica) after deacylation and MTPA ester formation]

$[\alpha]_D^{20}$ +7.9 (c 1.24, CH_3OH)

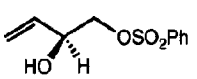
Source of chirality: enzymatic esterification

Absolute Configuration S

(deacylated compound of known configuration)

Neil W. Boaz and Rebecca L. Zimmerman

Tetrahedron: Asymmetry **1994**, *5*, 153



$C_{10}H_{12}O_4S$

2-Hydroxy-3-butenyl phenylsulfonate

E.e. = >99% (by HPLC on CHIRALCEL OB column)

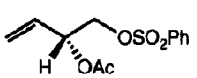
$[\alpha]_D^{20}$ -6.7 (c. 1.02, CH_3OH)

Source of chirality: enzymatic esterification

Absolute Configuration S (assigned by conversion to 3-butene-1,2-diol of known configuration)

Neil W. Boaz and Rebecca L. Zimmerman

Tetrahedron: Asymmetry **1994**, *5*, 153



$C_{12}H_{14}O_5S$

2-Acetoxy-3-butenyl phenylsulfonate

E.e. = 96% [by HPLC (after deacylation) on CHIRALCEL OB column]

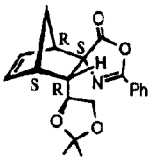
$[\alpha]_D^{20}$ +10.4 (c 1.15, CH_3OH)

Source of chirality: enzymatic esterification

Absolute Configuration R (assigned by conversion to 3-butene-1,2-diol of known configuration)

Elena Bufiuel, Carlos Cativiela*, and Maria D. Diaz-de-Villegas

Tetrahedron: Asymmetry **1994**, *5*, 157

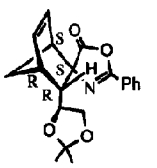


d.e.>98% by HPLC
$[\alpha]_D^{20}$ + 142.8 (c = 1, $CHCl_3$)
Source of chirality : diastereoselective cycloaddition
Absolute configuration : *1R, 2S, 3R, 4S*

$C_{20}H_{21}NO_4$
(1R,2S,3R,4S) -3-[*(S)* -2,2-dimethyl-1,3-dioxolan-4-yl]-bicyclo[2.2.1.]hept-5-en-2-spiro-{4'[2'-phenyl-5'(4'H)-oxazolone]}

Elena Bufiuel, Carlos Cativiela*, and Maria D. Diaz-de-Villegas

Tetrahedron: Asymmetry **1994**, *5*, 157

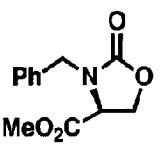


d.e.>98% by HPLC
$[\alpha]_D^{20}$ - 27.6 (c = 0.5, $CHCl_3$)
Source of chirality : diastereoselective cycloaddition
Absolute configuration : *1S, 2S, 3R, 4R*

$C_{20}H_{21}NO_4$
(1S,2S,3R,4R) -3-[*(S)* -2,2-dimethyl-1,3-dioxolan-4-yl]bicyclo-[2.2.1.]hept-5-en-2-spiro-{4'[2'-phenyl-5'(4'H)-oxazolone]}

Shigeo Katsumura, Noriyoshi Yamamoto, Makiko Morita, and Qingjun Han

Tetrahedron: Asymmetry **1994**, *5*, 161



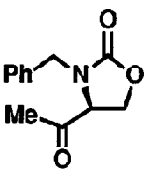
E.e.= 100%
$[\alpha]_D$ -41.3 (c=1.0, $CHCl_3$)
M.p.= 63.9- 64.4 °C

Source of chirality; R-(+)-glycidol derived from biological resolution and base treatment of epichlorohydrin.
Absolute configuration: S

$C_{12}H_{13}NO_4$
3-Benzyl-4-(S)-methoxycarbonyl-2-oxazolidinone

Shigeo Katsumura, Noriyoshi Yamamoto, Makiko Morita, and Qingjun Han

Tetrahedron: Asymmetry **1994**, *5*, 161



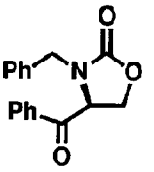
E.e.= 100% by chiral HPLC
$[\alpha]_D$ -41 (c=0.9, $CHCl_3$)
M.p.= 81.5- 82.3 °C

Source of chirality; R-(+)-glycidol derived from biological resolution and base treatment of epichlorohydrin.
Absolute configuration: S

$C_{12}H_{13}NO_3$
3-Benzyl-4-(S)-acetyl-2-oxazolidinone

Shigeo Katsumura, Noriyoshi Yamamoto, Makiko Morita, and Qingjun Han

Tetrahedron: Asymmetry **1994**, *5*, 161



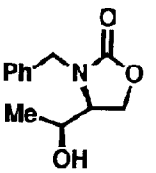
E.e.= 100% by chiral HPLC
$[\alpha]_D$ -171.9 (c=1.0, $CHCl_3$)
M.p.= 91.1- 91.8 °C

Source of chirality; R-(+)-glycidol derived from biological resolution and base treatment of epichlorohydrin.
Absolute configuration: S

$C_{17}H_{15}NO_3$
3-Benzyl-4-(S)-benzoyl-2-oxazolidinone

Shigeo Katsumura, Noriyoshi Yamamoto, Makiko Morita, and Qingjun Han

Tetrahedron: Asymmetry **1994**, *5*, 161

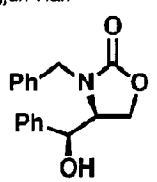


E.e.> 98% by comparison of the optical rotation with that of the enantiomer which was derived from (2S,3R)-N-t-butoxycarbonyl-O-benzylthreonine
$[\alpha]_D$ +34.6 (c=0.91, $CHCl_3$)
M.p.= 76.5- 77.2 °C
Source of chirality; R-(+)-glycidol derived from biological resolution and base treatment of epichlorohydrin.
Absolute configuration: 4S, 1'S

$C_{12}H_{15}NO_3$
3-Benzyl-4-(S)-[1'-(S)-hydroxyethyl]-2-oxazolidinone

Shigeo Katsumura, Noriyoshi Yamamoto, Makiko Morita, and Qingjun Han

Tetrahedron: Asymmetry **1994**, *5*, 161



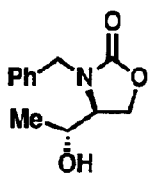
E.e.>98% by comparison of the optical rotation after conversion to a formic salt of (+)-hydroxyphenylalaninol
$[\alpha]_D$ +72.1 (c=0.96, $CHCl_3$)
M.p.= 135- 136 °C

Source of chirality; R-(+)-glycidol derived from biological resolution and base treatment of epichlorohydrin.
Absolute configuration: 4S, 1'S

$C_{17}H_{17}NO_3$
3-Benzyl-4-(S)-[(S)-hydroxybenzyl]-2-oxazolidinone

Shigeo Katsumura, Noriyoshi Yamamoto, Makiko Morita, and Qingjun Han

Tetrahedron: Asymmetry **1994**, *5*, 161



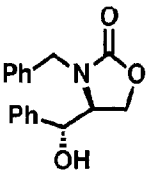
E.e.>98% by precursor
$[\alpha]_D$ +19.2 (c=1.0, $CHCl_3$)
M.p.= 85.5- 86.5 °C

Source of chirality: R-(+)-glycidol derived from biological resolution and base treatment of epichlorohydrin.
Absolute configuration: 4S,1'R

$C_{12}H_{15}NO_3$
3-Benzyl-4-(S)-[1'-(R)-hydroxyethyl]-2-oxazolidinone

Shigeo Katsumura, Noriyoshi Yamamoto, Makiko Morita, and Qingjun Han

Tetrahedron: Asymmetry **1994**, *5*, 161



E.e.> 98% by precursor
$[\alpha]_D$ +17.2 (c=0.92, $CHCl_3$)
M.p.= 116.5- 117.5 °C

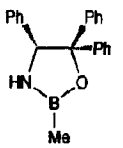
Source of chirality: R-(+)-glycidol derived from biological resolution and base treatment of epichlorohydrin.
Absolute configuration: 4S,1'R

