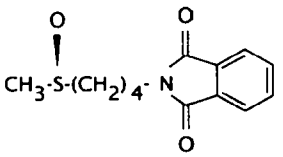
H.L. Holland, F.M. Brown and B.G. Larsen

Tetrahedron: Asymmetry **1994**, *5*, 1129



E.e. 88% [by nmr with (*S*)-α-methoxyphenyl acetic acid]
$[\alpha]_D$ +64.2 (c 0.9, EtOH)

Source of chirality: bioconversion of sulfide

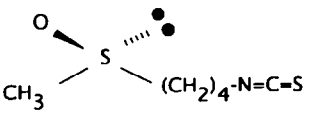
$C_{13}H_{15}NO_3S$

Absolute configuration (*R*)
(assigned by nmr analysis)

1-methylsulfinyl-4-(N-phthalimidyl)butane

H.L. Holland, F.M. Brown and B.G. Larsen

Tetrahedron: Asymmetry **1994**, *5*, 1129



E.e. 86% [by rotation and nmr with (*S*)-α-methoxyphenylacetic acid]
$[\alpha]_D$ -69.4 (c 0.7, $CHCl_3$)

Source of chirality: bioconversion of sulfide

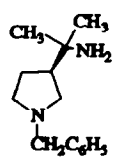
$C_6H_{11}NOS_2$

Absolute configuration (*R*)
(assigned by literature comparison)

1-isothiocyanato-4-(methylsulfinyl)butane (sulforaphane)

Victor Fedij, Edward A. Lenoir III, Mark J. Suto, James R. Zeller, and James Wemple*

Tetrahedron: Asymmetry **1994**, *5*, 1131



E.e. = 94% [by nmr with (*S*)-2,2,2-trifluoro-1-(9-anthryl)ethanol]
$[\alpha]_D^{25}$ - 9.5(c 1.1, MeOH)

Source of chirality: synthesis using asymmetric starting material

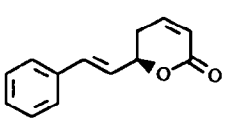
Absolute configuration: *R*

$C_{14}H_{22}N_2$

(*R*)-3-(1-amino-1-methylethyl)-1-benzylpyrrolidine

Claudio Fuganti, Giuseppe Pedrocchi-Fantoni, Antonella Sarra and Stefano Servi

Tetrahedron: Asymmetry **1994**, *5*, 1135

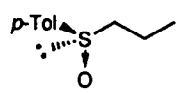


$[\alpha]_D$ +134 (c 1, MeOH)
source of chirality: B.Y. kinetic resolution.
ee 0.99 (by HPLC) (absolute configuration R)

$C_{13}H_{12}O_2$

H. Kosugi, O. Kanno, and H. Uda

Tetrahedron: Asymmetry **1994**, *5*, 1139

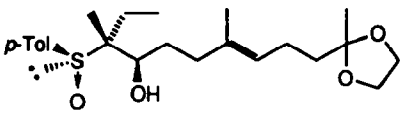


(*R*)-Propyl *p*-tolyl sulfoxide

E.e.=100% [from HPLC analysis using a chiral column (Daicel CHIRALCEL OD; 1:9 2-propanol:hexane)]
$[\alpha]_D^{23}$=+221 (*c* 0.781, $CHCl_3$)
Source of chirality: (-)-menthol and well-established Andersen method
Absolute configuration: *R* (compared with the sign of the reported specific rotation value)

H. Kosugi, O. Kanno, and H. Uda

Tetrahedron: Asymmetry **1994**, *5*, 1139

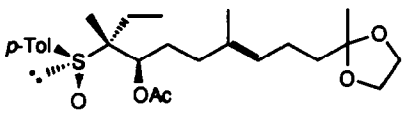


2-Methyl-2-[(3*E*, 7*R*, 8*R*, S_S)-7-hydroxy-4,8-dimethyl-8-(*p*-tolylsulfinyl)-3-decenyl]-1,3-dioxolane

D.e.=100% (^{1}H NMR and HPLC)
E.e.=100% (from e.e. of the precursor)
$[\alpha]_D^{23}$=+109 (*c* 0.621, $CHCl_3$)
Source of chirality: (*R*)-propyl *p*-tolyl sulfoxide and asymmetric synthesis
Absolute configuration: 7*R*, 8*R*, S_S

H. Kosugi, O. Kanno, and H. Uda

Tetrahedron: Asymmetry **1994**, *5*, 1139

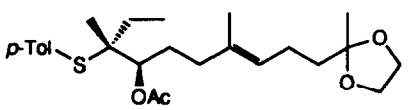


2-Methyl-2-[(3*E*, 7*R*, 8*R*, S_S)-7-acetoxy-4,8-dimethyl-8-(*p*-tolylsulfinyl)-3-decenyl]-1,3-dioxolane

D.e.=100% (^{1}H NMR and HPLC)
E.e.=100% (from e.e. of the precursor)
$[\alpha]_D^{23}$=+82.7 (*c* 0.932, $CHCl_3$)
Source of chirality: (*R*)-propyl *p*-tolyl sulfoxide and asymmetric synthesis
Absolute configuration: 7*R*, 8*R*, S_S

H. Kosugi, O. Kanno, and H. Uda

Tetrahedron: Asymmetry **1994**, *5*, 1139

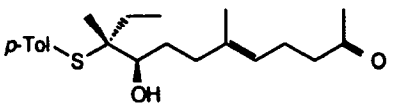


2-Methyl-2-[(3*E*, 7*R*, 8*R*)-7-acetoxy-4,8-dimethyl-8-(*p*-tolylthio)-3-decenyl]-1,3-dioxolane

D.e.=100% (from ^{1}H NMR and d.e. of the precursor)
E.e.=100% (from e.e. of the precursor)
$[\alpha]_D^{23}$=+4.81 (*c* 2.35, $CHCl_3$)
Source of chirality: *R*-propyl *p*-tolyl sulfoxide and asymmetric synthesis
Absolute configuration: 7*R*, 8*R*, S_S

H. Kosugi, O. Kanno, and H. Uda

Tetrahedron: Asymmetry **1994**, *5*, 1139

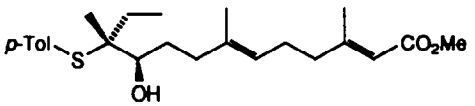


(5*E*, 9*R*, 10*R*)-6,10-Dimethyl-9-hydroxy-10-(*p*-tolylthio)-5-dodecen-2-one

D.e.=100% (^{1}H NMR)
E.e.=100% (from e.e. of the precursor)
$[\alpha]_D^{23}$=+45.5 (*c* 1.03, $CHCl_3$)
Source of chirality: (*R*)-propyl *p*-tolyl sulfoxide and asymmetric synthesis
Absolute configuration: 9*R*, 10*R*

H. Kosugi, O. Kanno, and H. Uda

Tetrahedron: Asymmetry **1994**, *5*, 1139

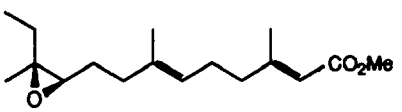


Methyl (2*E*, 6*E*, 10*R*, 11*R*)-10-hydroxy-11-(*p*-tolylthio)-3,7,11-trimethyl-2,6-tridecadienoate

D.e.=100% (^{1}H NMR)
E.e.=100% (from e.e. of the precursor)
$[\alpha]_D^{23}$=+41.7 (*c* 0.607, $CHCl_3$)
Source of chirality: (*R*)-propyl *p*-tolyl sulfoxide and asymmetric synthesis
Absolute configuration: 10*R*, 11*R*

H. Kosugi, O. Kanno, and H. Uda

Tetrahedron: Asymmetry **1994**, *5*, 1139

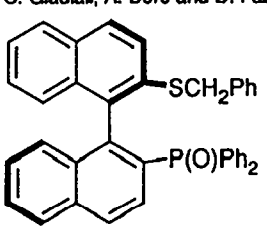


Methyl (2*E*,6*E*,10*R*,11*R*)-10,11-epoxy-3,7,11-trimethyl-2,6-tridecadienoate (JH II)

D.e.=100% (^{1}H NMR)
E.e.=100% [^{1}H NMR (600 MHz) with (*S*)-(+)-2,2,2-trifluoro-1-(9-anthryl)ethanol]
$[\alpha]_D^{23}$=+15.1 (*c* 1.47, MeOH)
Source of chirality: (*R*)-propyl *p*-tolyl sulfoxide and asymmetric synthesis
Absolute configuration: 10*R*, 11*R* (the sign of the specific rotation value of JH II)

S. Gladiali, A. Dore and D. Fabbri

Tetrahedron: Asymmetry **1994**, *5*, 1143



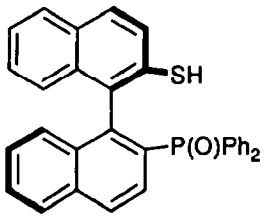
$C_{39}H_{29}OPS$

(R)-(+)-2-Benzylthio-2'-diphenylphosphinyl-1,1'-binaphthalene

E.e. ragionably > 99% (not directly determined)
$[\alpha]_D^{25}$= +116.6 (c= 0.50, $CHCl_3$)
Source of chirality: (R)-(+)-2,2'-Dihydroxy-1,1'-binaphthalene
Absolute configuration: R

S. Gladiali, A. Dore and D. Fabbri

Tetrahedron: Asymmetry **1994**, *5*, 1143



E.e. > 99% (by HPLC on 0.25 m Chiracel OD column of compound 14)

$[\alpha]_D^{25}$ = +42.3 (c= 0.50, $CHCl_3$)

Source of chirality: (R)-(+)-2,2'-Dihydroxy-1,1'-binaphthalene

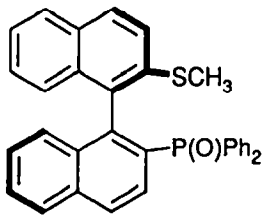
Absolute configuration: R

$C_{32}H_{23}OPS$

(R)-(+)-2'-diphenylphosphinyl-1,1'-binaphthyl-2-thiol

S. Gladiali, A. Dore and D. Fabbri

Tetrahedron: Asymmetry **1994**, *5*, 1143



E.e. > 99% (by HPLC on 0.25 m Chiracel OD column of compound 14)

$[\alpha]_D^{25}$ = +126.2 (c= 0.50, $CHCl_3$)

Source of chirality: (R)-(+)-2,2'-Dihydroxy-1,1'-binaphthalene

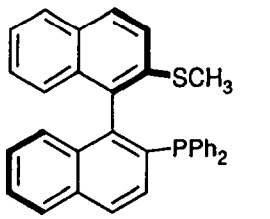
Absolute configuration: R

$C_{33}H_{25}OPS$

(R)-(+)-2-methylthio-2'-diphenylphosphinyl-1,1'-binaphthalene

S. Gladiali, A. Dore and D. Fabbri

Tetrahedron: Asymmetry **1994**, *5*, 1143



E.e. > 99% (by HPLC on 0.25 m Chiracel OD column)

$[\alpha]_D^{25}$ = +52.6 (c= 0.50, $CHCl_3$)

Source of chirality: (R)-(+)-2,2'-Dihydroxy-1,1'-binaphthalene

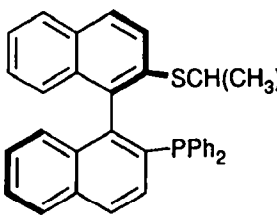
Absolute configuration: R

$C_{33}H_{25}PS$

(R)-(+)-2-Methylthio-2'-diphenylphosphino-1,1'-binaphthalene

S. Gladiali, A. Dore and D. Fabbri

Tetrahedron: Asymmetry **1994**, *5*, 1143



E.e. > 99% (by HPLC on 0.25 m Chiracel OD column)

$[\alpha]_D^{25}$ = +81.2 (c= 0.50, $CHCl_3$)

Source of chirality: (R)-(+)-2,2'-Dihydroxy-1,1'-binaphthalene

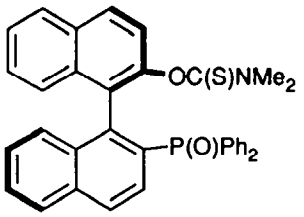
Absolute configuration: R

$C_{35}H_{29}PS$

(R)-(+)-2-Isopropylthio-2'-diphenylphosphino-1,1'-binaphthalene

S. Gladiali, A. Dore and D. Fabbri

Tetrahedron: Asymmetry **1994,** *5,* 1143



$C_{35}H_{28}NO_2PS$

E.e. > 99% (by HPLC on 0.25 m Chiracel OD column of compoud 14)

$[\alpha]_D^{25}$ = -149.3 (c= 0.50, $CHCl_3$)

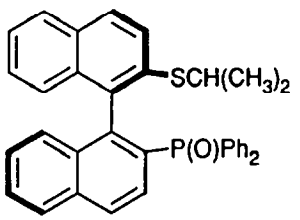
Source of chirality: (R)-(+)-2,2'-Dihydroxy-1,1'-binaphthalene

Absolute configuration: R

(R)-(-)-2-hydroxy-2'-diphenylphosphinyl-1,1'-binaphthalene N,N-dimethylthiocarbamate

S. Gladiali, A. Dore and D. Fabbri

Tetrahedron: Asymmetry **1994,** *5,* 1143



$C_{35}H_{29}OPS$

E.e. > 99% (by HPLC on 0.25 m Chiracel OD column of compound 15)

$[\alpha]_D^{25}$ = +117.8 (c= 0.50, $CHCl_3$)

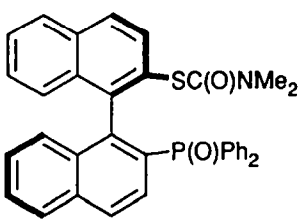
Source of chirality: (R)-(+)-2,2'-Dihydroxy-1,1'-binaphthalene

Absolute configuration: R

(R)-(+)-2-isopropylthio-2'-diphenylphosphinyl-1,1'-binaphthalene

S. Gladiali, A. Dore and D. Fabbri

Tetrahedron: Asymmetry **1994,** *5,* 1143



$C_{35}H_{28}NO_2PS$

E.e. > 99% (by HPLC on 0.25 m Chiracel OD column of compoud 14)

$[\alpha]_D^{25}$ = +5.7 (c= 0.50, $CHCl_3$)

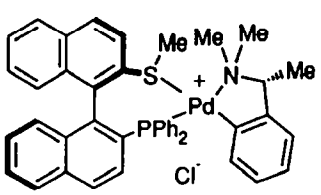
Source of chirality: (R)-(+)-2,2'-Dihydroxy-1,1'-binaphthalene

Absolute configuration: R

(R)-(+)-2'-diphenylphosphinyl-1,1'-binaphthyl-2-thiol N,N-dimethylcarbamate

S. Gladiali, A. Dore and D. Fabbri

Tetrahedron: Asymmetry **1994,** *5,* 1143



$C_{43}H_{39}ClNPPdS$

E.e.> 95% (by NMR)

$[\alpha]_D^{25}$ = +280.0 (c= 0.5, $CHCl_3$)

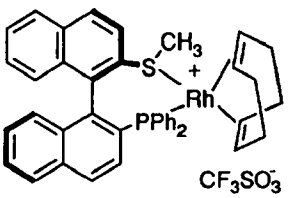
Source of chirality: Di-μ-bis[(R)-dimethyl(a-methylbenzyl)aminato-2C,N]-dipalladium(II) and (R)-(+)-2,2'-Dihydroxy-1,1'-Binaphthalene

Absolute configuration: (R),(R)

(+)-[(R)-Dimethyl(α-methylbenzyl)aminato-2-C,N]
[(R)-2-methylthio-2'-diphenylphosphino-1,1'-binaphthalene-S,P]palladium(II) chloride

S. Gladiali, A. Dore and D. Fabbri

Tetrahedron: Asymmetry **1994**, *5*, 1143



E.e. > 99% (by HPLC on 0.25 m Chiracel OD column of compound 14)

$[\alpha]_D^{25}$ = +118.9 (c= 1.0, CH_2Cl_2)

Source of chirality: (R)-(+)-2,2'-Dihydroxy-1,1'-binaphthalene

Absolute configuration: R

$C_{42}H_{37}F_3O_3PRhS_2$

(R)-(+)-[(1,2,5,6-η)-Cyclooctа-1,5-diene][2-methylthio-2'-diphenylphosphino -1,1-binaphthalene-S,P]rhodium(I) trifluoromethanesulphonate

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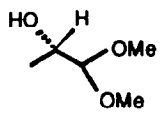
B. T. Cho and Y. S. Chun

Tetrahedron: Asymmetry **1994**, *5*, 1147



$C_5H_{12}O_3$

(S)-1,1-Dimethoxy-2-propanol

E.e. = 87 % [by capillary GC with chiraldex GTA column]

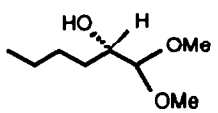
$[\alpha]_D^{25}$ = -12.15 (c 3.21, MeOH)

Source of chirality: asymmetric reduction

Absolute congiguration: S
(assigned by comparison of the sign of optical rotation)

B. T. Cho and Y. S. Chun

Tetrahedron: Asymmetry **1994**, *5*, 1147



$C_8H_{18}O_3$

(S)-1,1-Dimethoxy-2-hexanol

E.e. = 95 % [by capillary GC with chiraldex GTA column]

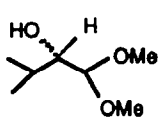
$[\alpha]_D^{25}$ = -41.41 (c 1.1, CH_2Cl_2)

Source of chirality: asymmetric reduction

Absolute congiguration: S
(assigned by comparison of the sign of optical rotation)

B. T. Cho and Y. S. Chun

Tetrahedron: Asymmetry **1994**, *5*, 1147



$C_7H_{16}O_3$

(S)-1,1-Dimethoxy-3-methyl-2-butanol

E.e. = 90 % [by capillary GC with chiraldex GTA column]

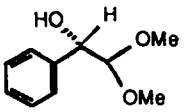
$[\alpha]_D^{25}$ = -10.24 (c 2.1, CH_2Cl_2)

Source of chirality: asymmetric reduction

Absolute congiguration: S
(assigned by comparisons of the sign of optical rotation and the order of elution in GC analysis)

B. T. Cho and Y. S. Chun

Tetrahedron: Asymmetry **1994**, *5*, 1147



$C_{10}H_{14}O_3$

(S)-1-Phenyl-2,2-dimethoxyethanol

E.e. = 92 % [by HPLC with chiralcel OD column]

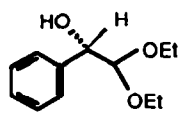
$[\alpha]_D^{25}$ = 13.57 (c 5.0, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute congiguration: S
(assigned by comparison of the sign of optical rotation)

B. T. Cho and Y. S. Chun

Tetrahedron: Asymmetry **1994**, *5*, 1147



$C_{12}H_{18}O_3$

(S)-1-Phenyl-2,2-diethoxyethanol

E.e. = 93 % [by HPLC with chiralcel OD column]

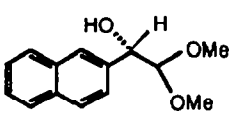
$[\alpha]_D^{25}$ = 18.57 (c 5.0, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute congiguration: S
(assigned by comparison of the sign of optical rotation and the order of elution in HPLC analysis)

B. T. Cho and Y. S. Chun

Tetrahedron: Asymmetry **1994**, *5*, 1147



$C_{14}H_{16}O_3$

(S)-1-(2-Naphthyl)-2,2-dimethoxyethanol

E.e. = 92 % [by HPLC with chiralcel OT column]

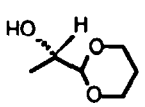
$[\alpha]_D^{25}$ = 2.36 (c 5.2, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute congiguration: S
(assigned by comparisons of the sign of optical rotation and the order of elution in HPLC analysis)