$C_{17}H_{17}NO_3$

3-Benzyl-4-(S)-[(R)-hydroxybenzyl]-2-oxazolidinone

R. Berenguer, J. Garcia, and J. Vilarrasa

Tetrahedron: Asymmetry **1994**, *5*, 165



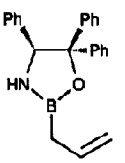
E.e.>99% (determined by HPLC of Mosher's amide)
^{11}B-NMR ($CDCl_3$) δ 39
Source of chirality: D-(–)-Phenylglycine
Absolute configuration: *R*

$C_{21}H_{20}BNO$

***B*-Methyl-4,5,5-triphenyl-1,3,2-oxazaborolidine**

R. Berenguer, J. Garcia, and J. Vilarrasa

Tetrahedron: Asymmetry **1994**, *5*, 165



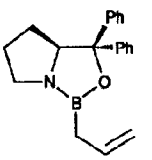
E.e.>99% (determined by HPLC of Mosher's amide)
^{11}B-NMR ($CDCl_3$) δ 39
Source of chirality: D-(–)-Phenylglycine
Absolute configuration: *R*

$C_{23}H_{22}BNO$

***B*-Allyl-4,5,5-triphenyl-1,3,2-oxazaborolidine**

R. Berenguer, J. Garcia, and J. Vilarrasa

Tetrahedron: Asymmetry **1994**, *5*, 165



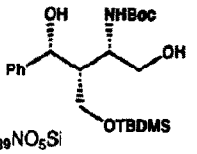
E.e.>99% (determined by HPLC of Mosher's amide)
^{11}B-NMR ($CDCl_3$) δ 32
Source of chirality: L-(–)-Proline
Absolute configuration: *S*

$C_{20}H_{22}BNO$

Tetrahydro-1-allyl-3,3-diphenyl-1*H*,3*H*-pyrrolo[1,2-*c*]-[1,3,2]oxazaborole

H. Yoda, Y. Nakagami, and K. Takabe

Tetrahedron: Asymmetry **1994**, *5*, 169



$C_{22}H_{39}NO_5Si$

2-*tert*-Butoxycarbonylamino-3-*tert*-[(butyldimethylsilyl)oxy]methyl-4-phenylbutan-1,4-diol

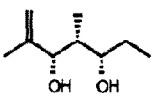
E.e.=homochiral
D.e.=100% [by chromatographic isolation]
$[\alpha]_D^{26}$+29.2(c 3.34,$CHCl_3$)

Source of chirality: L-Aspartic acid

Absolute configuration 2S, 3R, 4R (assigned by vicinal coupling constants of synthetic intermediate)

Carlo Bonini, Rocco Racioppi, Giuliana Righi, Leucio Rossi

Tetrahedron: Asymmetry **1994**, *5*, 173



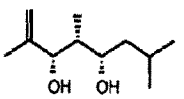
$C_9H_{18}O_2$: (3S,4R,5S)-3,5-dihydroxy-2,4-dimethyl-1-heptene

E.e. 92% (by ^{1}H-NMR and GC/MS analysis of Mosher derivative)

Source of chirality: asymmetric aldol condensation and diastereoselective reduction.
Absolute configuration from method of synthesis of correlated known compounds.

Carlo Bonini, Rocco Racioppi, Giuliana Righi, Leucio Rossi

Tetrahedron: Asymmetry **1994**, *5*, 173



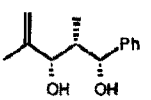
$C_{11}H_{22}O_2$: (3S,4R,5S)-3,5-dihydroxy-2,4,7-trimethyl-1-octene

E.e. 91% (by ^{1}H-NMR and GC/MS analysis of Mosher derivative)

Source of chirality: asymmetric aldol condensation and diastereoselective reduction
Absolute configuration from method of synthesis of correlated known compounds.

Carlo Bonini, Rocco Racioppi, Giuliana Righi, Leucio Rossi

Tetrahedron: Asymmetry **1994**, *5*, 173



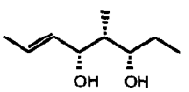
$C_{13}H_{18}O_2$: (3S,4S,5R)-1,3-dihydroxy-2,4-dimethyl-5-phenyl-1-pentene

E.e. 96% (by ^{1}H-NMR and GC/MS analysis of Mosher derivative)

Source of chirality: asymmetric aldol condensation and diastereoselective reduction
Absolute configuration from method of synthesis of correlated known compounds.

Carlo Bonini, Rocco Racioppi, Giuliana Righi, Leucio Rossi

Tetrahedron: Asymmetry **1994**, *5*, 173



E.e. 88% (by ^{1}H-NMR and GC/MS analysis of Mosher derivative)

Source of chirality: asymmetric aldol condensation and diastereoselective reduction
Absolute configuration from method of synthesis of correlated known compounds.

$C_9H_{18}O_2$: (4S,5R,6S,2E)-4,6-dihydroxy -5-methyl-2-octene

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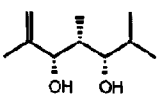
Carlo Bonini, Rocco Racioppi, Giuliana Righi, Leucio Rossi

Tetrahedron: Asymmetry **1994**, *5*, 173



E.e. 90% (by ^{1}H-NMR and GC/MS analysis of Mosher derivative)

Source of chirality: asymmetric aldol condensation and diastereoselective reduction
Absolute configuration from method of synthesis of correlated known compounds.

$C_{10}H_{20}O_2$: (3S,4R,5S)-3,5-dihydroxy -2,4,6-trimethyl-1-heptene

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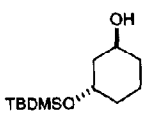
Alan F. Haughan and J. B. Sweeney

Tetrahedron: Asymmetry **1994**, *5*, 177



$C_{12}H_{26}O_2Si$

1-(*tert*butyldimethyl)silyloxy-3-hydroxycyclohexane

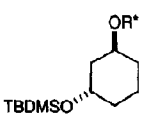
E.e.> 95%

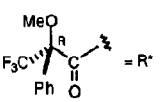
[α] = -4.55

Absolute stereochemistry: 1*S*, 3-*S*
(assigned by nmr analysis of Mosher's ester)

Alan F. Haughan and J. B. Sweeney

Tetrahedron: Asymmetry **1994**, *5*, 177





$C_{18}H_{24}F_3O_4Si$

1-(*tert*butyldimethyl)silyloxy-3-hydroxycyclohexane, MTPA ester

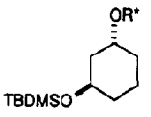
E.e.> 95%

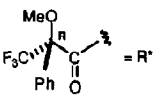
[α] = +32.20

Absolute stereochemistry: 1*S*, 3-*S*
(assigned by nmr analysis)

Alan F. Haughan and J. B. Sweeney

Tetrahedron: Asymmetry **1994**, *5*, 177





E.e.> 95%

$[\alpha]$ = +42.56

Absolute stereochemistry: 1*R*, 3-*R*
(assigned by nmr analysis)

$C_{16}H_{24}F_3O_4Si$

1-(*tert*butyldimethyl)silyloxy-3-hydroxycyclohexane, MTPA ester

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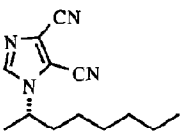
M. Botta, V. Summa, G. Trapassi, E. Monteagudo and F. Corelli

Tetrahedron: Asymmetry **1994**, *5*, 181



$C_{13}H_{18}N_4$

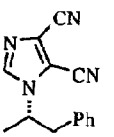
$[\alpha]_{546}^{20}$ = +1.1 (c 2.91 $CHCl_3$)

Prepared from (R)-2-octanol by Mitsunobu reaction with 4,5-dicyanoimidazole.
E.e. = 97

(S)-4,5-Dicyano-1-(2-octyl)imidazole

M. Botta, V. Summa, G. Trapassi, E. Monteagudo and F. Corelli

Tetrahedron: Asymmetry **1994**, *5*, 181



$C_{14}H_{12}N_4$

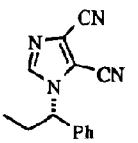
$[\alpha]_D^{20}$ = +58.8 (c 0.85 $CHCl_3$)