B. T. Cho and Y. S. Chun

Tetrahedron: Asymmetry **1994**, *5*, 1147



$C_6H_{12}O_3$

(S)-1-(1,3-Dioxan-2-yl)ethanol

E.e. = > 99 % [by capillary GC with chiraldex GTA column]

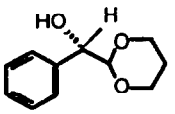
$[\alpha]_D^{25}$ = -11.40 (c 2.1, CH_2Cl_2)

Source of chirality: asymmetric reduction

Absolute congiguration: S
(assigned by comparisons of the sign of optical rotation and the order of elution in GC analysis)

B. T. Cho and Y. S. Chun

Tetrahedron: Asymmetry **1994**, *5*, 1147



$C_{11}H_{14}O_3$

(S)-1-(1,3-Dioxan-2-yl)benzylalcohol

E.e. = 96 % [by HPLC with chiralcel OD column]

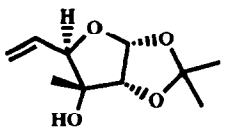
$[\alpha]_D^{25} = 3.21$ (c 5.1, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute congiguration: S
(assigned by comparisons of the sign of optical rotation and the order of elution in HPLC analysis)

Tony K. M. Shing and Ching-Hung Wong

Tetrahedron: Asymmetry **1994**, *5*, 1151



$[\alpha]_D^{24} + 47$ (*c* 0.6, $CHCl_3$)

m.p. 65—67 °C

Source of chirality: D-glucose

Absolute configuration: 1R,2R,3R,4R

$C_{10}H_{16}O_4$
5,6-Dideoxy-1,2-*O*-isopropylidene-3-*C*-methyl-α-D-*ribo*-hex-5-enofuranose

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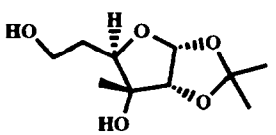
Tony K. M. Shing and Ching-Hung Wong

Tetrahedron: Asymmetry **1994**, *5*, 1151



$[\alpha]_D^{23} + 49$ (*c* 0.6, $CHCl_3$)

m.p. 83—85 °C

Source of chirality: D-glucose

Absolute configuration: 1R,2R,3R,4R

$C_{10}H_{18}O_5$
5-Deoxy-1,2-*O*-isopropylidene-3-*C*-methyl-α-D-*ribo*-hexofuranose

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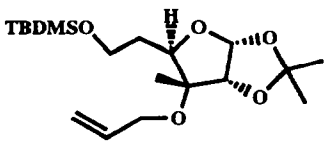
Tony K. M. Shing and Ching-Hung Wong

Tetrahedron: Asymmetry **1994**, *5*, 1151



$[\alpha]_D^{23} + 53$ (*c* 0.8, $CHCl_3$)

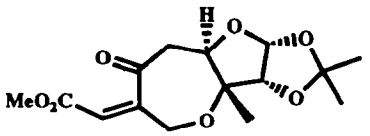
Source of chirality: D-glucose

Absolute configuration: 1R,2R,3R,4R

$C_{19}H_{36}O_5Si$
3-*O*-Allyl-5-deoxy-6-*O*-t-butyldimethylsilyl-1,2-*O*-isopropylidene-3-*C*-methyl-α-D-*ribo*-hexofuranose

Tony K. M. Shing and Ching-Hung Wong

Tetrahedron: Asymmetry **1994**, *5*, 1151



$[\alpha]_D^{23}$ + 63 (*c* 0.8, $CHCl_3$)
m.p. 109.5—111 °C
Source of chirality: D-glucose
Absolute configuration: 1R,2R,3R,4R

$C_{15}H_{20}O_7$
3,8-Anhydro-5,7-dideoxy-1,2-*O*-isopropylidene-7-(*Z*-methoxycarbonylmethylidene)-3-*C*-methyl-α-D-*ribo*-octofuranos-6-ulose

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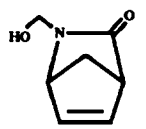
Hiroto Nakano, Yuko Okuyama, Kazuto iwasa, and Hiroshi Hongo*

Tetrahedron: Asymmetry **1994**, *5*, 1155



E.e. = >98%
$[\alpha]_D$ +344 (c=2.1, $CHCl_3$)
mp 60-62°C
Source of chirality : Lipase catalyzed transesterification
Absolute configuration : 1S,4R

$C_7H_9NO_2$
(1*S*,4*R*)-2-Hydroxymethyl-2-azabicyclo[2.2.1]-hept-5-en-3-one

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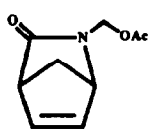
Hiroto Nakano, Yuko Okuyama, Kazuto iwasa, and Hiroshi Hongo*

Tetrahedron: Asymmetry **1994**, *5*, 1155



E.e. = 94%
$[\alpha]_D$ -155 (c=2.6, $CHCl_3$); viscus oil
Source of chirality : Lipase catalyzed transesterification
Absolute configuration : 1R,4S

$C_9H_{11}NO_3$
(1*R*,4*S*)-2-Acetoxymethyl-2-azabicyclo[2.2.1]-hept-5-en-3-one

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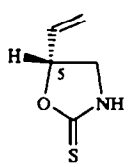
Onofrio Leoni, Christophe Marot, Patrick Rollin and Sandro Palmieri*

Tetrahedron: Asymmetry **1994**, *5*, 1157

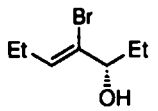


e.e. 100%
$[\alpha]^{20}_D$ +72 (c 1.0, $CHCl_3$)
Source of chirality : enzymatic hydrolysis
Absolute configuration : 5R

C_5H_7NOS
(5R)-5-vinyloxazolidine-2-thione

H. Lütjens and P. Knochel

Tetrahedron: Asymmetry **1994**, *5*, 1161



$C_7H_{13}BrO$

(3S)-trans-4-Bromohept-4-enol-3

E.e. = 94% (by ^{1}H-NMR of (S)-O-Acetylmandelic acid ester

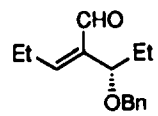
$[\alpha]_D^{25}$= -5.20 (c=1.68, benzene)

Source of chirality: asymmetric synthesis

Absolute configuration : 3S

H. Lütjens and P. Knochel

Tetrahedron: Asymmetry **1994**, *5*, 1161



$C_{15}H_{20}O_2$

Z-2-((1S)-1-Benzyloxypropyl)-pent-2-enal

E.e. = 94%

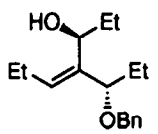
$[\alpha]_D^{25}$= -23.7 (c=4.30, benzene)

Source of chirality: chiral precursor

Absolute configuration : 1S

H. Lütjens and P. Knochel

Tetrahedron: Asymmetry **1994**, *5*, 1161



$C_{17}H_{26}O_2$

(3S)-4-((1S)-1-Benzyloxypropyl)-hept-4-enol-3

E.e. = >98% (by ^{1}H- and ^{13}C-NMR

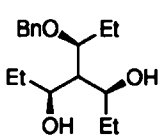
$[\alpha]_D^{25}$= -46.5 (c=1.70, benzene)

Source of chirality: asymmetric synthesis

Absolute configuration: 1S, 3S

H. Lütjens and P. Knochel

Tetrahedron: Asymmetry **1994**, *5*, 1161



$C_{17}H_{28}O_3$

(3S,5S)-4-((1S)-1-Benzyloxypropyl)-heptane-3,5-diol

E.e. = >98% (by ^{1}H- and ^{13}C-NMR)

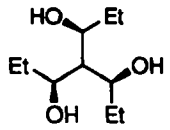
$[\alpha]_D^{25}$= +18.4 (c=1.25, benzene)

Source of chirality: separation of diastereomers

Absolute configuration : 1S, 3S, 5S

H. Lütjens and P. Knochel

Tetrahedron: Asymmetry **1994**, *5*, 1161



E.e. = >98% (by ^{1}H- and ^{13}C-NMR)
$[\alpha]_D^{25}$= -17.98 (c=0.98, benzene)

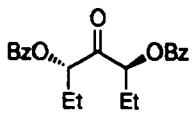
Source of chirality: chiral precursor
Absolute configuration : 1S, 3S, 5S

$C_{10}H_{22}O_3$

(3S,5S)-4-((1S)-1-Hydroxypropyl)-heptane-3,5-diol

H. Lütjens and P. Knochel

Tetrahedron: Asymmetry **1994**, *5*, 1161



E.e. = >98% (by ^{1}H- and ^{13}C-NMR)
$[\alpha]_D^{25}$= +31.8 (c=2.20, benzene)

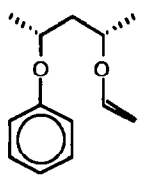
Source of chirality: asymmetric synthesis
Absolute configuration : 3S, 5S

$C_{21}H_{22}O_5$

(3S,5S)-3,5-Bisbenzoyloxyheptan-4-one

Takashi Sugimura, Norio Nishiyama, Akira Tai and Tadao Hakushi

Tetrahedron: Asymmetry **1994**, *5*, 1163



e.e. > 99.8 %

$[\alpha]_D^{20}$ = -35.9 (c 0.9, methanol)

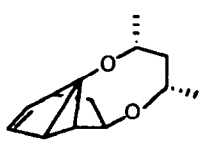
Source of chirality: (2*R*,4*R*)-2,4-pentanediol

Absolute configuration: 2R,4S
(Assigned by chemical correlation)

$C_{13}H_{18}O_2$
2-Phenoxy-4-vinyloxypentane

Takashi Sugimura, Norio Nishiyama, Akira Tai and Tadao Hakushi

Tetrahedron: Asymmetry **1994**, *5*, 1163



e.e. > 99.8 %, d.e. > 99 %

$[\alpha]_D^{20}$ = 21.3 (c 0.2, methanol)

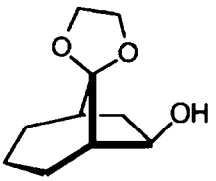
Source of chirality: (2*R*,4*R*)-2,4-pentanediol

Absolute configuration: 1S,4S,6R,8R,9S,12S
(Assigned by chemical correlation)

$C_{13}H_{18}O_2$
4,6-Dimethyl-3,7-dioxatetracyclo[6.4.0.$1^{2,9}$.$0^{8,12}$]
trideca-10-ene

Takashi Sugimura, Norio Nishiyama, Akira Tai and Tadao Hakushi

Tetrahedron: Asymmetry **1994**, *5*, 1163



$C_{10}H_{16}O_3$
6-Hydroxy-8-bicyclo[3.2.1]octaone ethylene acetal

e.e. > 95 %

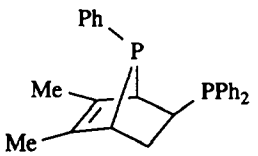
$[\alpha]_D^{24}$ = -13 (c 0.3, methanol)

Source of chirality: (2R,4R)-2,4-pentanediol and diastereoface differentiating reaction

Absolute configuration: 1R ,5S, 6R
(Assigned by optical rotation)

B. H. Aw, P.H. Leung

Tetrahedron: Asymmetry **1994**, *5*, 1167



$C_{26}H_{26}P_2$

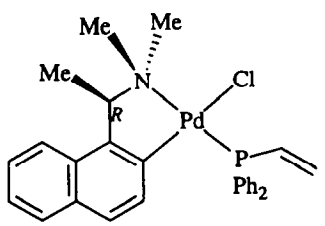
E.e. = > 99% (by nmr)

$[\alpha]_D^{22}$ = +62.5 (c 0.6, CH_2Cl_2)

Source of chirality: asymm. Diels-Alder reaction

B. H. Aw, P.H. Leung

Tetrahedron: Asymmetry **1994**, *5*, 1167



$C_{28}H_{29}ClNPPd$

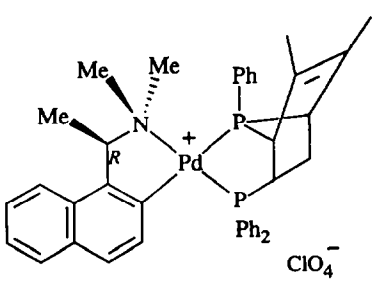
E.e. = > 99% (by nmr)

$[\alpha]_D^{22}$ = -70.3 (c 1.0, $CHCl_3$)

Source of chirality: asymm. synth.

B. H. Aw, P.H. Leung

Tetrahedron: Asymmetry **1994**, *5*, 1167



$C_{40}H_{42}ClNO_4P_2Pd$

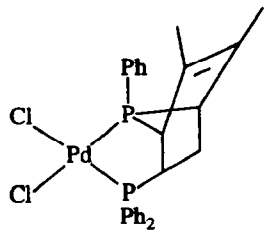
E.e. = > 99% (by nmr)

$[\alpha]_D^{22}$ = -56.3 (c 1.0, $CHCl_3$)

Source of chirality: asymm. Diels-Alder reaction

B. H. Aw, P.H. Leung

Tetrahedron: Asymmetry **1994**, *5*, 1167



E.e. = > 99% (by nmr)

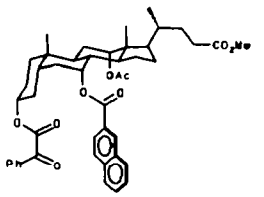
$[\alpha]_D^{22}$ = +10.9 (c 1.0, CH_2Cl_2)

Source of chirality: asymm. Diels-Alder reaction

$C_{26}H_{26}Cl_2P_2Pd$

Uday Maitra and Packiarajan Mathivanan

Tetrahedron: Asymmetry **1994**, *5*, 1171



$[\alpha]_D^{22}$ = +53.6 (*c* 4.31, $CHCl_3$)

mp: 124°C

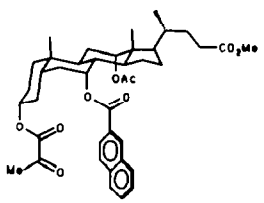
Source of chirality: Cholic acid

$C_{46}H_{54}O_9$

Methyl 3α-[benzoylcarbonyloxy]-7α-[2-naphthoyloxy]-12α-acetyloxy-5β-cholanate

Uday Maitra and Packiarajan Mathivanan

Tetrahedron: Asymmetry **1994**, *5*, 1171



$[\alpha]_D^{23}$ = +64.9 (*c* 1.57, $CHCl_3$)

mp: 107°C

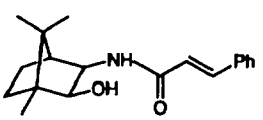
Source of chirality: Cholic acid

$C_{41}H_{52}O_9$

Methyl 3α-[acetylcarbonyloxy]-7α-[2-naphthoyloxy]-12α-acetyloxy-5β-cholanate

K. Tanaka, H. Uno, H. Osuga, H. Suzuki

Tetrahedron: Asymmetry **1994**, *5*, 1175



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

$[\alpha]_D^{23}$ +78.8 (c 0.88, $CHCl_3$)

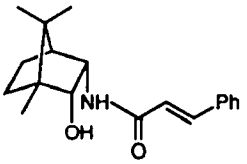
Prepared from (1*R*, 2*S*, 3*R*, 4*S*)-3-amino-1,7,7-trimethylbicyclo[2.2.1]heptan-2-ol and cinnamoyl chloride

$C_{19}H_{25}NO_2$

N-[2-Hydroxy-1,7,7-trimethylbicyclo[2.2.1]hept-3-yl]-3-phenyl-2-propenamide

K. Tanaka, H. Uno, H. Osuga, H. Suzuki

Tetrahedron: Asymmetry **1994,** *5,* 1175

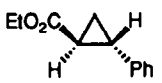


Absolute configuration; 1*R*, 2*R*, 3*S*, 4*S*
$[\alpha]_D^{23}$ +39.9 (c 0.88, $CHCl_3$)
Prepared from (1*R*, 2*R*, 3*S*, 4*S*)-3-amino-1,7,7-trimethylbicyclo[2.2.1]heptan-2-ol and cinnamoyl chloride

$C_{19}H_{25}NO_2$
N-[2-Hydroxy-1,7,7-trimethylbicyclo[2.2.1]hept-3-yl]-3-phenyl-2-propenamide

K. Tanaka, H. Uno, H. Osuga, H. Suzuki

Tetrahedron: Asymmetry **1994,** *5,* 1175

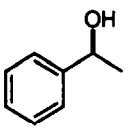


Absolute configuration; 1*S*, 2*S*
$[\alpha]_D$ +296 (c 0.90, $CHCl_3$)
Prepared from (1*S*, 2*S*)-*N*-[(1*R*, 2*R*, 3*S*, 4*S*)-2-hydroxy-1,7,7-trimethylbicyclo[2.2.1]hept-3-yl]-2-phenylcyclopropanecarboxamide

$C_{12}H_{14}O_2$
Ethyl 2-phenylcyclopropanecarboxylate

Xiaoyong Zhang, Hidenori Kumobayashi, and Hidemasa Takaya

Tetrahedron: Asymmetry **1994,** *5,* 1179

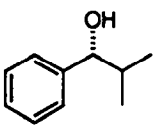


$C_8H_{10}O$
(*S*)-1-Phenylethanol

E.e. = 54% (by HPLC with CHIRALCEL OD)
$[\alpha]^{26}_D$ = -24.5 (*c* 3.34, MeOH)
Source of chirality: asymmetric hydrogenation
Absolute configuration: *S*

Xiaoyong Zhang, Hidenori Kumobayashi, and Hidemasa Takaya

Tetrahedron: Asymmetry **1994,** *5,* 1179

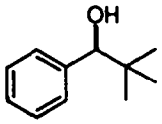


$C_{10}H_{14}O$
(*R*)-2-Methyl-1-phenyl-1-propanol

E.e. = 84% [by ^{19}F NMR of the (*R*)-MTPA ester]
$[\alpha]^{27}_D$ = +39.0 (*c* 6.89, Et_2O)
Source of chirality: asymmetric hydrogenation
Absolute configuration: *R*

Xiaoyong Zhang, Hidenori Kumobayashi, and Hidemasa Takaya

Tetrahedron: Asymmetry **1994,** *5,* 1179



$C_{11}H_{16}O$

(*S*)-2,2-Dimethyl-1-phenyl-1-propanol

E.e. = 19% (by HPLC with CHIRALCEL OD)

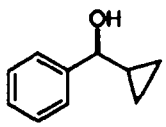
$[\alpha]^{22}_D$ = -3.6 (*c* 2.15, C_6H_6)

Source of chirality: asymmetric hydrogenation

Absolute configuration: *S*

Xiaoyong Zhang, Hidenori Kumobayashi, and Hidemasa Takaya

Tetrahedron: Asymmetry **1994,** *5,* 1179



$C_{10}H_{12}O$

(*S*)-Cyclopropylphenylmethanol

E.e. = 33% (by HPLC with CHIRALCEL OD)

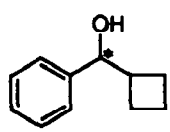
$[\alpha]^{22}_D$ = -9.9 (*c* 1.01, $CHCl_3$); $[\alpha]^{24}_D$ = -5.2 (*c* 1.79, C_6H_6)

Source of chirality: asymmetric hydrogenation

Absolute configuration: *S*

Xiaoyong Zhang, Hidenori Kumobayashi, and Hidemasa Takaya

Tetrahedron: Asymmetry **1994,** *5,* 1179



$C_{11}H_{14}O$

(+)-Cyclobutylphenylmethanol

E.e. = 39% (by HPLC with CHIRALCEL OD)

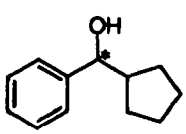
$[\alpha]^{22}_D$ = +17.0 (*c* 3.02, C_6H_6)

Source of chirality: asymmetric hydrogenation

Absolute configuration: undetermined

Xiaoyong Zhang, Hidenori Kumobayashi, and Hidemasa Takaya

Tetrahedron: Asymmetry **1994,** *5,* 1179



$C_{12}H_{16}O$

(+)-Cyclopentylphenylmethanol

E.e. = 73% (by HPLC with CHIRALCEL OJ)

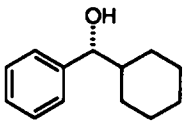
$[\alpha]^{26}_D$ = +34.8 (*c* 3.08, C_6H_6)

Source of chirality: asymmetric hydrogenation

Absolute configuration: undetermined

Xiaoyong Zhang, Hidenori Kumobayashi, and Hidemasa Takaya

Tetrahedron: Asymmetry **1994,** *5,* 1179



$C_{13}H_{18}O$

(*R*)-Cyclohexylphenylmethanol

E.e. = 79% [by ^{19}F NMR of the (*R*)-MTPA ester]

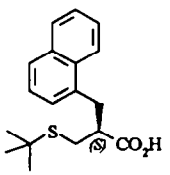
$[\alpha]^{22}_D$ = +21.8 (*c* 3.47, C_6H_6)

Source of chirality: asymmetric hydrogenation

Absolute configuration: *R*

H. Jendralla

Tetrahedron: Asymmetry **1994,** *5,* 1183



$C_{18}H_{22}SO_2$

[3-*tert*-Butylthio-2*(S)*-(1-naphthyl)methyl] propionic acid

E.e. : up to 84% [by chiral phase HPLC of corresponding *(R)*-1-phenylethylamide]

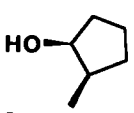
$[\alpha]_D^{25}$ -32.9 (c 1.06, CH_3OH) [calculated by extrapolation of the measured optical rotation to 100% ee].