Prepared from (R)-1-phenyl-2-propanol
by Mitsunobu reaction with 4,5-dicyanoimidazole.
E.e. = 98

(S)-4,5-Dicyano-1-(1-phenyl-2-propyl)imidazole

M. Botta, V. Summa, G. Trapassi, E. Monteagudo and F. Corelli

Tetrahedron: Asymmetry **1994**, *5*, 181



$C_{14}H_{12}N_4$

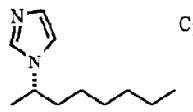
$[\alpha]_D^{20}$ = -44.3 (c 2.82 $CHCl_3$)

Prepared from (R)-1-phenyl-1-propanol
by Mitsunobu reaction with 4,5-dicyanoimidazole.
E.e. = 41

(S)-4,5-Dicyano-1-(1-phenyl-1-propyl)imidazole

M. Botta, V. Summa, G. Trapassi, E. Monteagudo and F. Corelli

Tetrahedron: Asymmetry **1994**, *5*, 181



$C_{11}H_{20}N_2$

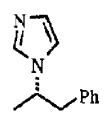
$[\alpha]_{546}^{20} = +16.0$ (c 1.10 $CHCl_3$)

Prepared from: a) (S)-4,5-dicyano-1-(2-octyl)imidazole by hydrolysis-decarboxylation; b) (S)-2-octylamine by reaction with i. $BrCH_2CH(OMe)_2$, ii. KSCN, iii. Ni/Ra. E.e. = 97

(S)-1-(2-octyl)imidazole

M. Botta, V. Summa, G. Trapassi, E. Monteagudo and F. Corelli

Tetrahedron: Asymmetry **1994**, *5*, 181



$C_{12}H_{14}N_2$

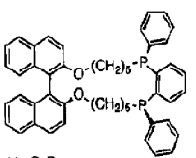
$[\alpha]_D^{20} = +93.3$ (c 0.75 $CHCl_3$)

Prepared from (S)-4,5-dicyano-1-(1-phenyl-1-propyl)-imidazole by hydrolysis-decarboxylation.
E.e. = 98

(S)-1-(1-phenyl-2-propyl)imidazole

M. Widhalm and G. Klintschar

Tetrahedron: Asymmetry **1994**, *5*, 189



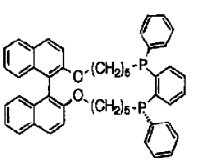
$C_{48}H_{48}O_2P_2$

E.e. 100%
$[\alpha]_D^{20} = -181$ (c 0.93, CH_2Cl_2)
CD [$\lambda(\varepsilon)$]: 335 (−7.68), 323 (−11.3), 292 (−21.8), 284 (−20.2), 239 (293), (c 1.05 10^{-4}, CH_2Cl_2)
source of chirality: optical resolution of the precursor (2,2'-dihydroxy-1,1'-binaphthyl), separation of diastereoisomers
Absolute configuration: $(S)_a(S,R)_P$ (assigned by NMR)

1,4-Diphenyl-benzo[b]-dinaphtho[2,1-k;1,2-m]-10,15-dioxa-1,4-diphospha-2,11,13-cyclododecatriene

M. Widhalm and G. Klintschar

Tetrahedron: Asymmetry **1994**, *5*, 189



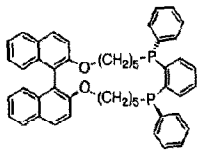
$C_{48}H_{48}O_2P_2$

E.e. 100%
$[\alpha]_D^{20} = -117$ (c 1.80, CH_2Cl_2)
CD [$\lambda(\varepsilon)$]: 335 (−2.71) sh, 324 (−4.41), 305 (2.83), 292 (−4.78), 283 (−5.78), 267 (5.97), 240 (181), (c 2.40 10^{-4} mol^{-1}, CH_2Cl_2)
source of chirality: optical resolution of the precursor (2,2'-dihydroxy-1,1'-binaphthyl), separation of diastereoisomers
Absolute configuration $(S)_a(S,S)_P$ (assigned by rel. X-ray of the $NiCl_2$ complex)

1,4-Diphenyl-benzo[b]-dinaphtho[2,1-k;1,2-m]-10,15-dioxa-1,4-diphospha-2,11,13-cyclododecatriene

M. Widhalm and G. Klintschar

Tetrahedron: Asymmetry **1994**, *5*, 189



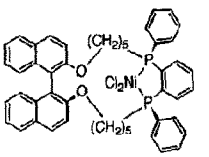
$C_{43}H_{46}O_2P_2$

E.e. 100%
$[\alpha]_D^{20} = -144$ (c:0.40 , CH_2Cl_2)
CD [λ(ε)]: 334 (−8.38) sh, 323 (−12.1), 292 (−22.4), 283 (−23.8), 242 (170), (c:3.77 10^{-4} $moll^{-1}$, CH_2Cl_2)
source of chirality: optical resolution of the precursor
(2,2'-dihydroxy-1,1'-binaphthyl)l,separation of diastereoisomers
Absolute configuration: $(S)_a(R,R)_P$ (assigned by NMR, CD)

1,4-Diphenyl-benzo[b]-dinaphtho[2,1-k,1,2-m]-10,15-dioxa-1,4-diphospha-2,11,13-cyclododecatriene

M. Widhalm and G. Klintschar

Tetrahedron: Asymmetry **1994**, *5*, 189



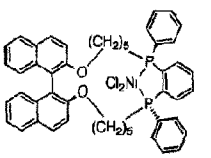
$C_{46}H_{46}Cl_2NiO_2P_2$

E.e. 100%
$[\alpha]_D^{20} = -98$ (c:0.55 , CH_2Cl_2)
CD [λ(ε)]: 494 (0.107), 432 (−0.304), 335 (−8.43), 322 (−11.4), 292 (−23.1), 283 (−22.6), 240 (345) (c:6.5 10^{-4} $moll^{-1}$, CH_2Cl_2)
source of chirality: optical resolution of the precursor
(2,2'-dihydroxy-1,1'-binaphthyl)l,separation of diastereoisomers
Absolute configuration: $(S)_a(S,R)_P$ (assigned by NMR)

1,4-Diphenyl-benzo[b]-dinaphtho[2,1-k;1,2-m]-10,15-dioxa-1,4-diphospha-2,11,13-cyclododecatriene-$NiCl_2$-Complex

M. Widhalm and G. Klintschar

Tetrahedron: Asymmetry **1994**, *5*, 189



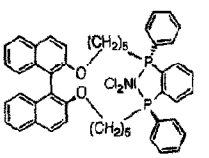
$C_{46}H_{46}Cl_2NiO_2P_2$

E.e. 100%
$[\alpha]_D^{20} = -539$ (c:0.09 , CH_2Cl_2)
CD [λ(ε)]: 512 (−3.94), 444 (2.31), 324 (−21.8), 291 (49.9), 250 (−99.4), 233 (−119) , (c:1.09 10^{-4} $moll^{-1}$, CH_2Cl_2)
source of chirality: optical resolution of the precursor
(2,2'-dihydroxy-1,1'-binaphthyl),separation of diastereoisomers
Absolute configuration. $(S)_a(R,R)_P$ (assigned by rel X-ray)

1,4-Diphenyl-benzo[b]-dinaphtho[2,1-k,1,2-m]-10,15-dioxa-1,4-diphospha-2,11,13-cyclododecatriene-$NiCl_2$-Complex

M. Widhalm and G. Klintschar

Tetrahedron: Asymmetry **1994**, *5*, 189



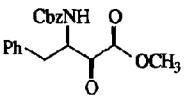
$C_{46}H_{46}Cl_2NiO_2P_2$

E.e. 100%
$[\alpha]_D^{20} = 152$ (c:0.03, CH_2Cl_2)
CD [λ(ε)]: 520 (1.66), 448 (−1.74), 346 (3.60), 334 (−2.14) sh, 324 (−8.27), 291 (47.4), 258 (−11.9) (c: 4.13 10^{-4} $moll^{-1}$, CH_2Cl_2)
source of chirality: optical resolution of the precursor
(2,2'-dihydroxy-1,1'-binaphthyl),separation of diastereoisomers
Absolute configuration: $(S)_a(S,S)_P$ (assigned by NMR, CD)