Source of chirality : asymmetric hydrogenation of corresponding olefinic precursor.

Absolute configuraton : *S*
(assigned by comparison of the corresponding sulfone with an authentic reference compound)

A. R. Reinhold and R. L. Rosati

Tetrahedron: Asymmetry **1994,** *5,* 1187



$C_6H_{12}O$

cis 2-methylcyclopentanol

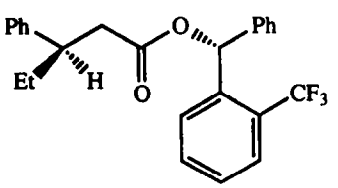
E.e. = 92% (determined by NMR)
[α]D = +24.4 (c0.05, CH_2Cl_2)

Source of chirality: LIPASE P-30

Absolute configuration 1*S*,2*R*
(assigned by X-ray)

E. Brown, C.Chevalier, F. Huet, A. Lézé, C. Le Grumelec and J. Touet

Tetrahedron: Asymmetry **1994,** *5,* 1191

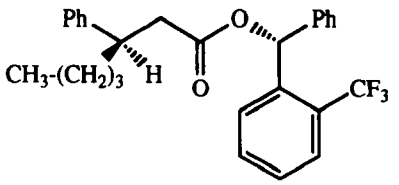


$C_{25}H_{23}O_2F_3$

(R,R)-(+)-2-(Trifluoromethyl)benzhydryl 3-phenylpentanoate

$[\alpha]_D$ +9.5 (c 2, EtOH)
de : 87.5% (^{19}F NMR)
Chiral source :
(R)-(-)-2-Aminobutan-1-ol
Absolute configuration : (R,R)

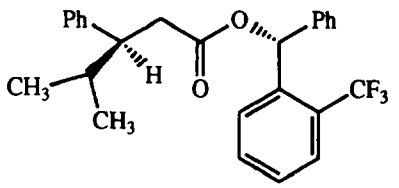
E. Brown, C.Chevalier, F. Huet, A. Lézé, C. Le Grumelec and J. Touet | *Tetrahedron: Asymmetry* **1994,** *5,* 1191



$[\alpha]_D$ +12.2 (c 2, EtOH)
de : 89.6% (^{19}F NMR)
Chiral source :
(R)-(-)-2-Aminobutan-1-ol
Absolute configuration : (R,R)

$C_{27}H_{27}O_2F_3$
(R,R)-(+)-2-(Trifluoromethyl)benzhydryl 3-phenylheptanoate

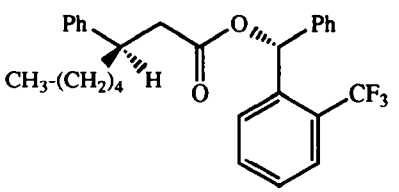
E. Brown, C.Chevalier, F. Huet, A. Lézé, C. Le Grumelec and J. Touet | *Tetrahedron: Asymmetry* **1994,** *5,* 1191



$[\alpha]_D$ +6.4 (c 2.3, EtOH)
de : 72.5% (^{19}F NMR)
Chiral source :
(R)-(-)-2-Aminobutan-1-ol
Absolute configuration : (R,R)

$C_{26}H_{25}O_2F_3$
(R,R)-(+)-2-(Trifluoromethyl)benzhydryl 4-methyl-3-phenylpentanoate

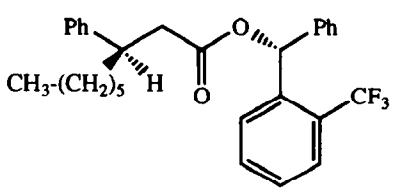
E. Brown, C.Chevalier, F. Huet, A. Lézé, C. Le Grumelec and J. Touet | *Tetrahedron: Asymmetry* **1994,** *5,* 1191



$[\alpha]_D$ +12 (c 2, EtOH)
de : 88% (^{19}F NMR)
Chiral source :
(R)-(-)-2-Aminobutan-1-ol
Absolute configuration : (R,R)

$C_{28}H_{29}O_2F_3$
(R,R)-(+)-2-(Trifluoromethyl)benzhydryl 3-phenyloctanoate

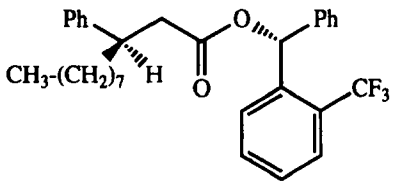
E. Brown, C.Chevalier, F. Huet, A. Lézé, C. Le Grumelec and J. Touet | *Tetrahedron: Asymmetry* **1994,** *5,* 1191



$[\alpha]_D$ +15.7 (c 0.7, EtOH)
de : 89% (^{19}F NMR)
Chiral source :
(R)-(-)-2-Aminobutan-1-ol
Absolute configuration : (R,R)

$C_{29}H_{31}O_2F_3$
(R,R)-(+)-2-(Trifluoromethyl)benzhydryl 3-phenylnonanoate

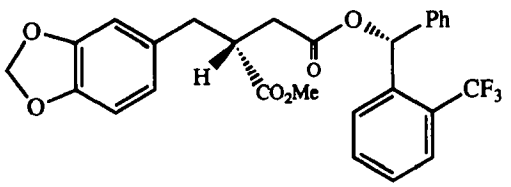
E. Brown, C.Chevalier, F. Huet, A. Lézé, C. Le Grumelec and J. Touet | *Tetrahedron: Asymmetry* **1994**, *5*, 1191



$[\alpha]_D$ +10.7 (c 2.1, EtOH)
de : 88.4% (^{19}F NMR)
Chiral source :
(R)-(-)-2-Aminobutan-1-ol
Absolute configuration : (R,R)

$C_{31}H_{35}O_2F_3$
(R,R)-(+)-2-(Trifluoromethyl)benzhydryl 3-phenylundecanoate

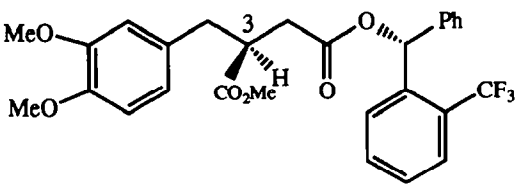
E. Brown, C.Chevalier, F. Huet, A. Lézé, C. Le Grumelec and J. Touet | *Tetrahedron: Asymmetry* **1994**, *5*, 1191



$[\alpha]_D$ +9.4 (c 2.7, EtOH)
de : >98% (^{19}F NMR)
Chiral source :
(R)-(-)-2-Aminobutan-1-ol
Absolute configuration : (R,R)

$C_{27}H_{23}O_6F_3$
(+)-2-(Trifluoromethyl)benzhydryl 3-methoxycarbonyl-4-(R,R)-(3,4-methylenedioxyphenyl) butyrate

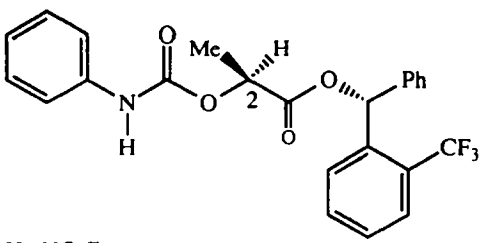
E. Brown, C.Chevalier, F. Huet, A. Lézé, C. Le Grumelec and J. Touet | *Tetrahedron: Asymmetry* **1994**, *5*, 1191



$[\alpha]_D$ -14.1 (c 1.5, EtOH)
de = 90.2% (^{19}F NMR)
Chiral source :
(R)-(-)-2-Aminobutan-1-ol
Absolute configuration : (3S,R)

$C_{28}H_{27}O_6F_3$
(-)-2-(Trifluoromethyl)benzhydryl 3-methoxycarbonyl-4-(3,4-dimethoxyphenyl) butyrate

E. Brown, C.Chevalier, F. Huet, A. Lézé, C. Le Grumelec and J. Touet | *Tetrahedron: Asymmetry* **1994**, *5*, 1191

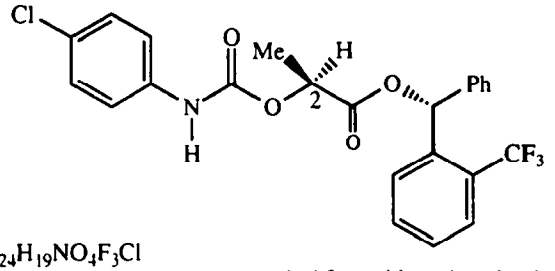


$[\alpha]_D$ -13.1 (c 1.3, EtOH)
de >98% (^{19}F NMR)
Chiral source :
(R)-(-)-2-Aminobutan-1-ol and
(S)-lactic acid
Absolute configuration : (2S,R)

$C_{24}H_{20}NO_4F_3$
(-)-2-(Trifluoromethyl)benzhydryl 2-(phenylaminocarbonyloxy) propionate

E. Brown, C.Chevalier, F. Huet, A. Lézé, C. Le Grumelec and J. Touet

Tetrahedron: Asymmetry **1994**, *5*, 1191

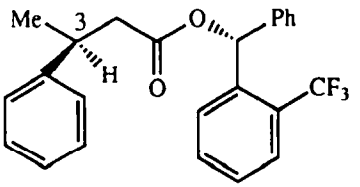


$C_{24}H_{19}NO_4F_3Cl$
(-)-2-(Trifluoromethyl)benzhydryl 2-(p-chlorophenylamino-carbonyloxy) propionate

$[\alpha]_D$ -32.3 (c 1.75, EtOH)
m.p. 125°C
de = 91.6% (^{19}F NMR)
Chiral source :
(R)-(-)-2-Aminobutan-1-ol and
(S)-lactic acid
Absolute configuration : (2S,R)

E. Brown, C.Chevalier, F. Huet, A. Lézé, C. Le Grumelec and J. Touet

Tetrahedron: Asymmetry **1994**, *5*, 1191

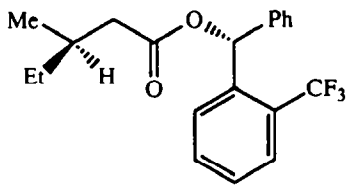


$C_{24}H_{21}O_2F_3$
(+)-2-(Trifluoromethyl)benzhydryl 3-phenylbutanoate

$[\alpha]_D$ +34.1 (c 1.1, EtOH)
de : 90.8% (^{19}F NMR)
Chiral source :
(R)-(-)-2-Aminobutan-1-ol
Absolute configuration : (3S,R)

E. Brown, C.Chevalier, F. Huet, A. Lézé, C. Le Grumelec and J. Touet

Tetrahedron: Asymmetry **1994**, *5*, 1191

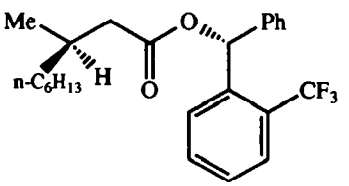


$C_{20}H_{21}O_2F_3$
(R,R)-(+)-2-(Trifluoromethyl)benzhydryl 3-methylpentanoate

$[\alpha]_D$ +16.3 (c 1.2, EtOH)
de = 87.8% (^{19}F NMR)
Chiral source :
(R)-(-)-2-Aminobutan-1-ol
Absolute configuration : (R,R)

E. Brown, C.Chevalier, F. Huet, A. Lézé, C. Le Grumelec and J. Touet

Tetrahedron: Asymmetry **1994**, *5*, 1191

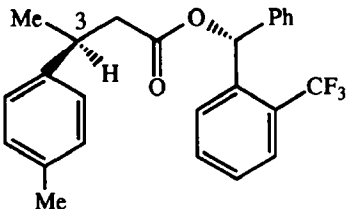


$C_{24}H_{29}O_2F_3$
(R,R)-(+)-2-(Trifluoromethyl)benzhydryl 3-methylnonanoate

$[\alpha]_D$ +18.5 (c 1.1, EtOH)
de = 91.8% (^{19}F NMR)
Chiral source :
(R)-(-)-2-Aminobutan-1-ol
Absolute configuration : (R,R)

E. Brown, C.Chevalier, F. Huet, A. Lézé, C. Le Grumelec and J. Touet

Tetrahedron: Asymmetry **1994,** *5,* 1191

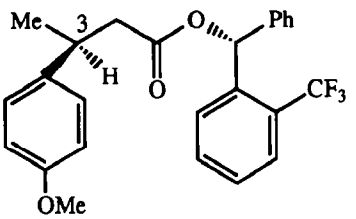


$[\alpha]_D$ +35.4 (c 0.7, EtOH)
de = 93.5% (^{19}F NMR)
Chiral source :
(R)-(-)-2-Aminobutan-1-ol
Absolute configuration : (3S,R)

$C_{25}H_{23}O_2F_3$
(+)-2-(Trifluoromethyl)benzhydryl 3-(p-methylphenyl)butanoate

E. Brown, C.Chevalier, F. Huet, A. Lézé, C. Le Grumelec and J. Touet

Tetrahedron: Asymmetry **1994,** *5,* 1191

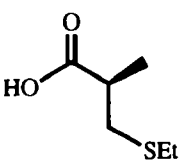


$[\alpha]_D$ +33.3 (c 1.1, EtOH)
de = 91.2% (^{19}F NMR)
Chiral source :
(R)-(-)-2-Aminobutan-1-ol
Absolute configuration : (3S,R)

$C_{25}H_{23}O_3F_3$
(+)-2-(Trifluoromethyl)benzhydryl 3-(p-methoxyphenyl)butanoate

W. J. Tsai, Y. T. Lin and B. J. Uang*

Tetrahedron: Asymmetry **1994,** *5,* 1195



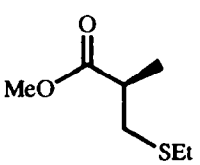
$[\alpha]_D^{25}$ +27.0 (*c* 2, $CHCl_3$)
Source of chirality: D-2,10-camphorsultam
Absolute configuration: *R*

$C_6H_{12}O_2S$

3-ethylthio-2-(*R*)-methylpropanoic acid

W. J. Tsai, Y. T. Lin and B. J. Uang*

Tetrahedron: Asymmetry **1994,** *5,* 1195



$[\alpha]_D^{25}$ +37.5 (*c* 2, $CHCl_3$)
Source of chirality: D-2,10-camphorsultam
Absolute configuration: *R*

$C_7H_{14}O_2S$

methyl 3-ethylthio-2-(*R*)-methylpropanoate

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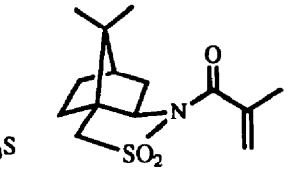
Tetrahedron: Asymmetry **1994**, *5*, 1195



$C_{14}H_{21}NO_3S$

$[\alpha]_D^{25}$ -94.1 (*c* 1, $CHCl_3$)

Source of chirality: D-2,10-camphorsultam

N-methacryloyl-[3a*S*-(3aα, 6α, 7aβ)]-hexahydro-8,8-dimethyl-3*H*-3a,6-methano-2,1-benzisothiazole-2,2-dioxide

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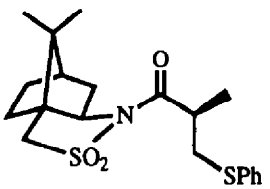
Tetrahedron: Asymmetry **1994**, *5*, 1195



$C_{20}H_{27}NO_3S_2$

$[\alpha]_D^{25}$ +15.3 (*c* 2, $CHCl_3$)

Source of chirality: D-2,10-camphorsultam

Absolute configuration: *R*

N-[3-phenylthio-2-(*R*)-methylpropanoyl]-[3a*S*-(3aα, 6α, 7aβ)]-hexahydro-8,8-dimethyl-3*H*-3a,6-methano-2,1-benzisothiazole-2,2-dioxide

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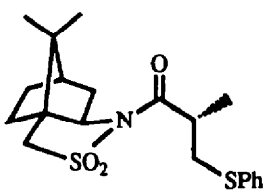
W. J. Tsai, Y. T. Lin and B. J. Uang*

Tetrahedron: Asymmetry **1994**, *5*, 1195



$C_{20}H_{27}NO_3S_2$

$[\alpha]_D^{25}$ -99.4 (*c* 2, $CHCl_3$)

Source of chirality: D-2,10-camphorsultam

Absolute configuration: *S*

N-[3-phenylthio-2-(*S*)-methylpropanoyl]-[3a*S*-(3aα, 6α, 7aβ)]-hexahydro-8,8-dimethyl-3*H*-3a,6-methano-2,1-benzisothiazole-2,2-dioxide

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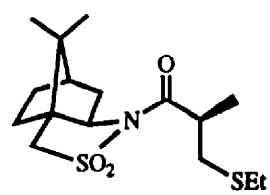
W. J. Tsai, Y. T. Lin and B. J. Uang*

Tetrahedron: Asymmetry **1994**, *5*, 1195



$C_{16}H_{27}NO_3S_2$

$[\alpha]_D^{25}$ +10.0 (*c* 2, $CHCl_3$)

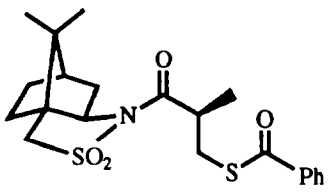
Source of chirality: D-2,10-camphorsultam

Absolute configuration: *R*

N-[3-ethylthio-2-(*R*)-methylpropanoyl]-[3a*S*-(3aα, 6α, 7aβ)]-hexahydro-8,8-dimethyl-3*H*-3a,6-methano-2,1-benzisothiazole-2,2-dioxide

W. J. Tsai, Y. T. Lin and B. J. Uang*

Tetrahedron: Asymmetry **1994**, *5*, 1195



$C_{21}H_{27}NO_4S_2$

$[\alpha]_D^{25}$ +19.9 (*c* 2, $CHCl_3$)

Source of chirality: D-2,10-camphorsultam

Absolute configuration: *R*

N-[3-thiobenzoyl-2-(*R*)-methylpropanoyl]-[3a*S*-(3aα, 6α, 7aβ)]-hexahydro-8,8-dimethyl-3*H*-3a,6-methano-2,1-benzisothiazole-2,2-dioxide

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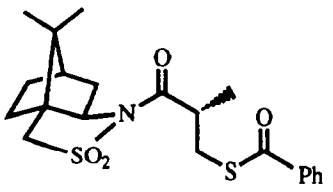
W. J. Tsai, Y. T. Lin and B. J. Uang*

Tetrahedron: Asymmetry **1994**, *5*, 1195



$C_{21}H_{27}NO_4S_2$

$[\alpha]_D^{25}$ -121.8 (*c* 2, $CHCl_3$)