1,4-Diphenyl-benzo[b]-dinaphtho[2,1-k,1,2-m]-10,15-dioxa-1,4-diphospha-2,11,13-cyclododecatriene-$NiCl_2$-Complex

Paul Darkins, Noreen McCarthy, M. Anthony McKervey, Kevin O'Donnell, Tao Ye and Brian Walker

Tetrahedron: Asymmetry **1994**, *5*, 195



$C_{19}H_{19}NO_5$

Methyl-(3R)-3-(N-benzyloxycarbonyl) amino-2-oxo-4-phenylbutanoate

E.e. > 99 %

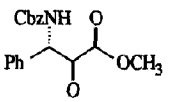
$[\alpha]_D^{20}$ = - 53.1 (c, 1.0, CH_2Cl_2)

Source of chirality : Chemical synthesis from D-Phenylalanine

Absolute configuration : R

Paul Darkins, Noreen McCarthy, M. Anthony McKervey, Kevin O'Donnell, Tao Ye and Brian Walker

Tetrahedron: Asymmetry **1994**, *5*, 195



$C_{18}H_{17}NO_5$

Methyl-(3S)-3-(N-benzyloxycarbonyl) amino-2-oxo-3-phenylpropanoate

E.e. > 99 %

$[\alpha]_D^{20}$ = + 9.6 (c, 1.3, CH_2Cl_2)

Source of chirality : Chemical synthesis from L-Phenylglycine

Absolute configuration : S

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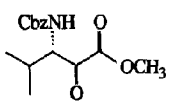
Tetrahedron: Asymmetry **1994**, *5*, 195



$C_{15}H_{19}NO_5$

Methyl-(3S)-3-(N-benzyloxycarbonyl) amino-2-oxo-4-methylpentanoate

E.e. > 99 %

$[\alpha]_D^{20}$ = + 71.6 (c, 13.7, CH_2Cl_2)

Source of chirality : Chemical synthesis from L-Valine

Absolute configuration : S

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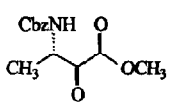
Tetrahedron: Asymmetry **1994**, *5*, 195



$C_{13}H_{15}NO_5$

Methyl-(3S)-3-(N-benzyloxycarbonyl) amino-2-oxo-butanoate

E.e. > 99 %

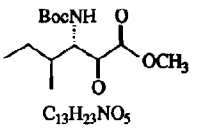
$[\alpha]_D^{20}$ = + 21.0 (c, 2.6, CH_2Cl_2)

Source of chirality : Chemical synthesis from L-Alanine

Absolute configuration : S

Paul Darkins, Noreen McCarthy, M. Anthony McKervey, Kevin O'Donnell, Tao Ye and Brian Walker

Tetrahedron: Asymmetry **1994**, *5*, 195



$C_{13}H_{23}NO_5$

Methyl-(3S,4S)-3-(N-*tert*-butoxycarbonyl) amino-2-oxo-4-methyl hexanoate

E.e. > 99 %
$[\alpha]_D^{20}$ = + 23.7 (c, 4.3, CH_2Cl_2)
Source of chirality : Chemical synthesis from L-Isoleucine
Absolute configuration : 3S, 4S

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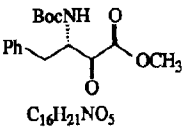
Tetrahedron: Asymmetry **1994**, *5*, 195



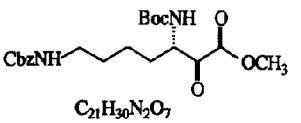
$C_{16}H_{21}NO_5$

Methyl-(3S)-3-(N-*tert*-butoxycarbonyl) amino-2-oxo-4-phenylbutanoate

E.e. > 99 %
$[\alpha]_D^{20}$ = + 40.7 (c, 7.7, CH_2Cl_2)
Source of chirality : Chemical synthesis from L-Phenylalanine
Absolute configuration : S

Paul Darkins, Noreen McCarthy, M. Anthony McKervey, Kevin O'Donnell, Tao Ye and Brian Walker

Tetrahedron: Asymmetry **1994**, *5*, 195



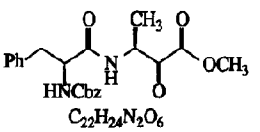
$C_{21}H_{30}N_2O_7$

Methyl-(3S)-3-(N-*tert*-butoxycarbonyl) amino-7-(N-benzyloxycarbonyl)amino -2-oxo-4-heptanoate

E.e. > 99 %
$[\alpha]_D^{20}$ = + 20.1 (c, 1.3, CH_2Cl_2)
Source of chirality : Chemical synthesis from L-Lysine
Absolute configuration : S

Paul Darkins, Noreen McCarthy, M. Anthony McKervey, Kevin O'Donnell, Tao Ye and Brian Walker

Tetrahedron: Asymmetry **1994**, *5*, 195



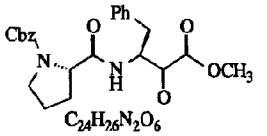
$C_{22}H_{24}N_2O_6$

N-[1-(Methyl)-3-methoxy-2,3-dioxopropyl] -N^2-(benzyloxycarbonyl)-L-phenylalaninamide

E.e. > 99 %
$[\alpha]_D^{20}$ = + 11.5 (c, 1.0, CH_2Cl_2)
Source of chirality : Chemical synthesis from L-Cbz-phenylalanyl-L-alanine
Absolute configuration : 3S, 6S

Tetrahedron: Asymmetry **1994**, *5*, 195

Paul Darkins, Noreen McCarthy, M. Anthony McKervey, Kevin O'Donnell, Tao Ye and Brian Walker



$C_{24}H_{25}N_2O_6$

N-[1-(Phenylmethyl)-3-methoxy-2,3-dioxopropyl] -N^2-(benzyloxycarbonyl)-L-prolinamide

E.e. > 99 %

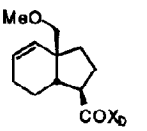
$[\alpha]_D^{20}$ = - 42.4 (c, 1.0, CH_2Cl_2)

Source of chirality : Chemical synthesis from L-Cbz-prolyl-L-phenylalanine

Absolute configuration : 3S, 6S

Tetrahedron: Asymmetry **1994**, *5*, 199

Dennis P. Curran, Steven J. Geib and Chien-Hsing Lin



X_D = D-camphor sultam

7a(*S*) 3a(*S*) 4-[(1(*S*)-(1,2,3,6,7,7a-hexahydro-3a-methoxymethyl-3a-indenyl)-1-oxomethyl)-7(*S*)-10,10-dimethyl-5-thia-4-azatricyclo[5.2.1.$0^{3,7}$]decane-5,5-dioxide

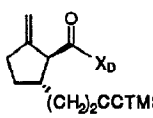
ee = 100% [by HPLC]

source of chirality: diastereotopic group selective radical cyclization

absolute configuration 7*S*,7a *S*,3a*S* mixed with 7*S*,7a*R*,3a*R* isomer (assigned by chemical correlations and stereochemical model).