Source of chirality: D-2,10-camphorsultam

Absolute configuration: *S*

N-[3-thiobenzoyl-2-(*S*)-methylpropanoyl]-[3a*S*-(3aα, 6α, 7aβ)]-hexahydro-8,8-dimethyl-3*H*-3a,6-methano-2,1-benzisothiazole-2,2-dioxide

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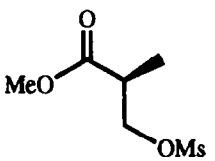
W. J. Tsai, Y. T. Lin and B. J. Uang*

Tetrahedron: Asymmetry **1994**, *5*, 1195



$C_6H_{12}O_5S$

$[\alpha]_D^{25}$ +10.4 (*c* 2, $CHCl_3$)

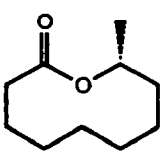
Source of chirality: D-2,10-camphorsultam

Absolute configuration: *S*

methyl 3-methanesulfonyl-2-(*S*)-methylpropanoate

G. B. Jones, B. J. Chapman, R. S. Huber and R. Beaty

Tetrahedron: Asymmetry **1994**, *5*, 1199



R-(-) phorcantholide $C_{10}H_{16}O_2$

E.e. 88%

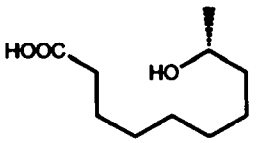
$[a]_D^{25}$ = -31.0 (c 0.1, $CHCl_3$)

Absolute configuration: R

Source of chirality: enantioselective catalyst

G. B. Jones, B. J. Chapman, R. S. Huber and R. Beaty

Tetrahedron: Asymmetry **1994**, *5*, 1199



R-(-) 9 hydroxydecanoic acid $C_{10}H_{20}O_3$

E.e. 88%

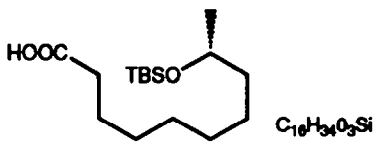
$[a]_D^{25}$ = -7.0 (c 0.1, $CHCl_3$)

Absolute configuration: R

Source of chirality: enantioselective catalyst

G. B. Jones, B. J. Chapman, R. S. Huber and R. Beaty

Tetrahedron: Asymmetry **1994**, *5*, 1199



$C_{16}H_{34}O_3Si$

R-(+) 9 tertbutyldimethylsilyloxy decanoic acid

E.e. 88%

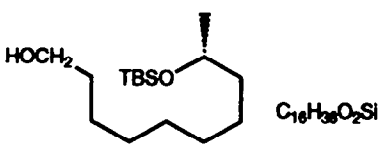
$[a]_D^{25}$ = +74.5 (c 0.05, $CHCl_3$)

Absolute configuration: R

Source of chirality: enantioselective catalyst

G. B. Jones, B. J. Chapman, R. S. Huber and R. Beaty

Tetrahedron: Asymmetry **1994**, *5*, 1199



$C_{16}H_{36}O_2Si$

R-(+) 9 tertbutyldimethylsilyloxy decan-1-ol

E.e. 88%

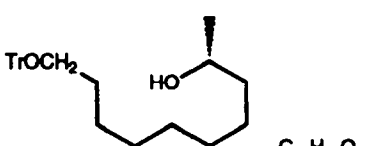
$[a]_D^{25}$ = +1.26 (c 0.5, $CHCl_3$)

Absolute configuration: R

Source of chirality: enantioselective catalyst

G. B. Jones, B. J. Chapman, R. S. Huber and R. Beaty

Tetrahedron: Asymmetry **1994**, *5*, 1199



$C_{29}H_{36}O_2$

R-(+) 1-triphenylmethoxy-9-decanol

E.e. 88%

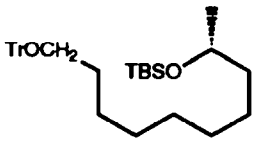
$[a]_D^{25}$ = +19.0 (c 0.5, $CHCl_3$)

Absolute configuration: R

Source of chirality: enantioselective catalyst

G. B. Jones, B. J. Chapman, R. S. Huber and R. Beaty

Tetrahedron: Asymmetry **1994**, *5*, 1199



$C_{35}H_{50}O_2Si$

R-(+) 1-triphenylmethoxy-9-tertbutyl dimethylsilyloxydecane

E.e. 88%

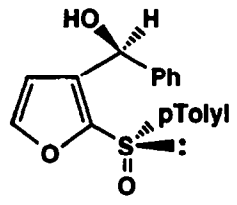
$[a]_D^{25}$ = +18.9 (c 0.5, $CHCl_3$)

Absolute configuration: R

Source of chirality: enantioselective catalyst

Laurent D. Girodier and Francis P. Rouessac

Tetrahedron: Asymmetry **1994**, *5*, 1203



$C_{18}H_{16}O_3S$

3-α-phenyl-2-(p-tolylsulfinyl)-furanmethanol

E.e.=100%[by 400Mhz ^1H NMR with $Eu(hfc)_3$]

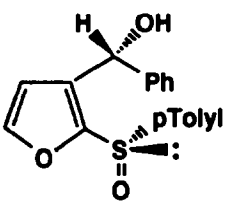
$[\alpha]_D^{24}$= -114(c=0.9,acetone)

Source of chirality : from (-)-(S)-menthyl-p-tolylsulfinate

Absolute configuration : $SS_{(s)}$
(assigned by X-ray analysis)

Laurent D. Girodier and Francis P. Rouessac

Tetrahedron: Asymmetry **1994**, *5*, 1203



$C_{18}H_{16}O_3S$

3-α-phenyl-2-(p-tolylsulfinyl)-furanmethanol

E.e.=100%[by 400Mhz ^1H NMR with $Eu(hfc)_3$]

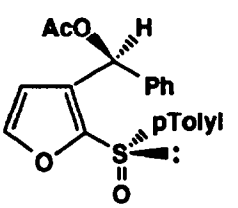
$[\alpha]_D^{24}$= -43(c=1.1,acetone)

Source of chirality : from (-)-(S)-menthyl-p-tolylsulfinate

Absolute configuration : $RS_{(s)}$

Laurent D. Girodier and Francis P. Rouessac

Tetrahedron: Asymmetry **1994**, *5*, 1203



$C_{20}H_{18}O_4S$

3-α-phenyl-2-(p-tolylsulfinyl)-furanmethanol-acetate

E.e.=100%[by 400Mhz ^1H NMR with $Eu(hfc)_3$]

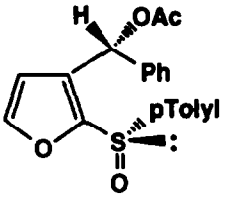
$[\alpha]_D^{24}$= -74(c= 1.6,acetone)

Source of chirality : from (-)-(S)-menthyl-p-tolylsulfinate

Absolute configuration :$SS_{(s)}$
(assigned by X-ray of synthetic intermediate)

Laurent D. Girodier and Francis P. Rouessac

Tetrahedron: Asymmetry **1994**, *5*, 1203



$C_{20}H_{18}O_4S$

E.e.=100%[by 400Mhz ^1H NMR with $Eu(hfc)_3$]

$[\alpha]_D^{24}$= -54(c=1.4,acetone)

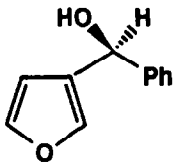
Source of chirality : from (-)-(S)-menthyl-p-tolylsulfinate

Absolute configuration :$RS_{(s)}$

3-α-phenyl-2-(p-tolylsulfinyl)-furanmethanol-acetate

Laurent D. Girodier and Francis P. Rouessac

Tetrahedron: Asymmetry **1994**, *5*, 1203



$C_{11}H_{10}O_2$

E.e.=100%[by 400Mhz ^1H NMR with $Eu(hfc)_3$]

$[\alpha]_D^{24}$=+10.7(c=3.0,acetone)

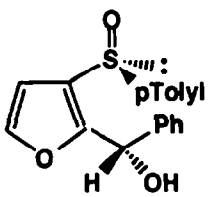
Source of chirality : from (-)-(S)-menthyl-p-tolylsulfinate

Absolute configuration : S
(assigned by X-ray of synthetic intermediate)

3-α-phenyl-furanmethanol

Laurent D. Girodier and Francis P. Rouessac

Tetrahedron: Asymmetry **1994**, *5*, 1203



$C_{18}H_{16}O_3S$

E.e.=100%[by 400Mhz ^1H NMR with $Eu(hfc)_3$]

$[\alpha]_D^{24}$=-127(c=0.5,acetone)

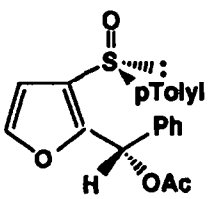
Source of chirality : from (-)-(S)-menthyl-p-tolylsulfinate

Absolute configuration : $SS_{(s)}$
(Assigned by conversion to (S)-2-α-phenyl-Furylmethanol of know configuration)

2-α-phenyl-3-(p-tolylsulfinyl)-furanmethanol

Laurent D. Girodier and Francis P. Rouessac

Tetrahedron: Asymmetry **1994**, *5*, 1203



$C_{20}H_{18}O_4S$

E.e.=100%[by 400Mhz ^1H NMR with $Eu(hfc)_3$]

$[\alpha]_D^{24}$=-120(c=1.2,acetone)

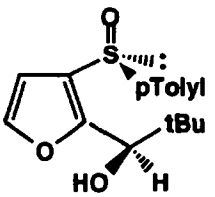
Source of chirality : from (-)-(S)-menthyl-p-tolylsulfinate

Absolute configuration : $SS_{(s)}$

2-α-phenyl-3-(p-tolylsulfinyl)-furanmethanol-acetate

Laurent D. Girodier and Francis P. Rouessac

Tetrahedron: Asymmetry **1994**, *5*, 1203



$C_{16}H_{20}O_3S$

E.e.=100%[by 400Mhz ^1H NMR with $Eu(hfc)_3$]

$[\alpha]_D^{24}$=-133(c=0.8,acetone)

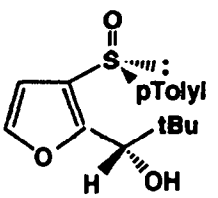
Source of chirality : from (-)-(S)-menthyl-p-tolylsulfinate

Absolute configuration : $RS_{(S)}$

2-α-t-butyl-3-(p-tolylsulfinyl)-furanmethanol

Laurent D. Girodier and Francis P. Rouessac

Tetrahedron: Asymmetry **1994**, *5*, 1203



$C_{16}H_{20}O_3S$

E.e.=100%[by 400Mhz ^1H NMR with $Eu(hfc)_3$]

$[\alpha]_D^{24}$=-98(c=0.8,acetone)

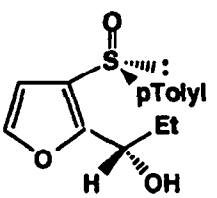
Source of chirality : from (-)-(S)-menthyl-p-tolylsulfinate

Absolute configuration :$SS_{(S)}$

2-α-t-butyl-3-(p-tolylsulfinyl)-furanmethanol

Laurent D. Girodier and Francis P. Rouessac

Tetrahedron: Asymmetry **1994**, *5*, 1203



$C_{14}H_{16}O_3S$

E.e.=100%[by 400Mhz ^1H NMR with $Eu(hfc)_3$]

$[\alpha]_D^{24}$=-116(c=1.6,acetone)

Source of chirality : from (-)-(S)-menthyl-p-tolylsulfinate

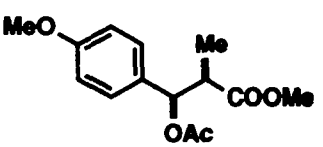
Absolute configuration :$SS_{(S)}$

(assigned by conversion to (S)-2-α-ethyl-Furylmethanol of know configuration)

2-α-ethyl-3-(p-tolylsulfinyl)-furanmethanol

H. Akita, Cheng Yu Chen, S. Nagumo

Tetrahedron: Asymmetry **1994**, *5*, 1207



$C_{14}H_{18}O_5$

Methyl (2R,3R)-3-acethoxy-2-(*p*-methoxyphenyl)-2-methyl-propanoate

E.e. = >99% (by 400MHz NMR)

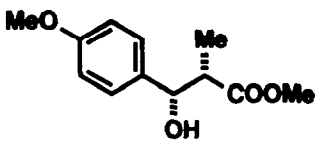
$[\alpha]_D^{23}$ +47.3 (c=4.6, $CHCl_3$)

source of chirality: lipase catalysed resolution

Absolute configuration 2R,3R

H. Akita, Cheng Yu Chen, S. Nagumo

Tetrahedron: Asymmetry **1994**, *5*, 1207



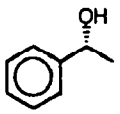
$C_{12}H_{16}O_4$

Methyl (2S,3S)-3-hydroxy-2-(*p*-methoxyphenyl)-2-methyl-propanoate

E.e. = 94% (by 400MHz NMR)
$[\alpha]_D^{23}$ -16.4 (c=4.7, $CHCl_3$)
source of chirality: lipase catalysed resolution
Absolute configuration 2S,3S

Jiang,Y.Z.;Qin,Y.;Mi,A.Q.;and Huang,Z.T.

Tetrahedron: Asymmetry **1994**, *5*, 1211

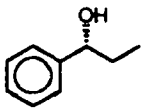


$C_8H_{10}O$
R(+)-1-Phenylethanol

E.e.>99% [by optical rotation]
$[a]_D^{20}$=+52.5(c 3.60,CH_2Cl_2)
Source of chirality: asymm. reduction

Jiang,Y.Z.;Qin,Y.;Mi,A.Q.;and Huang,Z.T.

Tetrahedron: Asymmetry **1994**, *5*, 1211

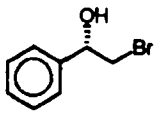


$C_9H_{12}O$
R(+)-1-Phenylpropanol

E.e.=79.3% [by optical rotation]
$[a]_D^{20}$=+36.0(c 4.26,$CHCl_3$)
Source of chirality: asymm. reduction

Jiang,Y.Z.;Qin,Y.;Mi,A.Q.;and Huang,Z.T.

Tetrahedron: Asymmetry **1994**, *5*, 1211

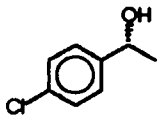


C_8H_9BrO
S(+)-2-Bromo-1-phenylethanol

E.e.>96% [by optical rotation]
$[a]_D^{20}$=+40.2(c 9.10,$CHCl_3$)
Source of chirality: asymm. reduction

Jiang,Y.Z.;Qin,Y.;Mi,A.Q.;and Huang,Z.T.

Tetrahedron: Asymmetry **1994**, *5*, 1211



C_8H_9ClO
R(+)-1-(4-Chlorophenyl)ethanol

E.e.=88.7% [by optical rotation]

$[\alpha]_D^{20}$=+44.2(c 4.20,Et_2O)

Source of chirality: asymm. reduction

Jiang,Y.Z.;Qin,Y.;Mi,A.Q.;and Huang,Z.T.

Tetrahedron: Asymmetry **1994**, *5*, 1211

$C_4H_{10}O$
R(–)-2-Butanol

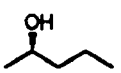
E.e.=22.7% [by optical rotation]

$[\alpha]_D^{20}$=–3.07(neat)

Source of chirality: asymm. reduction

Jiang,Y.Z.;Qin,Y.;Mi,A.Q.;and Huang,Z.T.

Tetrahedron: Asymmetry **1994**, *5*, 1211



$C_5H_{12}O$
R(–)-2-Pentanol

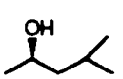
E.e.=26.0% [by optical rotation]

$[\alpha]_D^{20}$=–3.58(neat)

Source of chirality: asymm. reduction

Jiang,Y.Z.;Qin,Y.;Mi,A.Q.;and Huang,Z.T.

Tetrahedron: Asymmetry **1994**, *5*, 1211



$C_6H_{14}O$
R(–)-4-Methyl-2-pentanol

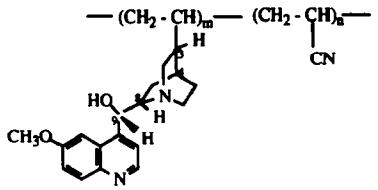
E.e.=19.3% [by optical rotation]

$[\alpha]_D^{20}$=–3.97(neat)

Source of chirality: asymm. reduction

Choong Eui Song, *Tae Hee Ryu, Eun Joo Roh, In O Kim and Hyun-Joon Ha

Tetrahedron: Asymmetry **1994**, *5*, 1215



Poly (quinidine-*co*-acrylonitrile)

E.e. = Probably 100%

(prepared from optically pure quinidine)

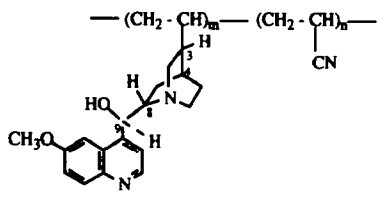
$[\alpha]_D$ +33.3 (c 1.0, DMF)

Source of Chirality : Quinidine

Absolute Configuration : 3R, 4S, 8R, 9S

Choong Eui Song, *Tae Hee Ryu, Eun Joo Roh, In O Kim and Hyun-Joon Ha

Tetrahedron: Asymmetry **1994**, *5*, 1215



Poly (quinine-*co*-acrylonitrile)

E.e. = Probably 100%

(prepared from optically pure quinine)

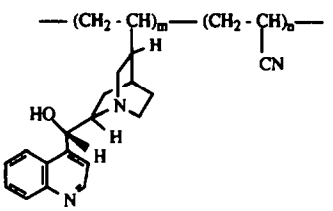
$[\alpha]_D$ -20.5 (c 1.0, DMF)

Source of Chirality: Quinine

Absolute Configuration: 3R, 4S, 8S, 9R

Choong Eui Song, *Tae Hee Ryu, Eun Joo Roh, In O Kim and Hyun-Joon Ha

Tetrahedron: Asymmetry **1994**, *5*, 1215



Poly (cinchonine-*co*-acrylonitrile)

E.e. = Probably 100%

(prepared from optically pure quinidine)

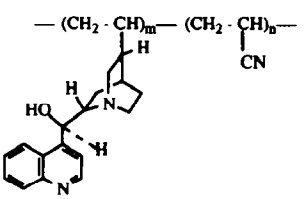
$[\alpha]_D$ +7.8 (c 1.0, DMF)

Source of Chirality : Cinchonine

Absolute Configuration : 3R, 4S, 8R, 9S

Choong Eui Song, *Tae Hee Ryu, Eun Joo Roh, In O Kim and Hyun-Joon Ha

Tetrahedron: Asymmetry **1994**, *5*, 1215



Poly (cinchonidine-*co*-acrylonitrile)

E.e. = Probably 100%

(prepared from optically pure cinchonidine)

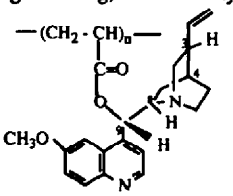
$[\alpha]_D$ -14.1 (c 1.0, DMF)

Source of Chirality: Cinchonidine

Absolute Configuration: 3R, 4S, 8S, 9R

Choong Eui Song, *Tae Hee Ryu, Eun Joo Roh, In O Kim and Hyun-Joon Ha

Tetrahedron: Asymmetry **1994,** *5,* 1215



Poly (acryloyl quinidine)

E.e. = Probably 100%

(prepared from opticallypure quinidine)

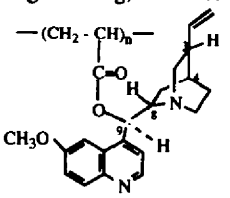
$[\alpha]_D$ +4.9 (c 1.0, $CHCl_3$)

Source of Chirality: Quinidine

Absolute Configuration: 3R, 4S, 8R, 9S

Choong Eui Song, *Tae Hee Ryu, Eun Joo Roh, In O Kim and Hyun-Joon Ha

Tetrahedron: Asymmetry **1994,** *5,* 1215



Poly (acryloyl quinine)

E.e. = Probably 100%

(prepared from optically pure quinine)

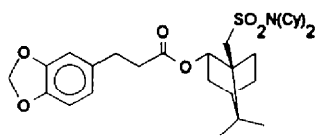
$[\alpha]_D$ -14.8 (c 1.0, $CHCl_3$)

Source of Chirality : Quinine

Absolute Configuration : 3R, 4S, 8S, 9R

H.C.A. Filho, U.F.L. Filho, S. Pinheiro, M..L.A.A. Vasconcellos and P.R.R. Costa.