Tetrahedron: Asymmetry **1994**, *5*, 199

Dennis P. Curran, Steven J. Geib and Chien-Hsing Lin



X_D = D-camphor sultam

4-((1(*S*)-5(*S*)-(4-Trimethylsilyl-3-butynyl)-2-methylenecyclopentanyl)-1-oxomethyl)-7(*S*)-10,10-dimethyl-5-thia-4-azatricyclo[5.2.1.$0^{3,7}$]decane-5,5-dioxide

ee = 100% [by HPLC]

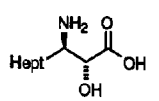
$[\alpha]_D^{24}$ = –74.6, mp 108-109°C

Source of chirality: diastereotopic group selective radical cyclization

absolute configuration 2*S*,3*S*, (assigned by x-ray)

Tetrahedron: Asymmetry **1994**, *5*, 203

Mark E. Bunnage, Anthony J. Burke, Stephen G. Davies,* and Christopher J. Goodwin



$C_{10}H_{21}O_3N$

3-Amino-2-hydroxydecanoic acid

$[\alpha]_D^{25}$ = + 3.4 (*c* 0.70, 1N HCl)

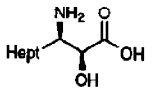
$\Delta\varepsilon_{204}$ = –1.893 x 10^{-1} (5.80 x 10^{-3}M, H_2O)

Source of chirality: (*R*)-1-phenylethylamine

Absolute Configuration: 2*R*, 3*R*

Tetrahedron: Asymmetry **1994**, *5*, 203

Mark E. Bunnage, Anthony J. Burke, Stephen G. Davies,* and Christopher J. Goodwin



$C_{10}H_{21}O_2N$

3-Amino-2-hydroxydecanoic acid

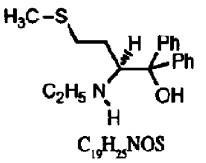
$[\alpha]_D^{25} = +5.4$ (*c* 0.59, 1N HCl)

$\Delta\varepsilon_{216} = -1.129 \times 10^{-1}$ (4.92×10^{-3}M, H_2O)

Source of chirality: (*R*)-1-phenylethylamine
Absolute Configuration: 2S, 3R

Th. Mehler, J. Martens*

Tetrahedron: Asymmetry **1994**, *5*, 207



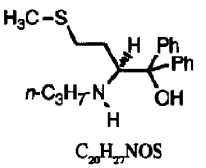
$C_{19}H_{25}NOS$

(*S*)-1,1-Diphenyl-2-ethylamino-4-(methylthio)-1-butanol **2**

E.e. under investigation
$[\alpha]_D^{20} = -15.4$ (c = 0.43, MeOH)
Source of chirality: (*S*)-methionine
Absolute configuration S

Th. Mehler, J. Martens*

Tetrahedron: Asymmetry **1994**, *5*, 207



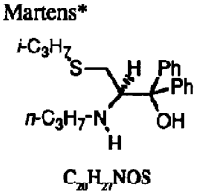
$C_{20}H_{27}NOS$

(*S*)-1,1-diphenyl-4-(methylthio)-2-propylamino-1-butanol **3**

E.e. under investigation
$[\alpha]_D^{20} = -15.7$ (c = 0.66, MeOH)
Source of chirality: (*S*)-methionine
Absolute configuration S

Th. Mehler, J. Martens*

Tetrahedron: Asymmetry **1994**, *5*, 207



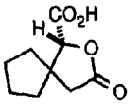
$C_{21}H_{27}NOS$

(*R*)-1,1-diphenyl-3-(isopropylthio)-2-propylamino-1-propanol **5**

E.e. under investigation
$[\alpha]_D^{20} = -63.0$ (c = 0.58, MeOH)
Source of chirality: (*R*)-cysteine
Absolute configuration R

F. J. Urban

Tetrahedron: Asymmetry **1994**, *5*, 211

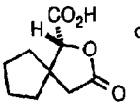


(–)-(*R*)-3-Oxo-2-oxaspiro[4.4]-nonane-1-carboxylic acid

E.e. > 97% [by NMR of ephedrine salt]
$[\alpha]_D$ –30.76 (c=0.998, $CHCl_3$)
source of chirality: resolution
Absolute configuration: 1*R* (assigned by X-ray of derivative.

F. J. Urban

Tetrahedron: Asymmetry **1994**, *5*, 211



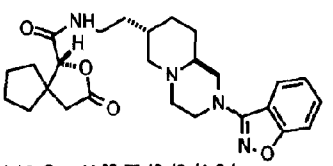
d-(+)-ephedrine

(–)-(*R*)-3-Oxo-2-oxaspiro[4.4]-nonane-1-carboxylic acid (+)-ephedrine salt

E.e. > 97% [by NMR in $CDCl_3$]
$[\alpha]_D$ –6.47 (c=0.51, MeOH)
mp 161-3°C
source of chirality: resolution
Absolute configuration: *R* (assigned by X-ray of derivative.

F. J. Urban

Tetrahedron: Asymmetry **1994**, *5*, 211

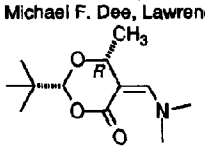


(–)3-Oxo-N-[2-[7-(2-(3-(1,2-benz-isoxazolyl))-2,3,4,6,7*S*,8,9,(9a*S*)-octahydro-1H-pyrido[1,2-a]pyrazinyl)]-ethyl]2-oxaspiro-[4.4]-nonane-1*R*-carboxamide

E.e. > 97%
$[\alpha]_D$ –14.76 (c=0.42, CH_2Cl_2)
mp 128-9°C
source of chirality: resolution
Absolute configuration: 1*R* (Assigned by X-ray analysis).

Frank J. Urban*, Jon Bordner, Debra DeCosta, Michael F. Dee, Lawrence A. Vincent

Tetrahedron: Asymmetry **1994**, *5*, 215

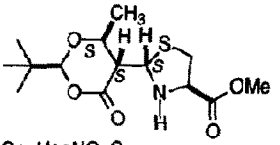


$C_{12}H_{21}NO_3$
2R-tert-Butyl-5-dimethylaminomethylene-6R-methyl-[1,3]dioxan-4-one

E.e. = > 98% [NMR]
$[\alpha]_D$ – 20.8 (c = 1.08, chloroform)
Source of chirality: 3R-hydroxybutyrate and asymmetric synthesis.
Absolute configuration 2R, 6R.

Frank J. Urban*, Jon Bordner, Debra DeCosta, Michael F. Dee, Lawrence A. Vincent

Tetrahedron: Asymmetry **1994**, *5*, 215



$C_{14}H_{23}NO_5S$

2S-(2S-tert-Butyl-4S-methyl-6-oxo-[1,3]dioxan-5S-yl) - thiazolidine - 4R - carboxylic acid methyl ester

E.e. = > 98% [NMR]

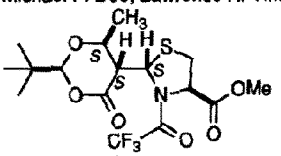
$[\alpha]_D$ – 92.1 (c = 1.04, chloroform).

Source of chirality: natural and asymmetric synthesis.

Absolute configuration 2S, 4R,2'S,4'S,5'S- determined by X-ray analysis of derivative.

Frank J. Urban*, Jon Bordner, Debra DeCosta, Michael F. Dee, Lawrence A. Vincent

Tetrahedron: Asymmetry **1994**, *5*, 215



$C_{16}H_{22}F_3NO_6S$

2S-(2S-tert-Butyl-4S-methyl-6-oxo-[1,3]dioxan-5S-yl)-3-(2,2,2-trifluoro-acetyl)-thiazolidine-4R-carboxylic acid methyl ester

E.e. = > 98% [NMR]

mp 134-9°C

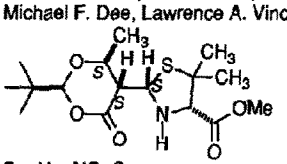
$[\alpha]_D$ – 58.8 (c = 0.62, chloroform).

Source of chirality: natural and asymmetric synthesis.

Absolute configuration 2S, 4R,2'S,4'S,5'S- determined by X-ray analysis.

Frank J. Urban*, Jon Bordner, Debra DeCosta, Michael F. Dee, Lawrence A. Vincent

Tetrahedron: Asymmetry **1994**, *5*, 215



$C_{16}H_{27}NO_5S$

2S-(2S-tert-Butyl-4S-methyl-6-oxo-[1,3]dioxan-5S-yl)-5,5-dimethyl-thiazolidine-4S-carboxylic acid methyl ester

E.e. = > 98% [NMR]

mp 104-6°C

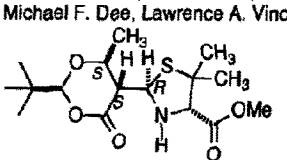
$[\alpha]_D$ – 15.5 (c = 0.96, chloroform).

Source of chirality: natural and asymmetric synthesis.

Absolute configuration 2S, 4S,2'S,4'S,5'S- determined by X-ray analysis.