Tetrahedron: Asymmetry **1994,** *5,* 1219



$[\alpha]_D^{25}$ = -26 (c = 1, $CHCl_3$).

e.e. = 100%

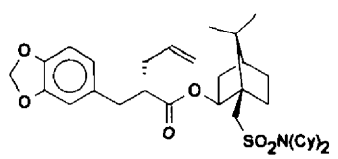
Source of chirality: (−)-10-dicyclohexylsulfamoyl-D-isoborneol

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

3-[(3',4'-methylenedioxy)phenyl]propanoic acid, (1S, 2R)-10-(N,N,dicyclohexylaminesulfamoyl) born-2-yl ester.

H.C.A. Filho, U.F.L. Filho, S. Pinheiro, M..L.A.A. Vasconcellos and P.R.R. Costa.

Tetrahedron: Asymmetry **1994,** *5,* 1219



$[\alpha]_D^{25}$ = +22 (c = 1.8, $CHCl_3$).

d.e. = 94% (det. by ^1H NMR)

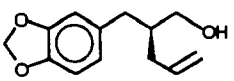
Source of chirality: (+)-10-dicyclohexylsulfamoyl-L-isoborneol

Absolute configuration of α-carbonyl stereocenter: S

2-allyl-3-[(3',4'-methylenedioxy)phenyl]propanoic acid, (1R, 2S)-10-(N,N,dicyclohexylaminesulfamoyl)born-2-yl ester.

H.C.A. Filho, U.F.L. Filho, S. Pinheiro, M..L.A.A. Vasconcellos and P.R.R. Costa.

Tetrahedron: Asymmetry **1994**, *5*, 1219

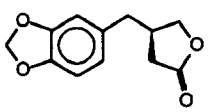


$[\alpha]_D^{25} = -10$ (c = 0.5, $CHCl_3$).
Source of chirality: (+)-10-dicyclohexylsulfamoyl-L-isoborneol
Absolute configuration: **S**

(2S)-(−)-2-allyl-[3',4'-(methylenedioxy)phenyl] propan-1-ol.

H.C.A. Filho, U.F.L. Filho, S. Pinheiro, M..L.A.A. Vasconcellos and P.R.R. Costa.

Tetrahedron: Asymmetry **1994**, *5*, 1219

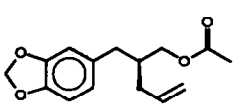


$[\alpha]_D^{25} = +3.1$ (c = 3.8, $CHCl_3$).
Source of chirality: (+)-10-dicyclohexylsulfamoyl-L-isoborneol
Absolute configuration: **R**

(R)-(+)-β-piperonyl-γ-butyrolactone

H.C.A. Filho, U.F.L. Filho, S. Pinheiro, M..L.A.A. Vasconcellos and P.R.R. Costa.

Tetrahedron: Asymmetry **1994**, *5*, 1219

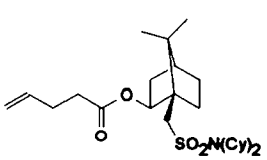


$[\alpha]_D^{25} = +11{,}8$ (c = 1.3, $CHCl_3$).
e.e. = 86% (det. by ^1H NMR using $Eu(hfc)_3$)
Source of chirality: (+)-10-dicyclohexylsulfamoyl-L-isoborneol
Absolute configuration: **S**

(2S)-(+)-2-allyl-[3',4'-(methylenedioxy)phenyl]propan-1-ol, acetate.

H.C.A. Filho, U.F.L. Filho, S. Pinheiro, M..L.A.A. Vasconcellos and P.R.R. Costa.

Tetrahedron: Asymmetry **1994**, *5*, 1219



$[\alpha]_D^{25} = +4.0$ (c = 3.6, $CHCl_3$).
e.e. = 100%
Source of chirality: (+)-10-dicyclohexylsulfamoyl-L-isoborneol
Absolute configuration: **1R, 2S**

4-pentenoic acid, (1R, 2S)-10-(N,N,dicyclohexylaminesulfamoyl)born-2-yl ester.

Carmen Alcaraz and Manuel Bernabé

Tetrahedron: Asymmetry **1994**, *5*, 1221

$[\alpha]_D$ = +2 (c 0.7, $CHCl_3$)

Source of chirality: natural (*D*-Ser) and asymm. synth.

Absolute configuration 4S,1'S,2'R
(assigned on the basis of 1D and 2D ^{1}H-NMR data)

$C_{18}H_{31}NO_5$

tert-butyl *(E)*-4-[2'-(1",3"-dioxan-2"yl)methylenecyclopropyl]-2,2-dimethyl-3-oxazolidinecarboxylate

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Carmen Alcaraz and Manuel Bernabé

Tetrahedron: Asymmetry **1994**, *5*, 1221

$[\alpha]_D$ = +1 (c 1.05, $CHCl_3$)

Source of chirality: natural (*D*-Ser) and asymm. synth.

Absolute configuration 4S,1'S,2'S
(assigned on the basis of 1D and 2D ^{1}H-NMR data)

$C_{18}H_{31}NO_5$

tert-butyl *(Z)*-4-[2'-(1",3"-dioxan-2"yl)methylenecyclopropyl]-2,2-dimethyl-3-oxazolidinecarboxylate

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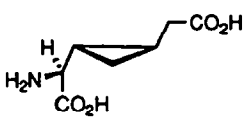
Carmen Alcaraz and Manuel Bernabé

Tetrahedron: Asymmetry **1994**, *5*, 1221



$[\alpha]_D$ = +13 (c 0.67, H_2O)

Source of chirality: natural (*D*-Ser) and asymm. synth.

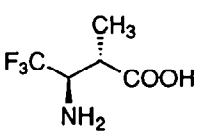
Absolute configuration 2S,1'S,2'R
(assigned by NMR spectroscopy of synth. intermed.)

$C_7H_{11}NO_4$

(*E*)-2-(2'-Carboxymethylcyclopropyl)glycine

V. A. Soloshonok,* A. G. Kirilenko, N. A. Fokina, V. P. Kukhar, S. V. Galushko, V. K. Švedas, G. Resnati

Tetrahedron: Asymmetry **1994**, *5*, 1225



$C_5H_8F_3NO_2$
2-Methyl-4,4,4-trifluoro-
3-aminobutanoic acid

E.e. = >95% [by HPLC analysis of free amino acid on Nucleasil Chiral, Macherey-Nagel]

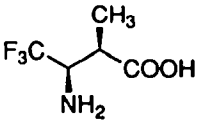
$[\alpha]_D^{25}$ +18.7 (*c* 0.3, H_2O)

Source of chirality: Biocatalytic resolution

Absolute configuration: 2*S*,3*R*
(assigned by similarity in the rate of enzymatic hydrolysis)

V. A. Soloshonok,* A. G. Kirilenko, N. A. Fokina, V. P. Kukhar, S. V. Galushko, V. K. Švedas, G. Resnati

Tetrahedron: Asymmetry **1994**, *5*, 1225



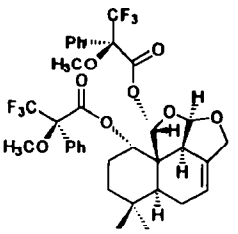
$C_5H_8F_3NO_2$
2-Methyl-4,4,4-trifluoro-3-aminobutanoic acid

E.e. = >95% (by HPLC analysis of free amino acid on Nucleasil Chiral, Macherey-Nagel)
$[\alpha]_D^{25}$ +20.9 (*c* 0.5, H_2O)

Source of chirality: Biocatalytic resolution
Absolute configuration: 2*R*,3*R*
(assigned by similarity in the rate of enzymatic hydrolysis)

R. Velten, W. Steglich and T. Anke

Tetrahedron: Asymmetry **1994**, *5*, 1229



$[\alpha]_D^{20}$ = +72 (*c* 0.40, $CHCl_3$)
Source of chirality: (+)-1α,15-dihydroxymarasmene
Absolute configuration: 1*S*, 5*S*, 9*S*, 10*R*, 11*R*, 15*S*, 2'*R*
(determined by high field NMR application of the Mosher method)

$C_{35}H_{36}O_8F_6$
1α,15α-Bis[(*R*)-2'-methoxy-2'-trifluoromethylphenylacetyl]marasmene

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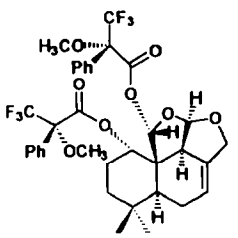
R. Velten, W. Steglich and T. Anke

Tetrahedron: Asymmetry **1994**, *5*, 1229



$[\alpha]_D^{20}$ = +13 (*c* 0.60, $CHCl_3$)
Source of chirality: (+)-1α,15-dihydroxymarasmene
Absolute configuration 1*S*, 5*S*, 9*S*, 10*R*, 11*R*, 15*S*, 2'*S*
determined by high field NMR application of the Mosher method

$C_{35}H_{36}O_8F_6$
1α,15α-Bis[(*S*)-2'-methoxy-2'-trifluoromethylphenylacetyl]marasmene

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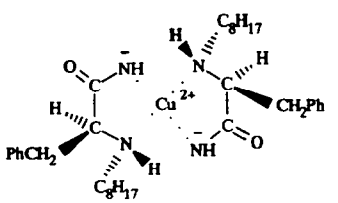
G. Galaverna, G. Pelosi, G. Gasparri Fava, M. Ferrari Belicchi, A. Dossena and R. Marchelli

Tetrahedron: Asymmetry **1994**, *5*, 1233

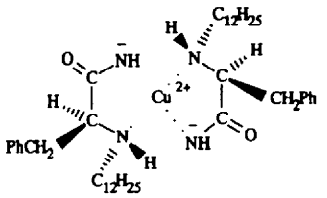


CD: $[\Theta]_{409}$=+3100 (c=1 mM MeOH pH=11)
$[\Theta]_{520}$=−3000 (c=1 mM MeOH pH=11)
Absolute configuration: C(2A)S, N(2A)R, C(2B)S, N(2B)R
Source of chirality: natural amino acids, asymmetric disposition of alkyl group on nitrogens
Chelate ring puckering: δδ

$C_{34}H_{58}CuN_4O_4$
Bis[N^2-n-octyl-(S)-phenylalaninamidato]copper(II) dihydrate

G. Galaverna, G. Pelosi, G. Gasparri Fava, M. Belicchi Ferrari, A. Dossena and R. Marchelli

Tetrahedron: Asymmetry **1994**, *5*, 1233

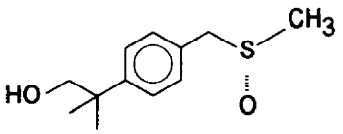


CD: $[\Theta]_{465}$=+2375 (c=1 mM MeOH pH=11)
$[\Theta]_{550}$=−2500 (c=1 mM MeOH pH=11)
Absolute configuration: C(2A)S, N(2A)R, C(2B)S, N(2B)R
Source of chirality: natural amino acids, asymmetric disposition of alkyl group on nitrogens
Chelate ring puckering: δδ

$C_{42}H_{74}CuN_4O_4$
Bis[N^2-n-octyl-(S)-phenylalaninamidato]copper(II) dihydrate

H.L. Holland, F.M. Brown and B.G. Larsen

Tetrahedron: Asymmetry **1994**, *5*, 1241



E.e. 76% [by nmr with (*S*)-α-methoxyphenyl acetic acid]
$[\alpha]_D$ −6.6 (c 0.99, $CHCl_3$); +56.6 (c 0.87, EtOH)

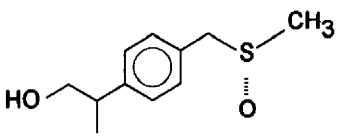
Source of chirality: biotransformation of sulfide

$C_{12}H_{18}O_2S$
p.(1,1-Dimethyl-2-hydroxyethyl)benzyl methyl sulfoxide

Absolute configuration (*S*) (assigned by nmr with with (*S*)-α-methoxyphenyl acetic acid)

H.L. Holland, F.M. Brown and B.G. Larsen

Tetrahedron: Asymmetry **1994**, *5*, 1241



E.e. 80% [by nmr with (*S*)-α-methoxyphenyl acetic acid]
$[\alpha]_D$ +2.1 (c 0.46, $CHCl_3$); +77.0 (c 0.5, EtOH)

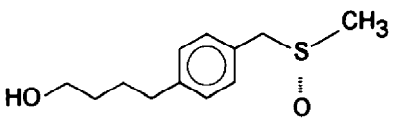
Source of chirality: biotransformation of sulfide

$C_{11}H_{16}O_2S$
p.(1-Methyl-2-hydroxyethyl)benzyl methyl sulfoxide

Absolute configuration (S_S) (assigned by nmr with with (*S*)-α-methoxyphenyl acetic acid)

H.L. Holland, F.M. Brown and B.G. Larsen

Tetrahedron: Asymmetry **1994**, *5*, 1241



E.e. >95% [by nmr with (*S*)-α-methoxyphenyl acetic acid]
$[\alpha]_D$ −40.6 (c 0.35, $CHCl_3$); +59.7 (c 0.51, EtOH)

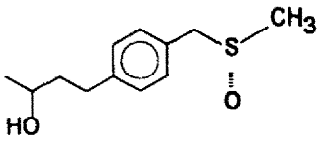
Source of chirality: biotransformation of sulfide

$C_{12}H_{18}O_2S$
p.(4-Hydroxybutyl)benzyl methyl sulfoxide

Absolute configuration (*S*) (assigned by nmr with with (*S*)-α-methoxyphenyl acetic acid)

H.L. Holland, F.M. Brown and B.G. Larsen

Tetrahedron: Asymmetry **1994**, *5*, 1241



E.e. >95% [by nmr with (*S*)-α-methoxyphenyl acetic acid]
$[\alpha]_D$ not determined

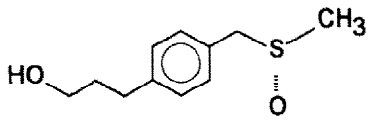
Source of chirality: biotransformation of sulfide

$C_{12}H_{18}O_2S$
p.(3-Hydroxybutyl)benzyl methyl sulfoxide

Absolute configuration (S_S)
(assigned by nmr with with (*S*)-α-methoxyphenyl acetic acid)

H.L. Holland, F.M. Brown and B.G. Larsen

Tetrahedron: Asymmetry **1994**, *5*, 1241



E.e. 95% [by nmr with (*S*)-α-methoxyphenyl acetic acid]
$[\alpha]_D$ −36.3 (c 0.4, $CHCl_3$); +61.5 (c 0.41, EtOH)

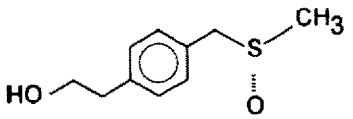
Source of chirality: biotransformation of sulfide

$C_{11}H_{16}O_2S$
p.(3-Hydroxypropyl)benzyl methyl sulfoxide

Absolute configuration (S_S)
(assigned by nmr with with (*S*)-α-methoxyphenyl acetic acid)

H.L. Holland, F.M. Brown and B.G. Larsen

Tetrahedron: Asymmetry **1994**, *5*, 1241



E.e. 74% [by nmr with (*S*)-α-methoxyphenyl acetic acid]
$[\alpha]_D$ −16.8 (c 0.29, $CHCl_3$); +61.3 (c 0.22, EtOH)

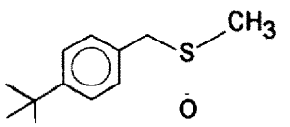
Source of chirality: biotransformation of sulfide

$C_{10}H_{14}O_2S$
p.(2-hydroxyethyl)benzyl methyl sulfoxide

Absolute configuration (*S*)
(assigned by nmr with with (*S*)-α-methoxyphenyl acetic acid)

H.L. Holland, F.M. Brown and B.G. Larsen

Tetrahedron: Asymmetry **1994**, *5*, 1241



E.e. 26% [by nmr with (*S*)-α-methoxyphenyl acetic acid]
$[\alpha]_D$ −17.1 (c 0.35, $CHCl_3$); +20.0 (c 0.25, EtOH)

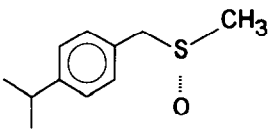
Source of chirality: biotransformation of sulfide

$C_{12}H_{18}OS$
p.(t.Butyl)benzyl methylsulfoxide

Absolute configuration (*S*)
(assigned by nmr with with (*S*)-α-methoxyphenyl acetic acid)

H.L. Holland, F.M. Brown and B.G. Larsen

Tetrahedron: Asymmetry **1994**, *5*, 1241



$C_{11}H_{16}OS$
Methyl *p*.isopropylbenzyl sulfoxide

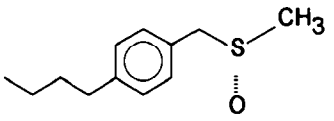
E.e. 70% [by nmr with (*S*)-α-methoxyphenyl acetic acid]
$[\alpha]_D$ −42.6 (c 0.45, $CHCl_3$); +51.9 (c 0.65, EtOH)

Source of chirality: biotransformation of sulfide

Absolute configuration (*S*)
(assigned by nmr with with (*S*)-α-methoxyphenyl acetic acid)

H.L. Holland, F.M. Brown and B.G. Larsen

Tetrahedron: Asymmetry **1994**, *5*, 1241



$C_{12}H_{18}OS$
p.Butylbenzyl methyl sulfoxide

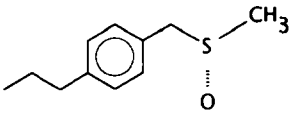
E.e. 85% [by nmr with (*S*)-α-methoxyphenyl acetic acid]
$[\alpha]_D$ −47.3 (c 2.64, $CHCl_3$); +60.4 (c 1.04, EtOH)

Source of chirality: biotransformation of sulfide

Absolute configuration (*S*)
(assigned by nmr with with (*S*)-α-methoxyphenyl acetic acid)

H.L. Holland, F.M. Brown and B.G. Larsen

Tetrahedron: Asymmetry **1994**, *5*, 1241



$C_{11}H_{16}OS$
Methyl *p*.propylbenzyl sulfoxide

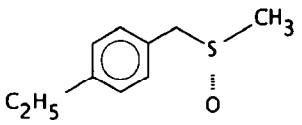
E.e. 85% [by nmr with (*S*)-α-methoxyphenyl acetic acid]
$[\alpha]_D$ −50.3 (c 0.6, $CHCl_3$); +61.5 (c 0.41, EtOH)

Source of chirality: biotransformation of sulfide

Absolute configuration (*S*)
(assigned by nmr with with (*S*)-α-methoxyphenyl acetic acid)

H.L. Holland, F.M. Brown and B.G. Larsen

Tetrahedron: Asymmetry **1994**, *5*, 1241



$C_{10}H_{14}OS$
p.Ethylbenzyl methyl sulfoxide

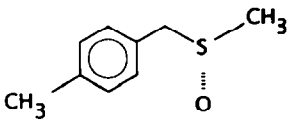
E.e. 74% [by nmr with (*S*)-α-methoxyphenyl acetic acid]
$[\alpha]_D$ −49.6 (c 1.82, $CHCl_3$); +65.9 (c 0.71, EtOH)

Source of chirality: biotransformation of sulfide

Absolute configuration (*S*)
(assigned by nmr with with (*S*)-α-methoxyphenyl acetic acid)

H.L. Holland, F.M. Brown and B.G. Larsen

Tetrahedron: Asymmetry **1994**, *5*, 1241



$C_9H_{12}OS$
Methyl *p*.methylbenzyl sulfoxide

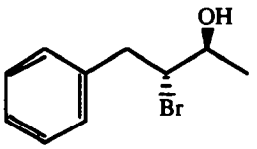
E.e. 56% [by nmr with (*S*)-α-methoxyphenyl acetic acid]
$[\alpha]_D$ −37.1 (c 1.8, $CHCl_3$); +40.3 (c 0.86, EtOH)

Source of chirality: biotransformation of sulfide

Absolute configuration (*S*)
(assigned by nmr with with (*S*)-α-methoxyphenyl acetic acid)

P. Besse, M.F. Renard and H. Veschambre

Tetrahedron: Asymmetry **1994**, *5*, 1249

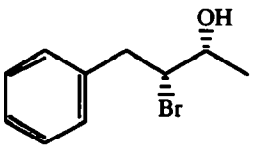


$C_{10}H_{13}BrO$
(2S,3R)-4-phenyl-3-bromo-2-butanol

E.e. ≥ 95 % (by ^1H NMR spectroscopy using the chiral shift reagent Eu(tfc)$_3$)
$[\alpha]_J^{25}$ = + 37 (c = 0.06, $CHCl_3$)
Source of chirality : Microbiological reduction
Absolute configuration : 2S, 3R
(assigned by X-ray structure analysis of the camphanate ester)

P. Besse, M.F. Renard and H. Veschambre

Tetrahedron: Asymmetry **1994**, *5*, 1249

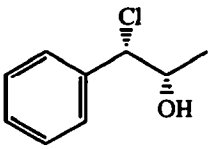


$C_{10}H_{13}BrO$
(2R,3R)-4-phenyl-3-bromo-2-butanol

E.e. = 92 % (by ^1H NMR spectroscopy using the chiral shift reagent Eu(tfc)$_3$)
$[\alpha]_J^{25}$ = - 34 (c = 0.02, $CHCl_3$)
Source of chirality : Microbiological reduction
Absolute configuration : 2R, 3R
(assigned by X-ray structure analysis of the camphanate ester)

P. Besse, M.F. Renard and H. Veschambre

Tetrahedron: Asymmetry **1994**, *5*, 1249

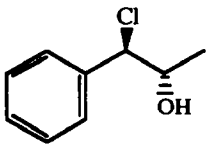


$C_9H_{11}ClO$
(1S,2S)-1-phenyl-1-chloro-2-propanol

E.e. ≥ 98 % (by GC analysis with chiral column : Lipodex E)
$[\alpha]_J^{25}$ = + 122 (c = 0.03, $CHCl_3$)
Source of chirality : Microbiological reduction
Absolute configuration : 1S, 2S
(assigned by chemical correlation)

P. Besse, M.F. Renard and H. Veschambre

Tetrahedron: Asymmetry **1994**, *5*, 1249

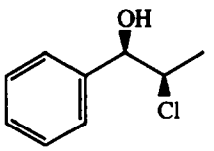


$C_9H_{11}ClO$
(1R,2S)-1-phenyl-1-chloro-2-propanol

E.e. ≥ 98 % (by GC analysis with chiral column : Lipodex E)
$[\alpha]_J^{25}$ = - 80 (c = 0.03, $CHCl_3$)
Source of chirality : Microbiological reduction
Absolute configuration : 1R, 2S
(assigned by chemical correlation)

P. Besse, M.F. Renard and H. Veschambre

Tetrahedron: Asymmetry **1994**, *5*, 1249

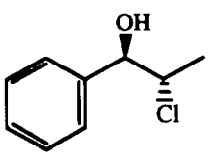


$C_9H_{11}ClO$
(1R,2R)-1-phenyl-2-chloro-1-propanol

E.e. ≥ 98 % (by GC analysis with chiral column : Lipodex E)
$[\alpha]_J^{25}$ = - 48 (c = 0.02, $CHCl_3$)
Source of chirality : Microbiological reduction
Absolute configuration : 1R, 2R
(assigned by chemical correlation)

P. Besse, M.F. Renard and H. Veschambre

Tetrahedron: Asymmetry **1994**, *5*, 1249

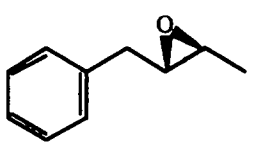


$C_9H_{11}ClO$
(1R,2S)-1-phenyl-2-chloro-1-propanol

E.e. ≥ 98 % (by GC analysis with chiral column : Lipodex E)
$[\alpha]_J^{25}$ = - 31 (c = 0.02, $CHCl_3$)
Source of chirality : Microbiological reduction
Absolute configuration : 1R, 2S
(assigned by chemical correlation)

P. Besse, M.F. Renard and H. Veschambre

Tetrahedron: Asymmetry **1994**, *5*, 1249

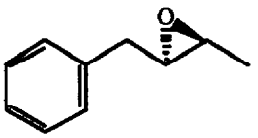


$C_{10}H_{12}O$
(2S,3R)-4-phenyl-2,3-epoxybutane

E.e. ≥ 98 % (by GC analysis with chiral column : Lipodex E)
$[\alpha]_J^{25}$ = - 21 (c = 0.04, $CHCl_3$)
Source of chirality : From a chiral precursor obtained by microbiological reduction
Absolute configuration : 2S, 3R
(assigned based on the reaction mechanism)

P. Besse, M.F. Renard and H. Veschambre

Tetrahedron: Asymmetry **1994**, *5*, 1249

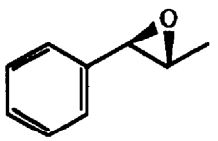


$C_{10}H_{12}O$
(2S,3S)-4-phenyl-2,3-epoxybutane

E.e. ≥ 98 % (by GC analysis with chiral column : Lipodex E)
$[\alpha]_J^{25}$ = - 27 (c = 0.04, $CHCl_3$)
Source of chirality : From a chiral precursor obtained by microbiological reduction
Absolute configuration : 2S, 3S
(assigned based on the reaction mechanism)

P. Besse, M.F. Renard and H. Veschambre

Tetrahedron: Asymmetry **1994**, *5*, 1249

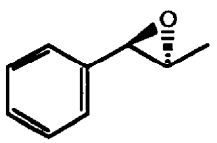


$C_9H_{10}O$
(1R,2S)-1-phenyl-1,2-epoxypropane

E.e. ≥ 98 % (by GC analysis with chiral column : Lipodex E)
$[\alpha]_J^{25}$ = - 42 (c = 0.04, $CHCl_3$)
Source of chirality : From a chiral precursor obtained by microbiological reduction
Absolute configuration : 1R, 2S
(assigned by comparison with literature data)

P. Besse, M.F. Renard and H. Veschambre

Tetrahedron: Asymmetry **1994**, *5*, 1249

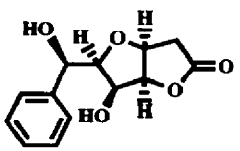


$C_9H_{10}O$
(1R,2R)-1-phenyl-1,2-epoxypropane

E.e. ≥ 98 % (by GC analysis with chiral column : Lipodex E)
$[\alpha]_J^{25}$ = + 46 (c = 0.02, $CHCl_3$)
Source of chirality : From a chiral precursor obtained by microbiological reduction
Absolute configuration : 1R, 2R
(assigned by comparison with literature data)

Tony K. M. Shing and Hon-Chung Tsui

Tetrahedron: Asymmetry **1994**, *5*, 1269

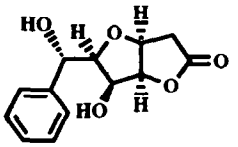


$[\alpha]_D^{24}$ – 24 (*c* 0.5, $CHCl_3$)
m.p. 155—156 °C
Source of chirality: D-mannitol
Absolute configuration: 4S,5R,6R,7R,8R

$C_{13}H_{14}O_5$
3,6-anhydro-2-deoxy-D-*glycero*-D-*galacto*-octono-1,4-lactone

Tony K. M. Shing and Hon-Chung Tsui

Tetrahedron: Asymmetry **1994**, *5*, 1269



$[\alpha]_D^{28}$ + 13 (*c* 0.3, $CHCl_3$)

m.p. 124—125 °C

Source of chirality: D-mannitol

Absolute configuration: 3S,4R,5R,6R,7S

$C_{13}H_{14}O_5$

3,6-anhydro-2-deoxy-7-*C*-phenyl-L-*glyceo*-D-*galacto*-heptono-1,4-lactone

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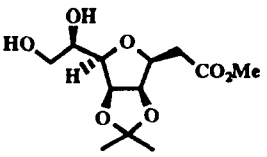
Tony K. M. Shing and Hon-Chung Tsui

Tetrahedron: Asymmetry **1994**, *5*, 1269



$[\alpha]_D^{24}$ - 7.2 (*c* 1.1, $CHCl_3$)

Source of chirality: D-mannitol

Absolute configuration: 3S,4R,5R,6R,7R

$C_{12}H_{20}O_7$

methyl 3,6-anhydro-2-deoxy-4,5-*O*-isopropylidene-D-*glycero*-D-*galacto*-octanoate

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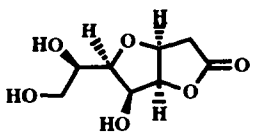
Tony K. M. Shing and Hon-Chung Tsui

Tetrahedron: Asymmetry **1994**, *5*, 1269



$[\alpha]_D^{24}$ – 63 (*c* 2.0, H_2O)

m.p. 169—171 °C

Source of chirality: D-mannitol

Absolute configuration: 3*S*,4*R*,5*R*,6*R*,7*R*

$C_8H_{12}O_6$

3,6-anhydro-2-deoxy-D-*glycero*-D-*galacto*-octono-1,4-lactone

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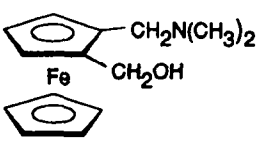
G. Nicolosi, A. Patti, R. Morrone and M. Piattelli

Tetrahedron: Asymmetry **1994**, *5*, 1275



e.e. = >95% by ^{1}H-NMR in the presence of Pirkle's alcohol

$[\alpha]_D$ = +32.9 (*c* 1.2, $CHCl_3$)

Source of chirality: Lipase mediated kinetic resolution

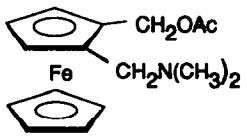
Absolute configuration: 1*R*

$C_{14}H_{19}FeNO$

(1*R*)-1-Hydroxymethyl-2-dimethylaminoferrocene

G. Nicolosi, A. Patti, R. Morrone and M. Piattelli

Tetrahedron: Asymmetry **1994**, *5*, 1275



$C_{16}H_{21}FeNO_2$

(1*S*)-1-Acetoxymethyl-2-dimethylaminomethylferrocene

e.e. = 92% by ^{1}H-NMR in the presence of Pirkle's alcohol

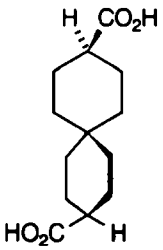
$[\alpha]_D$ = - 17.9 (*c* 2, $CHCl_3$)

Source of chirality: Lipase mediated kinetic resolution

Absolute configuration: 1*S*

U. Böhm, G. Voss, G. Möller and H. Gerlach

Tetrahedron: Asymmetry **1994**, *5*, 1281



$C_{13}H_{20}O_4$

(*aS*)-(−)-Spiro[5.5]undecane-3,9-dicarboxylic acid

E.e. ≥ 99% (derived from an enantiomerically pure precursor)

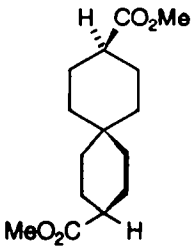
$[\alpha]_D^{20}$ = −9.8 (c = 1.83 in MeOH)

Source of chirality: (*aS*)-(−)-3,9-Bis(hydroxymethyl)spiro[5.5]undecane as precursor

Absolute configuration: *aS* [assigned by chemical correlation with the known (*aS*)-(−)-spiro[5.5]undecane-3,9-diol]

U. Böhm, G. Voss, G. Möller and H. Gerlach

Tetrahedron: Asymmetry **1994**, *5*, 1281



$C_{11}H_{20}O_2$

(a*S*)-(−)-Dimethyl spiro[5.5]undecane-3,9-dicarboxylate

E.e. ≥ 99% (derived from enantiomerically pure precursor)

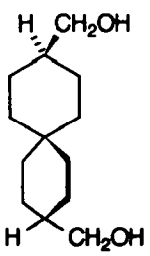
$[\alpha]_D^{20}$ = −7.5 (c = 0.5 in cyclohexane)

Source of chirality: (*aS*)-(−)-spiro[5.5]undecane-3,9-dicarboxylic acid as precursor

Absolute configuration: a*S* [assigned by chemical correlation with the known (*aS*)-(−)-spiro[5.5]undecane-3,9-diol]

U. Böhm, G. Voss, G. Möller and H. Gerlach

Tetrahedron: Asymmetry **1994**, *5*, 1281



$C_{11}H_{20}O_2$

(*aR*)-(+)-3,9-Bis(hydroxymethyl)spiro[5.5]undecane

E.e. ≥ 99% [by ^{1}H NMR of its (+)-bis(1*R*,4*S*)-camphanoate]

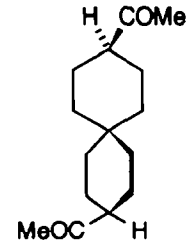
$[\alpha]_D^{20}$ = +31.2 (c = 2.45 in MeOH)

Source of chirality: resolution of racemate via diastereomeric bis(1*R*,4*S*)-camphanoates

Absolute configuration: *aR* [assigned by comparsion of sign of rotation with that of the known (*aS*)-(−)-enantiomer]

U. Böhm, G. Voss, G. Möller and H. Gerlach

Tetrahedron: Asymmetry **1994**, *5*, 1281



$C_{15}H_{24}O_2$

(*aS*)-(–)-3,9-Bis(acetyl)spiro[5.5]undecane

E.e. ≥ 99% (derived from an enantiomerically pure precursor)

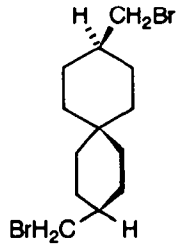
$[\alpha]_D^{20} = -10.6$ (c = 0.55 in cyclohexane)

Source of chirality: (*aS*)-(–)-spiro[5.5]undecane-3,9-dicarboxylic acid as precursor

Absolute configuration: *aS* [assigned by chemical correlation with the known (*aS*)-(–)-spiro[5.5]undecane-3,9-diol]

U. Böhm, G. Voss, G. Möller and H. Gerlach

Tetrahedron: Asymmetry **1994**, *5*, 1281



$C_{13}H_{22}Br_2$

(*aS*)-(–)-3,9-Bis(bromomethyl)spiro[5.5]undecane

E.e. ≥ 99% (derived from an enantiomerically pure precursor)

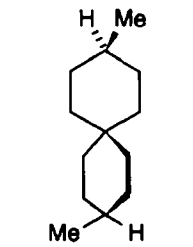
$[\alpha]_D^{20} = -21.4$ (c = 1.69 in cyclohexane)

Source of chirality: (*aS*)-(–)-bis(hydroxymethyl)spiro[5.5]undecane-3,9-diol as precursor

Absolute configuration: *aS* [assigned by chemical correlation with the known (*aS*)-(–)-3,9-Bis(hydroxymethyl)spiro[5.5]undecane]

U. Böhm, G. Voss, G. Möller and H. Gerlach

Tetrahedron: Asymmetry **1994**, *5*, 1281



$C_{13}H_{24}$

(*aS*)-(–)-3,9-Bis(methyl)spiro[5.5]undecane

E.e. ≥ 99% (derived from an enantiomerically pure precursor)

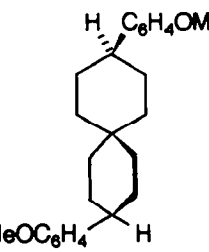
$[\alpha]_D^{20} = -31$ (c = 0.69 in cyclohexane)

Source of chirality: (*aS*)-(–)-3,9-bis(bromomethyl)spiro[5.5]undecane as precursor

Absolute configuration: *aS* [assigned by chemical correlation with the known (*aS*)-(–)-3,9-Bis(hydroxymethyl)spiro[5.5]undecane]

U. Böhm, G. Voss, G. Möller and H. Gerlach

Tetrahedron: Asymmetry **1994**, *5*, 1281



$C_{25}H_{32}O_4$

(*aS*)-(+)-3,9-Bis(4-methoxyphenyl)spiro[5.5]undecane

E.e. ≥ 99% (derived from an enantiomerically pure precursor)

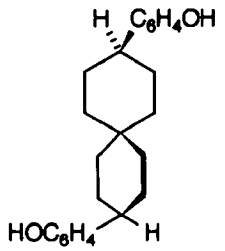
$[\alpha]_D^{20} = +6.2$ (c = 0.76 in $CHCl_3$)

Source of chirality: (*aS*)-(+)-3,9-bis(hydroxyphenyl)spiro[5.5]undecane as precursor

Absolute configuration: *aS* [assigned by chemical correlation with the known (*aS*)-(–)-spiro[5.5]undecane-3,9-dicarboxylic acid]

U. Böhm, G. Voss, G. Möller and H. Gerlach

Tetrahedron: Asymmetry **1994,** *5,* 1281

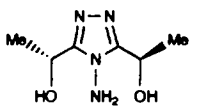


E.e. ≥ 99% [by oxidation to the enantiomerically pure (*aS*)-(−)-spiro[5.5]undecane-3,9-dicarboxylic acid)]
$[\alpha]_D^{20}$ = +12.2 (c =12.2 in MeCN)
Source of chirality: resolution of racemate via diastereomeric bis(1*S*,4*R*)-camphanoates
Absolute configuration: *aS* [assigned by chemical correlation with the known (*aS*)-(−)-spiro[5.5]undecane-3,9-dicarboxylic acid]

$C_{25}H_{32}O_4$
(*aS*)-(+)-3,9-Bis(4-hydroxyphenyl)spiro[5.5]undecane

M.V. Martínez-Díaz, J. de Mendoza, F. Santos and T. Torres*

Tetrahedron: Asymmetry **1994,** *5,* 1291

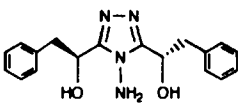


E.e. > 98 % (by ^{1}H NMR of (*S*)-(+)-MTPA esters of the cyanhydrin obtained by treatment of the compound with LTA)
$[\alpha]_D$ = - 31.5 (c = 1.5, H_2O)
Source of chirality: R-lactic acid
Absolute configuration: *R,R*

$C_6H_{12}N_4O_2$
4-amino-3,5-bis-(1-hydroxyethyl)-1,2,4-triazole

M.V. Martínez-Díaz, J. de Mendoza, F. Santos and T. Torres*

Tetrahedron: Asymmetry **1994,** *5,* 1291

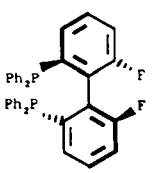


E.e. > 98 % (by ^{1}H NMR of (*S*)-(+)-MTPA esters of the cyanhydrin obtained by treatment of the compound with LTA)
$[\alpha]_D$ = - 54.4 (c = 0.5, HCl 2N)
Source of chirality: L-Phenyllactic
Absolute configuration: *S,S*