Frank J. Urban*, Jon Bordner, Debra DeCosta, Michael F. Dee, Lawrence A. Vincent

Tetrahedron: Asymmetry **1994**, *5*, 215



$C_{16}H_{27}NO_5S$

2R-(2S-tert-Butyl-4S-methyl-6-oxo-[1,3]dioxan-5S-yl)-5,5-dimethyl-thiazolidine-4S-carboxylic acid methyl ester

E.e. = > 98% [NMR]

mp 131-33°C

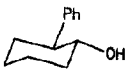
$[\alpha]_D$ +96.4 (c = 0.33, CH_2Cl_2).

Source of chirality: natural and asymmetric synthesis.

Absolute configuration 2R, 4S,2'S,4'S,5'S- determined by X-ray analysis.

D. Basavaiah and P. Dharma Rao

Tetrahedron: Asymmetry **1994**, *5*, 223

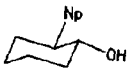


E.e.= >99% {by $[\alpha]_D$ measurement}
$[\alpha]_D^{22}$ - 58.6 (c 1.19, MeOH)
Source of chirality : Chicken Liver Esterase
Absolute Configuration : 1R,2S
(assigned by comparing sign of opt. rotation)

$C_{12}H_{16}O$
trans-2-Phenylcyclohexan-1-ol

D. Basavaiah and P. Dharma Rao

Tetrahedron: Asymmetry **1994**, *5*, 223

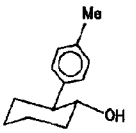


E.e.= >99% (by ^1H NMR of Mosher's ester)
$[\alpha]_D^{22}$ - 72.9 (c 1.47, MeOH)
Source of chirality : Chicken Liver Esterase
Absolute Configuration : 1R,2S
(assigned by ^1H NMR of Mosher's ester)

$C_{16}H_{18}O$
trans-2-(1-Naphthyl)cyclohexan-1-ol

D. Basavaiah and P. Dharma Rao

Tetrahedron: Asymmetry **1994**, *5*, 223

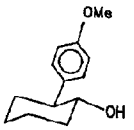


E.e.= >99% (by ^1H NMR of Mosher's ester)
$[\alpha]_D^{22}$ - 59.5 (c 1.37, MeOH)
Source of chirality : Chicken Liver Esterase
Absolute Configuration : 1R,2S
(assigned by ^1H NMR of Mosher's ester)

$C_{13}H_{18}O$
trans-2-(4-Methylphenyl)cyclohexan-1-ol

D. Basavaiah and P. Dharma Rao

Tetrahedron: Asymmetry **1994**, *5*, 223

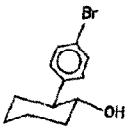


E.e.= >99% (by ^1H NMR of Mosher's ester)
$[\alpha]_D^{22}$ - 55.4 (c 1.46, MeOH)
Source of chirality : Chicken Liver Esterase
Absolute Configuration : 1R,2S
(assigned by ^1H NMR of Mosher's ester)

$C_{13}H_{18}O_2$
trans-2-(4-Methoxyphenyl)cyclohexan-1-ol

D. Basavaiah and P. Dharma Rao

Tetrahedron: Asymmetry **1994**, *5*, 223



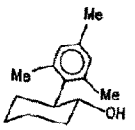
E.e.= >99% (by ^{1}H NMR of Mosher's ester)
$[\alpha]_D^{22}$ - 26.2 (c 1.67, $CHCl_3$)
Source of chirality : Chicken Liver Esterase
Absolute Configuration : 1R,2S
(assigned by ^{1}H NMR of Mosher's ester)

$C_{12}H_{15}BrO$

trans-2-(4-Bromophenyl)cyclohexan-1-ol

D. Basavaiah and P. Dharma Rao

Tetrahedron: Asymmetry **1994**, *5*, 223



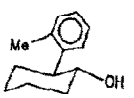
E.e.= >99% (by ^{1}H NMR of Mosher's ester in the presence of Eu(hfc)$_3$)
$[\alpha]_D^{22}$ - 32.4 (c 1.26, MeOH)
Source of chirality : Chicken Liver Esterase
Absolute Configuration : 1R,2S
(tentatively assigned)

$C_{15}H_{22}O$

trans-2-(2,4,6-Trimethylphenyl)cyclohexan-1-ol

D. Basavaiah and P. Dharma Rao

Tetrahedron: Asymmetry **1994**, *5*, 223



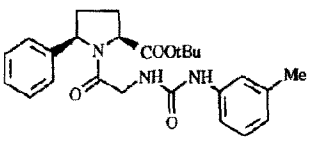
E.e.= 90% (by $[\alpha]_D$ measurement)
$[\alpha]_D^{22}$ - 63.9 (c 1.45, $CHCl_3$)
Source of chirality : Chicken Liver Esterase
Absolute Configuration : 1R,2S
(assigned by comparing sign of opt. rotation)

$C_{13}H_{18}O$

trans-2-(2-Methylphenyl)cyclohexan-1-ol

F. Manfré and J. P. Pulicani

Tetrahedron: Asymmetry **1994**, *5*, 235



$C_{23}H_{29}N_3O_5$ **(+)-RP 66803**

tert-Butyl 1-{2-[3-(3-methylphenyl)-ureido]-1-oxo-ethyl}-5-phenyl-pyrrolidine-2-carboxylate

Absolute configuration: 2S, 5R
(assigned by chemical correlation from S-proline)

Ee > 98 % (by chiral HPLC)

$[\alpha]_D^{25}$ = + 36 (C = 1 % ; MeOH)

Toshio SUZUKI, Naoya KASAI and Noshi MINAMIURA

Tetrahedron: Asymmetry **1994**, *5*, 239

$C_3H_6Cl_2O$

2,3-Dichloro-1-propanol

Absolute configuration: *R*

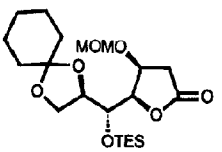
E.e.: 99%

[Absolute configuration and e.e. were determined by the following methods: by complexation GC analysis after conversion to epichlorohydrin]

Source of chirality: enzymatic resolution

Toshio Honda,* Toshio Yamada, Tomohisa Hayakawa, and Kazuo Kanai

Tetrahedron: Asymmetry **1994**, *5*, 247



$C_{21}H_{38}O_7Si$

(3*S*,4*R*,5*R*,6*R*)-6,7-Cyclohexylidenedioxy-5-triethylsiloxy-3-methoxymethoxyheptan-4-olide

E.e. = 100% (by precursor)

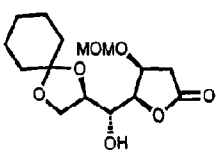
$[\alpha]_D$ = -6.1 (c = 2.9, $CHCl_3$)

Source of chirality: (*R*)-glyceraldehyde as starting material

Absolute configuration 3*S*,4*R*,5*R*,6*R*

Toshio Honda,* Toshio Yamada, Tomohisa Hayakawa, and Kazuo Kanai

Tetrahedron: Asymmetry **1994**, *5*, 247



$C_{15}H_{24}O_7$

(3*S*,4*R*,5*R*,6*R*)-6,7-Cyclohexylidenedioxy-5-hydroxy-3-methoxymethoxyheptan-4-olide

E.e. = 100% (by precursor)

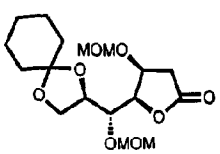
$[\alpha]_D$ = -3.5 (c = 0.8, $CHCl_3$)

Source of chirality: (*R*)-glyceraldehyde as starting material

Absolute configuration 3*S*,4*R*,5*R*,6*R*

Toshio Honda,* Toshio Yamada, Tomohisa Hayakawa, and Kazuo Kanai

Tetrahedron: Asymmetry **1994**, *5*, 247



$C_{17}H_{28}O_8$

(3*S*,4*R*,5*R*,6*R*)-6,7-Cyclohexylidenedioxy-3,5-bis(methoxymethoxy)heptan-4-olide

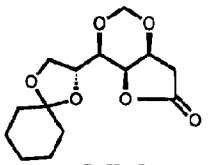
E.e. = 100% (by precursor)

$[\alpha]_D$ = +25.3 (c = 1.1, $CHCl_3$)