$C_{18}H_{20}N_4O_2$
4-amino-3,5-bis-(1-hydroxy-2-phenylethyl)-1,2,4-triazole

H. Jendralla, C.H. Li and E. Paulus

Tetrahedron: Asymmetry **1994,** *5,* 1297



E.e.= 100 % [by chiral phase HPLC of corresponding bis(phoshine oxide)]
$[\alpha]_D^{25}$ = +153.3 (c 1.02 , THF), +145.3 (c 0.47 , 1,4-dioxane), +123.7 (c 1.03, CH_2Cl_2), = +114.9 (c 0.99 , toluene), +95.5 (c 0.73, mesitylene), +46.7 (c 1.04, $CHCl_3$). = +21.4 (c 0.64 , *o*-xylene), -73.9 (c 0.46, tetralin)

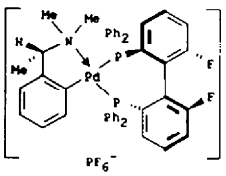
Source of chiraliy: resolution of racemate *via* diastereomeric palladium complexes

$C_{36}H_{26}F_2P_2$
(*S*)-(6,6'-Difluorobiphenyl-2,2'-diyl)-bis(diphenylphosphine)

Absolute configuration: S
(assigned by rel. X-Ray of synth. precursor)

H. Jendralla, C.H. Li and E. Paulus

Tetrahedron: Asymmetry **1994**, *5*, 1297



$C_{46}H_{40}F_8NP_3Pd$
{(*S*)-2-[1-(Dimethylamino)ethyl]-phenyl-C,N}
[(*S*)-(6,6'-difluorobiphenyl-2,2'-diyl)bis(diphenyl-phosphine)]palladium(II) Hexafluorophosphate

E.e.= 100 % [by chiral phase HPLC of corresponding bis(phoshine oxide)]

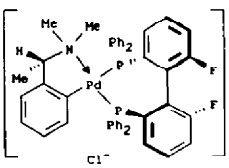
$[\alpha]_D^{25}$ = -203.2 (c 0.98 , acetone)

Source of chiraliy: separation from diastereomeric palladium complex

Absolute configuration: (S,S) (assigned by rel. X-Ray)

H. Jendralla, C.H. Li and E. Paulus

Tetrahedron: Asymmetry **1994**, *5*, 1297



$C_{46}H_{40}ClF_2NP_2Pd$
{(*S*)-2-[1-(Dimethylamino)ethyl]-phenyl-C,N}
[(*R*)-(6,6'-difluorobiphenyl-2,2'-diyl)bis(diphenyl-phosphine)]palladium(II) Chloride

E.e.= 100 % [by chiral phase HPLC of corresponding bis(phoshine oxide)]

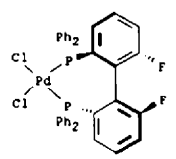
$[\alpha]_D^{25}$ = +208.0 (c 1.01 , CH_3OH)

Source of chiraliy: separation from diastereomeric palladium complex

Absolute configuration: (S,R) (assigned by rel. X-Ray)

H. Jendralla, C.H. Li and E. Paulus

Tetrahedron: Asymmetry **1994**, *5*, 1297



$C_{36}H_{26}Cl_2F_2P_2Pd$
[(*S*)-(6,6'-Difluorobiphenyl-2,2'-diyl)-bis(diphenylphosphine)]palladium(II) Chloride

E.e.= 100 % [by chiral phase HPLC of corresponding bis(phoshine oxide)]

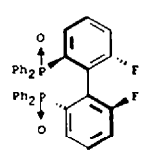
$[\alpha]_D^{25}$ = -311.9 (c 0.495 , CH_2Cl_2)

Source of chirality: homochiral precursor

Absolute configuration: S
(assigned by rel. X-Ray of synth. precursor)

H. Jendralla, C.H. Li and E. Paulus

Tetrahedron: Asymmetry **1994**, *5*, 1297



$C_{36}H_{26}F_2P_2O_2$
(*S*)-(6,6'-Difluorobiphenyl-2,2'-diyl)-bis(diphenylphosphine Oxide)

E.e.= 100 % [by chiral phase HPLC]

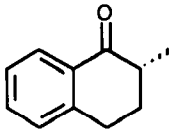
$[\alpha]_D^{20}$ = -11.3 (c 0.96 , $CHCl_3$), $[\alpha]_{365}^{20}$ = +57.0 (c 0.59, CH_3OH)

Source of chiraliy: homochiral precursor

Absolute configuration: S
(assigned by rel. X-Ray of synth. precursor)

S. Jamal Aboulhoda, F. Hénin, J. Muzart, C. Thorey, W. Behnen, J. Martens, T. Mehler

Tetrahedron: Asymmetry **1994**, *5*, 1321



$C_{11}H_{12}O$

(2*R*)-2-methyl-1-tetralone

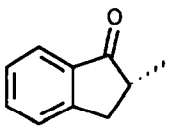
ee = 50% (from optical rotation and ^1H NMR analysis in the presence of Eu(hfc)3)

$[\alpha]_D^{20}$ = + 26 (c= 0.2, CH_2Cl_2)

Source of chirality: 2-benzyloxycarbonyl-2-methyl-tetral-1-one + Pd(0) / hydrogen / (+) *endo*-2-hydroxy-*endo*-3-aminobornane

S. Jamal Aboulhoda, F. Hénin, J. Muzart, C. Thorey, W. Behnen, J. Martens, T. Mehler

Tetrahedron: Asymmetry **1994**, *5*, 1321



$C_{10}H_{10}O$

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

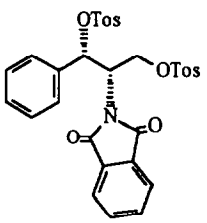
ee = 52% (from optical rotation)

$[\alpha]_D^{20}$ = - 21.8 (c= 0.24, CH_2Cl_2)

Source of chirality: 2-benzyloxycarbonyl-2-methyl-indan-1-one + Pd(0) / hydrogen / (*S*)-2-(hydroxymethyl)azetidine

M.D.Rozwadowska

Tetrahedron: Asymmetry **1994**, *5*, 1327



m.p. 174 -176°C

$[\alpha]_D$= + 38.4 (c=1.0; $CHCl_3$)

Source of chirality: (1S,2S)-1-Phenyl-2-phtalimido-1,3-propanediol

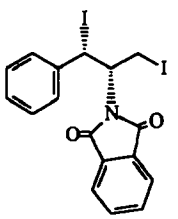
Absolute configuration: 1S,2S

$C_{31}H_{27}NO_8S_2$

(1S,2S)-1-Phenyl-2-phtalimido-1,3-propanediol ditosyl ester

M.D.Rozwadowska

Tetrahedron: Asymmetry **1994**, *5*, 1327



m.p. 194 -197°C

$[\alpha]_D$= + 138.1 (c=1.0; acetone)

Source of chirality: (1S,2S)-1-Phenyl-2-phtalimido-1,3-propanediol

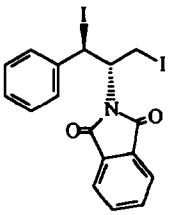
Absolute configuration: 1S,2S

$C_{17}H_{13}NI_2O_2$

(1S,2S)-1,3-Diiodo-1-phenyl-2-phtalimidopropane

M.D.Rozwadowska

Tetrahedron: Asymmetry **1994,** *5,* 1327



m.p. 136.5-139.5°C

$[\alpha]_D$= - 68.2 (c=1.0; acetone)

Source of chirality: (1S,2S)-1-Phenyl-2-phtalimido-1,3-propanediol

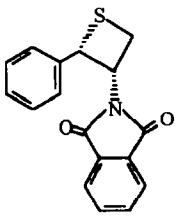
Absolute configuration: 1R,2S

$C_{17}H_{13}NI_2O_2$

(1R,2S)-1,3-Diiodo-1-phenyl-2-phtalimidopropane

M.D.Rozwadowska

Tetrahedron: Asymmetry **1994,** *5,* 1327



m.p. 122.5-124°C

$[\alpha]_D$= + 213.4 (c=1.0; acetone)

Source of chirality: Phtalic acid (2S,3S)-N-3(-2-phenylthietanyl) monoamid

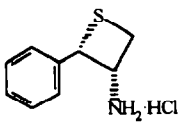
Absolute configuration: 2S,3S

$C_{17}H_{13}NO_2S$

(2S,3S)-2-Phenyl-3-phtalimidothietane

M.D.Rozwadowska

Tetrahedron: Asymmetry **1994,** *5,* 1327



m.p. 221-224°C,dec.

$[\alpha]_D$= + 121.6 (c=1.0; methanol)

Source of chirality: (2S,3S)-2-Phenyl-3-phtalimidothietane

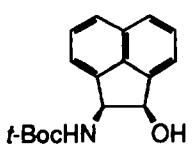
Absolute configuration: 2S,3S

$C_9H_{11}NS \cdot HCl$

(2S,3S)-3-Amino-2-phenylthietane hydrochloride

A. Sudo, Y. Hashimoto, H. Kimoto, K. Hayashi, and K. Saigo

Tetrahedron: Asymmetry **1994,** *5,* 1333



$C_{17}H_{19}NO_3$

(1*R*,2*S*)-*N*-*tert*-Butoxycarbonyl-2-amino-1-acenaphthenol

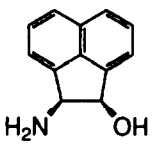
$[\alpha]_D^{22.8}$+12.3 ($CHCl_3$, c 1.55)

Source of chirality: resolution via (*S*)-2-phenylpropionate

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

A. Sudo, Y. Hashimoto, H. Kimoto, K. Hayashi, and K. Saigo

Tetrahedron: Asymmetry **1994**, *5*, 1333



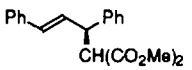
$C_{12}H_{11}NO$

(1*R*, 2*S*)-2-Amino-1-acenaphthenol

E. e. =99.4% (by chiral HPLC (Dicel Chiralcel OD) , after *N,O*-diacetylation)
$[\alpha]_D^{22.0}$+7.4 (MeOH, c 1.00) (after derivation into cinnamic acid salt)
Source of chirality: resolution via *N*-Boc-(*S*)-2-phenylpropionate
Absolute configuration: 1*R*, 2*S*

Jahyo Kang, Won Oh Cho and Hyung Geun Cho

Tetrahedron: Asymmetry **1994**, *5*, 1347

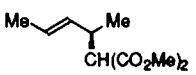


Methyl (*R*)-2-carbomethoxy-3,5-diphenylpent-4-enoate

E.e.= 88%
$[\alpha]_D^{22}$ = +11.98 (*c* = 0.69, EtOH)
Source of chirality: asymm. syn.
Absolute configuration: *R*

Jahyo Kang, Won Oh Cho and Hyung Geun Cho

Tetrahedron: Asymmetry **1994**, *5*, 1347

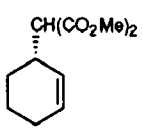


Methyl (*R*)-2-carbomethoxy-3-methylhex-4-enoate

E.e.= 69%
$[\alpha]_D^{22}$ = +15.43 (*c* = 0.92, $CHCl_3$)
Source of chirality: asymm. syn.
Absolute configuration: *R*

Jahyo Kang, Won Oh Cho and Hyung Geun Cho

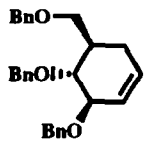
Tetrahedron: Asymmetry **1994**, *5*, 1347



Dimethyl (*S*)-2-cyclohexen-1-ylmalonate

E.e. = 62%
$[\alpha]_D^{22}$ = -8.69 (*c* = 1.36, CH_2Cl_2)
Source of chirality: asymm. syn.
Absolute configuration: *S*

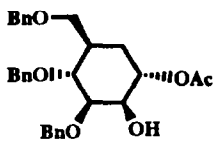
Vincent W.-F. Tai, P.-H. Fung, Y.-S. Wong and Tony K. M. Shing | *Tetrahedron: Asymmetry* **1994**, *5*, 1353



$[\alpha]_D^{21}$ + 2.4 (*c* 1.2, $CHCl_3$)
Source of chirality: (-)-quinic acid
Absolute configuration: 3*R*,4*R*,5*R*

$C_{28}H_{30}O_3$
(3*R*,4*R*,5*R*)-3,4-Di-*O*-benzyl-5-benzyloxymethyl-1-cyclohexen-3,4-diol

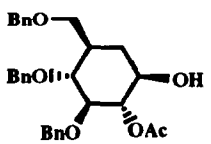
Vincent W.-F. Tai, P.-H. Fung, Y.-S. Wong and Tony K. M. Shing | *Tetrahedron: Asymmetry* **1994**, *5*, 1353



$[\alpha]_D^{19}$ + 33.0 (*c* 1.9, $CHCl_3$)
Source of chirality: (-)-quinic acid
Absolute configuration: 1*S*,2*R*,3*S*,4*R*,5*R*

$C_{30}H_{34}O_6$
(1*S*,2*R*,3*S*,4*R*,5*R*)-1-*O*-Acetyl-3,4-di-*O*-benzyl-5-benzyloxymethylcyclohexan-1,2,3,4-tetraol

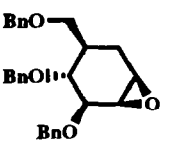
Vincent W.-F. Tai, P.-H. Fung, Y.-S. Wong and Tony K. M. Shing | *Tetrahedron: Asymmetry* **1994**, *5*, 1353



$[\alpha]_D^{19}$ + 28.0 (*c* 0.8, $CHCl_3$)
Source of chirality: (-)-quinic acid
Absolute configuration: 1*R*,2*S*,3*S*,4*R*,5*R*

$C_{30}H_{34}O_6$
(1*R*,2*S*,3*S*,4*R*,5*R*)-2-*O*-Acetyl-3,4-di-*O*-benzyl-5-benzyloxymethylcyclohexan-1,2,3,4-tetraol

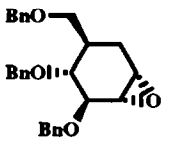
Vincent W.-F. Tai, P.-H. Fung, Y.-S. Wong and Tony K. M. Shing | *Tetrahedron: Asymmetry* **1994**, *5*, 1353



$[\alpha]_D^{21}$ + 29.3 (*c* 1.2, $CHCl_3$)
m.p. 60—62 °C
Source of chirality: (-)-quinic acid
Absolute configuration: 1*R*,2*R*,3*S*,4*R*,5*R*

$C_{28}H_{30}O_4$
(1*R*,2*R*,3*S*,4*R*,5*R*)-1,2-Anhydro-3,4-di-*O*-benzyl-5-benzyloxymethylcyclohexan-1,2,3,4-tetraol

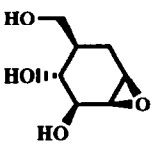
Vincent W.-F. Tai, P.-H. Fung, Y.-S. Wong and Tony K. M. Shing | *Tetrahedron: Asymmetry* **1994**, *5*, 1353



$[\alpha]_D^{21}$ + 18.2 (*c* 1.1, $CHCl_3$)
m.p. 32—34 °C
Source of chirality: (-)-quinic acid
Absolute configuration: 1*S*,2*S*,3*S*,4*R*,5*R*

$C_{28}H_{30}O_4$
(1*S*,2*S*,3*S*,4*R*,5*R*)-1,2-Anhydro-3,4-di-*O*-benzyl-5-benzyloxymethylcyclohexan-1,2,3,4-tetraol

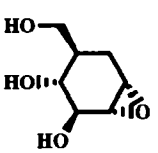
Vincent W.-F. Tai, P.-H. Fung, Y.-S. Wong and Tony K. M. Shing | *Tetrahedron: Asymmetry* **1994**, *5*, 1353



$[\alpha]_D^{26}$ - 2.0 (*c* 0.5, H_2O)
m.p. 125.5—127 °C
Source of chirality: (-)-quinic acid
Absolute configuration: 1*R*,2*R*,3*S*,4*R*,5*R*

$C_7H_{12}O_4$
(1*R*,2*R*,3*S*,4*R*,5*R*)-1,2-Anhydro-5-hydroxymethylcyclohexan-1,2,3,4-tetraol

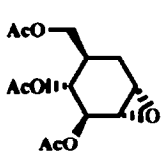
Vincent W.-F. Tai, P.-H. Fung, Y.-S. Wong and Tony K. M. Shing | *Tetrahedron: Asymmetry* **1994**, *5*, 1353



$[\alpha]_D^{26}$ + 37.1 (*c* 0.6, H_2O)
Source of chirality: (-)-quinic acid
Absolute configuration: 1*S*,2*S*,3*S*,4*R*,5*R*

$C_7H_{12}O_4$
(1*S*,2*S*,3*S*,4*R*,5*R*)-1,2-Anhydro-5-hydroxymethylcyclohexan-1,2,3,4-tetraol

Vincent W.-F. Tai, P.-H. Fung, Y.-S. Wong and Tony K. M. Shing | *Tetrahedron: Asymmetry* **1994**, *5*, 1353

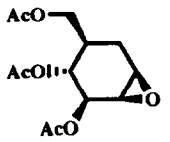


$[\alpha]_D^{26}$ + 41.7 (*c* 0.6, $CHCl_3$)
m.p. 59—61 °C
Source of chirality: (-)-quinic acid
Absolute configuration: 1*S*,2*S*,3*S*,4*R*,5*R*

$C_{13}H_{18}O_7$
(1*S*,2*S*,3*S*,4*R*,5*R*)-5-Acetoxymethyl-3,4-di-*O*-acetyl-1,2-anhydro-cyclohexan-1,2,3,4-tetraol

Vincent W.-F. Tai, P.-H. Fung, Y.-S. Wong and Tony K. M. Shing

Tetrahedron: Asymmetry **1994**, *5*, 1353



$[\alpha]_D^{25}$ - 9.6 (*c* 0.7, $CHCl_3$)
Source of chirality: (-)-quinic acid
Absolute configuration: 1*R*,2*R*,3*S*,4*R*,5*R*

$C_{13}H_{18}O_7$
(1*R*,2*R*,3*S*,4*R*,5*R*)-5-Acetoxymethyl-3,4-di-*O*-acetyl-1,2-anhydro-cyclohexan-1,2,3,4-tetraol

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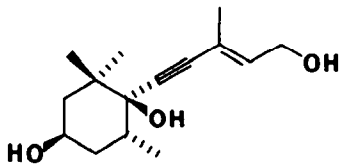
J.A. Haugan, P. Kongsaeree, J. Clardy and S. Liaaen-Jensen

Tetrahedron: Asymmetry **1994**, *5*, 1367



$C_{15}H_{24}O_2$

$[\alpha]^{20}_D$=-22.4 (c=0.006, MeOH)
UV, MS, ^{1}H NMR
Source of chirality: synthesis
Absolute configuration: assigned by X-ray analysis (relative configuration) and from chiral synthon

2-*E*-5-((1*S*,4*R*,6*R*)-1,4-Dihydroxy-2,2,6-trimethylcyclohexyl)-3-methyl-2-penten-4-yn-1-ol

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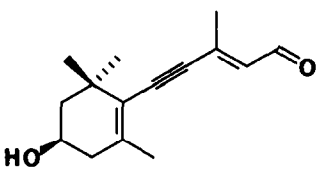
J.A. Haugan, P. Kongsaeree, J. Clardy and S. Liaaen-Jensen

Tetrahedron: Asymmetry **1994**, *5*, 1367



$C_{15}H_{20}O_2$

CD, nm (Δε) EPA: 205 (-0.6), 212 (-1.6), 220 (-0.8), 226 (-0.7)
UV, IR, MS, ^{1}H NMR,
$[\alpha]^{29}_D$=-61.5 (c=0.004, MeOH)
Source of chirality: synthon

2-*E*-5-((4*R*)-4-hydroxy-2,6,6-trimethylcyclohex-1-enyl)-3-methyl-2-penten-4-yn-1-al

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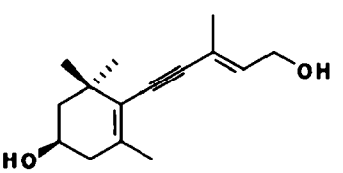
J.A. Haugan, P. Kongsaeree, J. Clardy and S. Liaaen-Jensen

Tetrahedron: Asymmetry **1994**, *5*, 1367



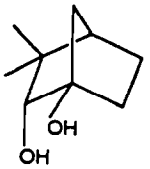
$C_{15}H_{22}O_2$

[a]27D=-78.2 (c=0.064, MeOH)
UV, MS, ^{1}H NMR
Source of chirality: synthon

2-*E*-5-((4*R*)-4-hydroxy-2,6,6-trimethylcyclohex-1-enyl)-3-methyl-2-penten-4-yn-1-ol

A. García Martínez, E. Teso Vilar, A. García Fraile,
S. de la Moya Cerero, L. R. Subramanian.

Tetrahedron: Asymmetry **1994**, *5*, 1373

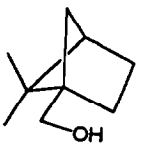


$[\alpha]_D^{20}$= -8.7 (c 1.51, MeOH)
Source of chirality: natural (+)-(1*R*)-1,7,7-trimethyl-2-norbornanone
[(1*R*)-camphor]
Absolute configuration: 1R,2R,4R

$C_9H_{16}O_2$
1,2-dihydroxy-3,3-dimethylnorbornane

A. García Martínez, E. Teso Vilar, A. García Fraile,
S. de la Moya Cerero, L. R. Subramanian.

Tetrahedron: Asymmetry **1994**, *5*, 1373

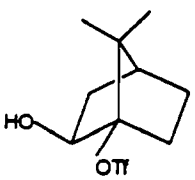


$[\alpha]_D^{20}$= +5.3 (c 0.76, MeOH)
Source of chirality: natural (+)-(1*R*)-1,7,7-trimethyl-2-norbornanone
[(1*R*)-camphor]
Absolute configuration: 1R,4R

$C_9H_{16}O$
5,5-dimethyl-1-hydroxymethylbicyclo[2.1.1]hexane

A. García Martínez, E. Teso Vilar, A. García Fraile,
S. de la Moya Cerero, L. R. Subramanian.

Tetrahedron: Asymmetry **1994**, *5*, 1373



$[\alpha]_D^{20}$= +33.7 (c 0.40, MeOH)
Source of chirality: natural (-)-(1*R*)-1,3,3-trimethyl-2-norbornanone
[(1*R*)-fenchone]
Absolute configuration: 1R,2S,4S

$C_{10}H_{15}F_3O_4S$
7,7-dimethyl-2-hydroxy-1-trifluoromethylsulfonyloxynorbornane

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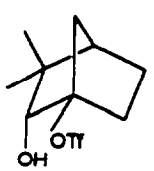
A. García Martínez, E. Teso Vilar, A. García Fraile,
S. de la Moya Cerero, L. R. Subramanian.