Source of chirality: (*R*)-glyceraldehyde as starting material

Absolute configuration 3*S*,4*R*,5*R*,6*R*

Toshio Honda,* Toshio Yamada, Tomohisa Hayakawa, and Kazuo Kanai | *Tetrahedron: Asymmetry* **1994**, *5*, 247

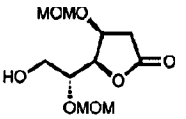


E.e. = 100% (by precursor)
$[\alpha]_D$ = -52.2 (c = 1.0, $CHCl_3$)
Source of chirality: (*R*)-glyceraldehyde as starting material
Absolute configuration 3*S*,4*R*,5*R*,6*R*

$C_{14}H_{20}O_6$

(3*S*,4*R*,5*R*,6*R*)-6,7-Cyclohexylidenedioxy-3,5-methylenedioxyheptan-4-olide

Toshio Honda,* Toshio Yamada, Tomohisa Hayakawa, and Kazuo Kanai | *Tetrahedron: Asymmetry* **1994**, *5*, 247

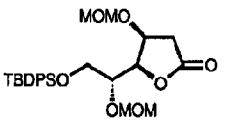


E.e. = 100% (by precursor)
$[\alpha]_D$ = +46.7 (c = 1.1, $CHCl_3$)
Source of chirality: (*R*)-glyceraldehyde as starting material
Absolute configuration 3*S*,4*R*,5*R*

$C_{10}H_{18}O_7$

(3*S*,4*R*,5*R*)-6-Hydroxy-3,5-bis(methoxymethoxy)hexan-4-olide

Toshio Honda,* Toshio Yamada, Tomohisa Hayakawa, and Kazuo Kanai | *Tetrahedron: Asymmetry* **1994**, *5*, 247

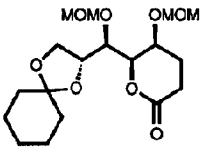


E.e. = 100% (by precursor)
$[\alpha]_D$ = -7.4 (c = 0.3, $CHCl_3$)
Source of chirality: (*R*)-glyceraldehyde as starting material
Absolute configuration 3*S*,4*R*,5*R*

$C_{26}H_{36}O_7Si$

(3*S*,4*R*,5*R*)-6-*tert*-Butyldiphenylsiloxy-3,5-bis(methoxymethoxy)hexan-4-olide

Toshio Honda,* Toshio Yamada, Tomohisa Hayakawa, and Kazuo Kanai | *Tetrahedron: Asymmetry* **1994**, *5*, 247



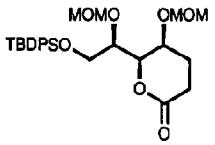
E.e. = 100% (by precursor)
$[\alpha]_D$ = +2.0 (c = 1.3, $CHCl_3$)
Source of chirality: (*R*)-glyceraldehyde as starting material
Absolute configuration 4*S*,5*R*,6*R*,7*R*

$C_{18}H_{30}O_8$

(4*S*,5*R*,6*R*,7*R*)-7,8-Cyclohexylidenedioxy-4,6-bis(methoxymethoxy)octan-5-olide

Toshio Honda,* Toshio Yamada, Tomohisa Hayakawa, and Kazuo Kanai

Tetrahedron: Asymmetry **1994**, *5*, 247



$C_{27}H_{38}O_7Si$

E.e. = 100% (by precursor)
$[\alpha]_D$ = -6.6 (c = 1.7, $CHCl_3$)
Source of chirality: (*R*)-glyceraldehyde as starting material
Absolute configuration 4*S*,5*R*,6*R*

(4*S*,5*R*,6*R*)-7-*tert*-Butyldiphenylsiloxy-4,6-bis(methoxymethoxy)heptan-5-olide

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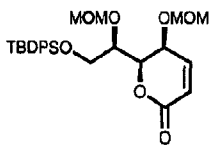
Toshio Honda,* Toshio Yamada, Tomohisa Hayakawa, and Kazuo Kanai

Tetrahedron: Asymmetry **1994**, *5*, 247



$C_{27}H_{36}O_7Si$

E.e. = 100% (by precursor)
$[\alpha]_D$ = +81.8 (c = 0.8, $CHCl_3$)
Source of chirality: (*R*)-glyceraldehyde as starting material
Absolute configuration 4*S*,5*R*,6*R*

(4*S*,5*R*,6*R*)-7-*tert*-Butyldiphenylsiloxy-4,6-bis(methoxymethoxy)hept-2-en-5-olide

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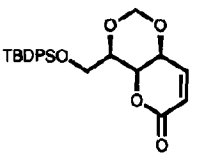
Toshio Honda,* Toshio Yamada, Tomohisa Hayakawa, and Kazuo Kanai

Tetrahedron: Asymmetry **1994**, *5*, 247



$C_{24}H_{28}O_5Si$

E.e. = 100% (by precursor)
$[\alpha]_D$ = -8.2 (c = 0.7, $CHCl_3$)
Source of chirality: (*R*)-glyceraldehyde as starting material
Absolute configuration 4*S*,5*R*,6*R*

(4*S*,5*R*,6*R*)-7-*tert*-Butyldiphenylsiloxy-4,6-methylenedioxyhept-2-en-5-olide

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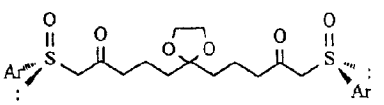
Guy Solladié*, Nathalie Huser

Tetrahedron: Asymmetry **1994**, *5*, 255

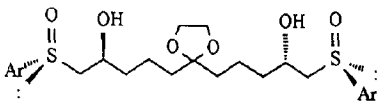


1,11-bis-[(R,R)-p-tolylsulfinyl]-2,10-diketo-6-(1,3-dioxolane)undecane.

$[\alpha]_D$ = +193 (c=0.58, CH_2Cl_2)
e.e > 95%
liquid
absolute configuration: S(R)
Source of chirality: (+)-(R) methyl p-tolylsulfoxide

Guy Solladié*, Nathalie Huser

Tetrahedron: Asymmetry **1994**, *5*, 255

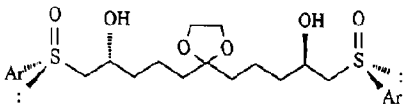


1,11-bis-[(R,R)-p-tolylsulfinyl]-2S,10S-dihydroxy-6-(1,3-dioxolane)undecane.

$[\alpha]_D$ = +217(c=0.44, CH_2Cl_2)
e.e > 95%
m.p. 78-81°C
absolute configuration: 2(S),10 (S) S(R)
Source of chirality: (+)-(R)
methyl p-tolylsulfoxide

Guy Solladié*, Nathalie Huser

Tetrahedron: Asymmetry **1994**, *5*, 255

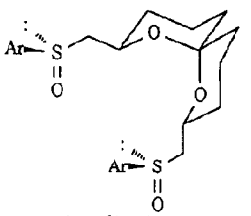


1,11-bis-[(R,R)-p-tolylsulfinyl]-2R,10R-dihydroxy-6-(1,3-dioxolane)undecane.

$[\alpha]_D$ = +180(c=0.39, CH_2Cl_2)
e.e > 95%
Liquid
Absolute configuration: 2(R),10(R), S(R)
Source of chirality: (+)-(R)
methyl p-tolylsulfoxide

Guy Solladié*, Nathalie Huser

Tetrahedron: Asymmetry **1994**, *5*, 255

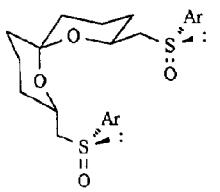


(2R, 6R, 8R) bis-[(R,R)-p-tolylsulfinylmethyl]-6-(1,7-dioxaspiro-[5,5])undecane

$[\alpha]_D$ = +149(c=0.8, CCl_4)
e.e > 95%
m.p. 110-112°C
absolute configuration: 2(R),6(R), 8(R),S(R)
Source of chirality: (+)-(R)
methyl p-tolylsulfoxide

Guy Solladié*, Nathalie Huser

Tetrahedron: Asymmetry **1994**, *5*, 255

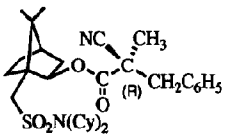


(2S, 6S, 8S) bis-[(R,R)-p-tolylsulfinylmethyl]-6-(1,7-dioxaspiro-[5,5])undecane

$[\alpha]_D$ = +213(c=0.43, CCl_4)
e.e > 95%
m.p. 25-26°C
absolute configuration: 2(S),6(S),8(S),S(R)
Source of chirality: (+)-(R)
methyl p-tolylsulfoxide

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

Tetrahedron: Asymmetry **1994**, *5*, 261

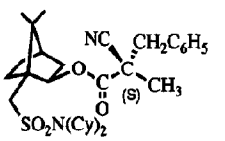


d.e.>95% by NMR
$[\alpha]_D^{20}$ - 62.8 (c = 1.56 in $CHCl_3$)
Source of chirality : natural and diastereoselective alkylation
Absolute configuration : 2R

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

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

Tetrahedron: Asymmetry **1994**, *5*, 261

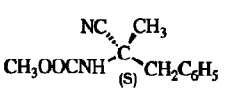


d.e.>95% by NMR
$[\alpha]_D^{20}$ - 51.4 (c = 1 in $CHCl_3$)
Source of chirality : natural and diastereoselective alkylation
Absolute configuration : 2S

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

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

Tetrahedron: Asymmetry **1994**, *5*, 261

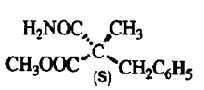


e.e.>95%
$[\alpha]_D^{20}$ - 46.1 (c = 2 in $CHCl_3$)
Source of chirality : natural and diastereoselective alkylation
Absolute configuration : 2S

$C_{12}H_{14}N_2O_2$
(2S)- 2-methoxycarbonylamino-2-methyl-3-phenylpropanonitrile

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

Tetrahedron: Asymmetry **1994**, *5*, 261

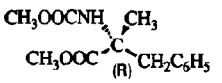


e.e.>95%
$[\alpha]_D^{20}$ - 8.8 (c = 2 in $CHCl_3$)
Source of chirality : natural and diastereoselective alkylation
Absolute configuration : 2S

$C_{12}H_{15}NO_3$
(2S)- methyl 2-carbamoyl-2-methyl-3-phenylpropanoate

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

Tetrahedron: Asymmetry **1994**, *5*, 261

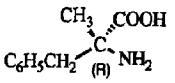


e.e.>95%
$[\alpha]_D^{20}$ - 24.5 (c = 2 in $CHCl_3$)
Source of chirality : natural and diastereoselective alkylation
Absolute configuration : 2R

$C_{13}H_{17}NO_4$
(2R)- methyl 2-methoxycarbonylamino-2-methyl-3-phenylpropanoate

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

Tetrahedron: Asymmetry **1994**, *5*, 261

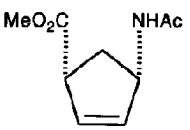


e.e.>95%
$[\alpha]_D^{20}$ 21 (c = 1 in H_2O)
Source of chirality : natural and diastereoselective alkylation
Absolute configuration : 2R

$C_{10}H_{13}NO_2$
(R)- α-methylphenylalanine

R. Csuk and P. Dörr

Tetrahedron: Asymmetry **1994**, *5*, 269



$C_9H_{13}NO_3$

E.e. ≥ 99% by HPLC (β-cyclodextrine)

$[\alpha]_D^{20}$ +86.6 (*c*, 1.3 in $CHCl_3$)

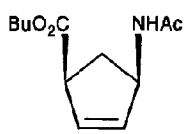
(+)-Methyl 4-acetamido-cyclopent-2-ene-1-carboxylate

Source of chirality: enzymatic hydrolysis

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

R. Csuk and P. Dörr

Tetrahedron: Asymmetry **1994**, *5*, 269



$C_{12}H_{19}NO_3$

E.e. ≥ 99% by HPLC (β-cyclodextrine)

$[\alpha]_D^{20}$ -68.7 (*c*, 1.1 in $CHCl_3$)

(-)-Butyl 4-acetamido-cyclopent-2-ene-1-carboxylate

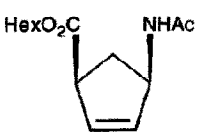
Source of chirality: enzymatic hydrolysis

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

R. Csuk and P. Dörr

Tetrahedron: Asymmetry **1994**, *5*, 269

E.e. ≥ 99% by HPLC (β-cyclodextrine)



$[\alpha]_D^{20}$ -67.4 (*c*, 0.93 in $CHCl_3$)

(-)-Hexyl 4-acetamido-cyclopent-2-ene-1-carboxylate

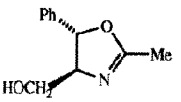
Source of chirality: enzymatic hydrolysis

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

$C_{14}H_{23}NO_3$

Joanne V. Allen and Jonathan M. J. Williams

Tetrahedron: Asymmetry **1994**, *5*, 277



$[\alpha]_D^{25}$ = -174.6 (c = 10.5, $CHCl_3$)

Source of chirality: (1S,2S)-(+)-2-amino-1-phenyl-1,3-propanediol

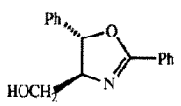
Absolute configuration: 4S, 5S

$C_{11}H_{13}NO_2$

2-methyl-(4S)-4-hydroxymethyl-(5S)-5-phenyl-1,3-oxazoline

Joanne V. Allen and Jonathan M. J. Williams

Tetrahedron: Asymmetry **1994**, *5*, 277



$[\alpha]_D^{25}$ = -44.6 (c = 5.4, $CHCl_3$)

Source of chirality: (1S,2S)-(+)-2-amino-1-phenyl-1,3-propanediol

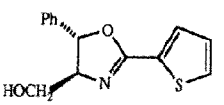
Absolute configuration: 4S, 5S

$C_{16}H_{15}NO_2$

(5S)-2,5-diphenyl-(4S)-4-hydroxymethyl-1,3-oxazoline

Joanne V. Allen and Jonathan M. J. Williams

Tetrahedron: Asymmetry **1994**, *5*, 277



$[\alpha]_D^{25}$ = +50.0 (c = 1.02, $CHCl_3$)

Source of chirality: (1S,2S)-(+)-2-amino-1-phenyl-1,3-propanediol

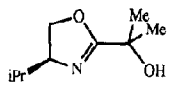
Absolute configuration: 4S, 5S

$C_{14}H_{13}NO_2S$

2-(2-thienyl)-(4S)-4-hydroxymethyl-(5S)-5-phenyl-1,3-oxazoline

Joanne V. Allen and Jonathan M. J. Williams

Tetrahedron: Asymmetry **1994**, *5*, 277



$[\alpha]_D^{25}$ = -102.4 (c = 0.42, $CHCl_3$)

Source of chirality: (+)-valinol

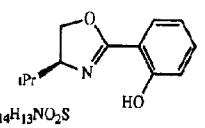
Absolute configuration: 4S

$C_9H_{17}NO_2$

2-(1-hydroxy-1-methylethyl)-(4*S*)-4-isopropyl-1,3-oxazoline

Joanne V. Allen and Jonathan M. J. Williams

Tetrahedron: Asymmetry **1994**, *5*, 277



$[\alpha]_D^{25}$ = -35.4 (c = 1.07, $CHCl_3$)

Source of chirality: (*S*)-(+)-valinol

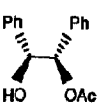
Absolute configuration: 4S

$C_{14}H_{13}NO_2S$

2-(2-hydroxyphenyl)-(4S)-isopropyl-1,3-oxazoline

G. Nicolosi, A. Patti, M. Piattelli and C. Sanfilippo

Tetrahedron: Asymmetry **1994**, *5*, 283



e.e. = 90% by $Eu(hfc)_3$

$[\alpha]_D$ = - 5.1 (c 0.65, C_5H_5)

Source of chirality: Lipase mediated desymmetrization

$C_{16}H_{16}O_3$

Absolute configuration: 1*R*,2*S*

(*R*)-1-acetoxy-(*S*)-2-hydroxy-1,2-diphenylethane