Tetrahedron: Asymmetry **1994**, *5*, 1373

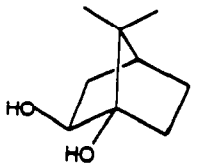


$[\alpha]_D^{20}$= -21.3 (c 0.74, MeOH)
Source of chirality: natural (+)-(1*R*)-1,7,7-trimethyl-2-norbornanone
[(1*R*)-camphor]
Absolute configuration: 1R,2R,4R

$C_{10}H_{15}F_3O_4S$
3,3-dimethyl-2-hydroxy-1-trifluoromethylsulfonyloxynorbornane

A. García Martínez, E. Teso Vilar, A. García Fraile,
S. de la Moya Cerero, L. R. Subramanian.

Tetrahedron: Asymmetry **1994**, *5*, 1373

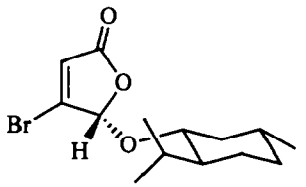


$[\alpha]_D^{20}$ = +15.0 (c 0.84, MeOH)
Source of chirality: natural (-)-(1*R*)-1,3,3-trimethyl-2-norbornanone
[(1*R*)-fenchone]
Absolute configuration: 1R,2S,4S

$C_9H_{16}O_2$
1,2-dihydroxy-7,7-dimethylnorbornane

M. Rosario Martín and Ana I. Mateo

Tetrahedron: Asymmetry **1994**, *5*, 1385



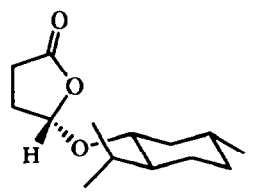
$[\alpha]_D^{20}$ = + 30.7 (c, 1.0 in $CHCl_3$)
Source of chirality: (*l*)-menthol
Absolute configuration: 5*S*,1'*R*,2'*S*,5'*R*
(assigned by chemical correlation with (5*R*)-5-(*l*-menthyloxy)-
-3,4-dihydrofuran-2-(5*H*)-one)

$C_{14}H_{24}O_3Br$

(5*S*)-4-Bromo-5-(*l*-menthyloxy)furan-2-(5*H*)-one

M. Rosario Martín and Ana I. Mateo

Tetrahedron: Asymmetry **1994**, *5*, 1385



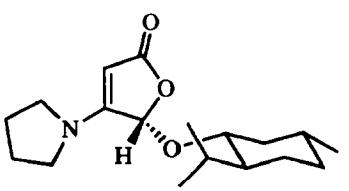
$[\alpha]_D^{20}$ = + 28.3 (c, 1.0 in $CHCl_3$)
Source of chirality: optically active precursor
Absolute configuration: 5S,1'R,2'S,5'R
(assigned by chemical correlation with (5R)-5-(*l*-menthyloxy)-
-3,4-dihydrofuran-2-(5*H*)-one)

$C_{14}H_{24}O_3$

(5S)-5-(*l*-Menthyloxy)-3,4-dihydrofuran-2-(5*H*)-one

M. Rosario Martín and Ana I. Mateo

Tetrahedron: Asymmetry **1994**, *5*, 1385



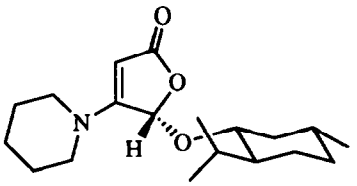
$[\alpha]_D^{20}$ = + 82.2 (c, 1.0 in $CHCl_3$)
Source of chirality: optically active precursor
Absolute configuration: 5*S*,1'*R*,2'*S*,5'*R*
(assigned by chemical correlation with (5*S*)-4-bromo-
-5-(*l*-menthyloxy)furan-2-(5*H*)-one)

$C_{18}H_{29}O_3N$

(5*S*)-5-(*l*-Menthyloxy)-4-(pyrrolidin-1-yl)furan-2-(5*H*)-one

M. Rosario Martín and Ana I. Mateo

Tetrahedron: Asymmetry **1994**, *5*, 1385



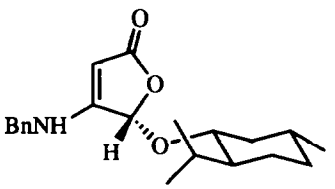
$[\alpha]_D^{20}$= - 32.0 (c, 1.0 in $CHCl_3$)
Source of chirality: optically active precursor
Absolute configuration: 5*S*,1'*R*,2'*S*,5'*R*
(assigned by chemical correlation with (5*S*)-4-bromo-
-5-(*l*-menthyloxy)furan-2-(5*H*)-one)

$C_{19}H_{31}O_3N$

(5*S*)-5-(*l*-Menthyloxy)-4-piperidinylfuran-2-(5*H*)-one

M. Rosario Martín and Ana I. Mateo

Tetrahedron: Asymmetry **1994**, *5*, 1385



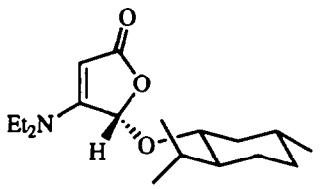
$[\alpha]_D^{20}$= + 61.7 (c, 1.0 in $CHCl_3$)
Source of chirality: optically active precursor
Absolute configuration: 5S,1'R,2'S,5'R
(assigned by chemical correlation with (5S)-4-bromo-
-5-(*l*-menthyloxy)furan-2-(5*H*)-one)

$C_{21}H_{29}O_3N$

(5S)-4-(N-Benzylamino)-5-(*l*-menthyloxy)furan-2-(5*H*)-one

M. Rosario Martín and Ana I. Mateo

Tetrahedron: Asymmetry **1994**, *5*, 1385



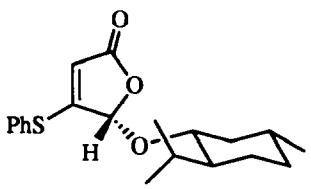
$[\alpha]_D^{20}$= + 18.4 (c, 1.0 in $CHCl_3$)
Source of chirality: optically active precursor
Absolute configuration: 5S,1'R,2'S,5'R
(assigned by chemical correlation with (5S)-4-bromo-
-5-(*l*-menthyloxy)furan-2-(5*H*)-one)

$C_{18}H_{31}O_3N$

(5S)-4-(N,N-Diethylamino)-5-(*l*-menthyloxy)furan-2-(5*H*)-one

M. Rosario Martín and Ana I. Mateo

Tetrahedron: Asymmetry **1994**, *5*, 1385



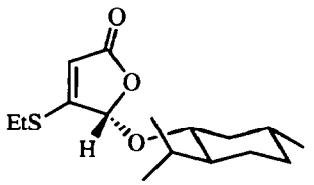
$[\alpha]_D^{20}$= + 1.3 (c, 1.0 in $CHCl_3$)
Source of chirality: optically active precursor
Absolute configuration: 5S,1'R,2'S,5'R
(assigned by chemical correlation with (5S)-4-bromo-
-5-(*l*-menthyloxy)furan-2-(5*H*)-one)

$C_{20}H_{26}O_3S$

(5S)-4-Phenylthio-5-(*l*-menthyloxy)furan-2-(5*H*)-one

M. Rosario Martín and Ana I. Mateo

Tetrahedron: Asymmetry **1994,** *5,* 1385



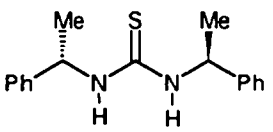
$[\alpha]_D^{20}$= + 23.5 (c, 1.0 in $CHCl_3$)
Source of chirality: optically active precursor
Absolute configuration: 5S,1'R,2'S,5'R
(assigned by chemical correlation with (5S)-4-bromo-
-5-(*l*-menthyloxy)furan-2-(5*H*)-one)

$C_{16}H_{26}O_3S$

(5S)-4-Ethylthio-5-(*l*-menthyloxy)furan-2-(5*H*)-one

Rafael Chinchilla, Carmen Nájera and Pablo Sanchez-Agulló

Tetrahedron: Asymmetry **1994,** *5,* 1393

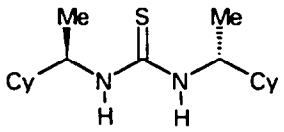


mp 202-203°C
$[\alpha]_D^{25}$ +105.4 (*c* 1.3, $CHCl_3$)
Source of chirality: (*S*)-(-)-1-Phenylethylamine (Aldrich)
Absolute configuration: *S,S*

$C_{17}H_{20}N_2S$
N,N'-Bis(1-phenylethyl)thiourea

Rafael Chinchilla, Carmen Nájera and Pablo Sanchez-Agulló

Tetrahedron: Asymmetry **1994,** *5,* 1393

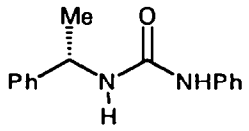


mp 182-183°C
$[\alpha]_D^{25}$ -24.8 (*c* 2, $CHCl_3$)
Source of chirality: (*R*)-(-)-1-Cyclohexylethylamine (Aldrich)
Absolute configuration: *R,R*

$C_{17}H_{32}N_2S$
N,N'-Bis(1-cyclohexylethyl)thiourea

Rafael Chinchilla, Carmen Nájera and Pablo Sanchez-Agulló

Tetrahedron: Asymmetry **1994,** *5,* 1393

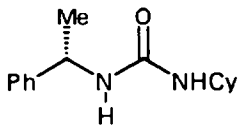


mp 152-153°C
$[\alpha]_D^{25}$ -25.2 (*c* 2.2, $CHCl_3$)
Source of chirality: (*S*)-(-)-1-Phenylethylamine (Aldrich)
Absolute configuration: *S*

$C_{15}H_{16}N_2O$
N-Phenyl-*N'*-(1-phenylethyl)urea

Rafael Chinchilla, Carmen Nájera and Pablo Sanchez-Agulló

Tetrahedron: Asymmetry **1994,** *5,* 1393

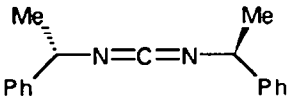


mp 144-145°C
$[\alpha]_D^{25}$ -19.1 (*c* 2.2, $CHCl_3$)
Source of chirality: (*S*)-(-)-1-Phenylethylamine (Aldrich)
Absolute configuration: *S*

$C_{15}H_{22}N_2O$
N-Cyclohexyl-*N'*-(1-phenylethyl)urea

Rafael Chinchilla, Carmen Nájera and Pablo Sanchez-Agulló

Tetrahedron: Asymmetry **1994,** *5,* 1393

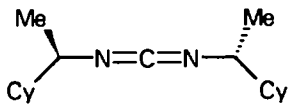


bp 190°C/0.1 Torr
$[\alpha]_D^{23}$ +1.8 (*c* 1.6, CH_2Cl_2)
Source of chirality: (*S*)-(-)-1-Phenylethylamine (Aldrich)
Absolute configuration: *S,S*

$C_{17}H_{18}N_2$
Bis(1-phenylethyl)carbodiimide

Rafael Chinchilla, Carmen Nájera and Pablo Sanchez-Agulló

Tetrahedron: Asymmetry **1994,** *5,* 1393

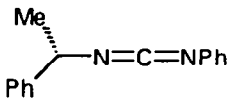


bp 165°C/0.1Torr
$[\alpha]_D^{23}$ +79.7 (*c* 1.9, CH_2Cl_2)
Source of chirality: (*R*)-(-)-1-Cyclohexylethylamine (Aldrich)
Absolute configuration: *R, R*

$C_{17}H_{30}N_2$
Bis(1-Cyclohexylethyl)carbodiimide

Rafael Chinchilla, Carmen Nájera and Pablo Sanchez-Agulló

Tetrahedron: Asymmetry **1994,** *5,* 1393

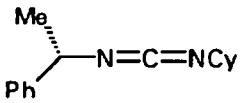


bp 185°C/0.1 Torr
$[\alpha]_D^{23}$ +28.1 (*c* 1.6, CH_2Cl_2)
Source of chirality: (*S*)-(-)-1-Phenylethylamine (Aldrich)
Absolute configuration: *S*

$C_{15}H_{14}N_2$
N-Phenyl-*N'*-(1-phenylethyl)carbodiimide

Rafael Chinchilla, Carmen Nájera and Pablo Sanchez-Agulló

Tetrahedron: Asymmetry **1994,** *5,* 1393

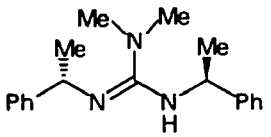


bp 180°C/0.1 Torr
$[\alpha]_D^{23}$ -8.7 (*c* 1.7, EtOH)
Source of chirality: (*S*)-(-)-1-Phenylethylamine (Aldrich)
Absolute configuration: *S*

$C_{15}H_{20}N_2$
N-Cyclohexyl-*N'*-(1-phenylethyl)carbodiimide

Rafael Chinchilla, Carmen Nájera and Pablo Sanchez-Agulló

Tetrahedron: Asymmetry **1994,** *5,* 1393



bp 160°C/0.1 Torr
$[\alpha]_D^{23}$ +52.1 (*c* 1, EtOH)
Source of chirality: (*S*)-(-)-1-Phenylethylamine (Aldrich)
Absolute configuration: *S,S*

$C_{19}H_{25}N_3$
N,N-Dimethyl-*N',N''*-bis(1-phenylethyl)guanidine

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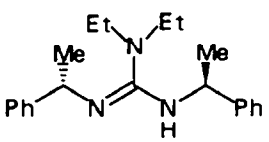
Tetrahedron: Asymmetry **1994,** *5,* 1393



bp 170°C/0.1 Torr
$[\alpha]_D^{25}$ +50.3 (*c* 1, EtOH)
Source of chirality: (*S*)-(-)-1-Phenylethylamine (Aldrich)
Absolute configuration: *S,S*

$C_{21}H_{29}N_3$
N,N-Diethyl-*N',N''*-bis(1-phenylethyl)guanidine

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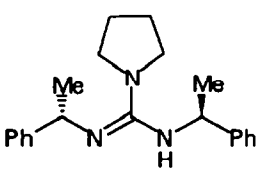
Tetrahedron: Asymmetry **1994,** *5,* 1393



bp 170°C/0.1 Torr
$[\alpha]_D^{29}$ +15.8 (*c* 1, EtOH)
Source of chirality: (*S*)-(-)-1-Phenylethylamine (Aldrich)
Absolute configuration: *S,S*

$C_{21}H_{27}N_3$
N,N'-Bis(1-phenylethyl)-*N'',N''*-tetramethyleneguanidine

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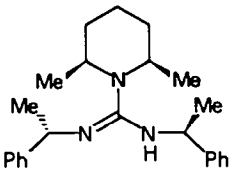
Tetrahedron: Asymmetry **1994**, *5*, 1393



bp 190°C/0.1 Torr
$[\alpha]_D^{23}$ +13.7 (*c* 1, EtOH)
Source of chirality: (*S*)-(-)-1-Phenylethylamine (Aldrich)
Absolute configuration: *S*,*S*

$C_{24}H_{33}N_3$
cis-*N*,*N*′-Bis(1-phenylethyl)-2,6-dimethylpiperidylamidine

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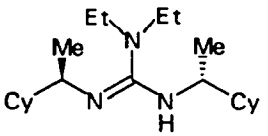
Tetrahedron: Asymmetry **1994**, *5*, 1393



bp 150°C/0.1 Torr
$[\alpha]_D^{29}$ -119.3 (*c* 1, EtOH)
Source of chirality: (*R*)-(-)-1-Cyclohexylethylamine (Aldrich)
Absolute configuration: *R*, *R*

$C_{21}H_{41}N_3$
N,*N*′-Bis(1-cyclohexylethyl)-*N*″,*N*″-diethylguanidine

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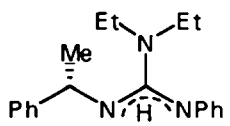
Tetrahedron: Asymmetry **1994**, *5*, 1393



bp 155°C/0.1 Torr
$[\alpha]_D^{25}$ +116 (*c* 3, EtOH)
Source of chirality: (*S*)-(-)-1-Phenylethylamine (Aldrich)
Absolute configuration: *S*

$C_{19}H_{25}N_3$
N,*N*-Diethyl-*N*′-phenyl-*N*″-(1-phenylethyl)guanidine

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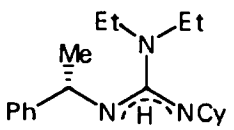
Tetrahedron: Asymmetry **1994**, *5*, 1393



bp 160°C/0.1 Torr
$[\alpha]_D^{25}$ -3.6 (*c* 1, EtOH)
Source of chirality: (*S*)-(-)-1-Phenylethylamine (Aldrich)
Absolute configuration: *S*

$C_{19}H_{31}N_3$
N-Cyclohexyl-*N*′,*N*′-diethyl-*N*″-(1-phenylethyl)guanidine

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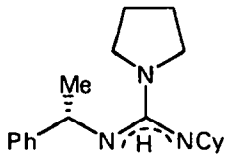
Tetrahedron: Asymmetry **1994**, *5*, 1393



bp 165°C/0.1 Torr
$[\alpha]_D^{25}$ +10.5 (*c* 1, EtOH)
Source of chirality: (*S*)-(-)-1-Phenylethylamine (Aldrich)
Absolute configuration: *S*

$C_{19}H_{29}N_3$
N,N-Tetramethylene-*N'*-phenyl-*N''*-(1-phenylethyl)guanidine