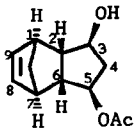
Z.Y.Liu, L.He, and H.Zheng

Tetrahedron: Asymmetry **1993**, *4*, 2277

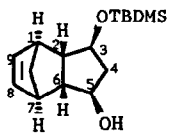


E.e >98.3% (by Chiral GC)
$[\alpha]_D$=+1.6($CHCl_3$, c=2.17)
Source of chirality: Lipase Catalyzed
Acetylation of meso-diol
Absolute configuration: 1S,2S,3S,5S,6R,7R.

$C_{12}H_{16}O_3$
(+)Endo-tricyclo
[5.2.1.$0^{2,6}$]dec-8-en-3,5-diol-5-acetate

Z.Y.Liu, L.He, and H.Zheng

Tetrahedron: Asymmetry **1993**, *4*, 2277

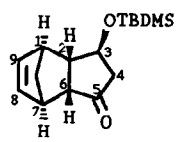


E.e >98% (by Chiral GC)
$[\alpha]_D$=+11.9($CHCl_3$, c=1.01)
Source of chirality: Lipase Catalyzed
Acetylation of (by precursor)
Absolute configuration: 1S,2S,3S,5S,6R,7R.

$C_{16}H_{28}O_2Si$
(+) Endo-tricyclo
[5.2.1.$0^{2,6}$]dec-8-en-3,5-diol-3-t-butyldimethylsilyl ether

Z.Y.Liu, L.He, and H.Zheng

Tetrahedron: Asymmetry **1993**, *4*, 2277

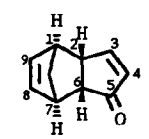


E.e >98% (by Chiral GC)
$[\alpha]_D^{20}$=-105.7($CHCl_3$, c=1.41)
Source of chirality: Lipase Catalyzed
Acetylation of (by precursor)
Absolute configuration: 1S,2S,3S,6R,7R.

$C_{16}H_{26}O_2Si$
(+) Endo-tricyclo
[5.2.1.$0^{2,6}$]dec-8-en-3-ol-5-one-3-t-butyldimethylsilyl ether

Z.Y.Liu, L.He, and H.Zheng

Tetrahedron: Asymmetry **1993**, *4*, 2277

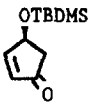


E.e >99% (by Chiral GC)
$[\alpha]_D^{20}$=-165.7($CHCl_3$, c=2.26)
Source of chirality: Lipase Catalyzed
Acetylation of (by precursor)
Absolute configuration: 1R,2R,6S,7S.

$C_{10}H_{10}O$
(+) Endo-tricyclo
[5.2.1.$0^{2,6}$]deca-4,8-dien-3-one

Z.Y.Liu, L.He, and H.Zheng

Tetrahedron: Asymmetry **1993,** *4*, 2277

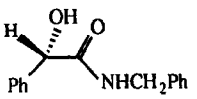


$C_{11}H_{20}OSi$
4(S)-4-t-Butyldimethylsilyloxy-cyclopentenone

E.e >98% (by Chiral GC)
$[\alpha]_D^{20}$=-49.5($CHCl_3$, c=1.18)
Source of chirality: Lipase Catalyzed Acetylation of (by precursor)

A. Roucoux, F. Agbossou, A. Mortreux, and F. Petit

Tetrahedron: Asymmetry **1993,** *4*, 2279



$C_{15}H_{15}NO_2$

(S)-(+)-N-benzyl-α-hydroxyphenylacetamide

E. e. = 79.6% (by optical rotation)

Absolute configuration : S $[\alpha]_D^{26}$ + 65.4 (*c* 1.09, $CHCl_3$)

Source of chirality : asymmetric hydrogenation in presence of rhodium-[(5S)-(+)-N-dicyclopentyl phosphino)-5-(dicyclopentylphosphinoxymethyl)-2-pyrrolidinone] catalyst

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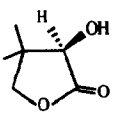
A. Roucoux, F. Agbossou, A. Mortreux, and F. Petit

Tetrahedron: Asymmetry **1993,** *4*, 2279



$C_6H_{10}O_3$

(R)-3,3-dimethyl-2-hydroxy-γ-butyrolactone

E. e. = 96% (by chiral GC analysis)

Absolute configuration : R $[\alpha]_D^{25}$ - 48.7 (*c* 2.05, H_2O)

Source of chirality : asymmetric hydrogenation in presence of rhodium-[(5S)-(+)-N-dicyclo pentylphosphino)-5-(dicyclopentylphosphinoxy methyl)-2-pyrrolidinone] catalyst

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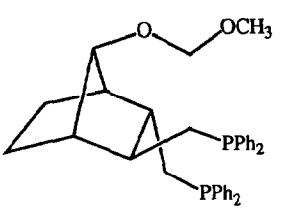
A. Yamazaki, T. Morimoto, and K. Achiwa

Tetrahedron: Asymmetry **1993,** *4*, 2287

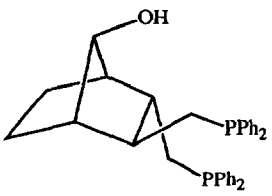


MOM-BHMP

$C_{35}H_{38}O_2P_2$
(2*S*,3*S*)-Bis[(diphenylphosphino)methyl]-7-*syn*-methoxymethyloxybicyclo[2.2.1]heptane
E.e. = 100%
$[\alpha]_D^{25}$ -3.6 (*c* 0.97, C_6H_6)
Source of chirality: Asymmetric Diels-Alder reaction using di-L-menthyl fumarate
Absolute configuration: *S, S*

A.Yamazaki, T. Morimoto, and K. Achiwa

Tetrahedron: Asymmetry **1993**, *4*, 2287

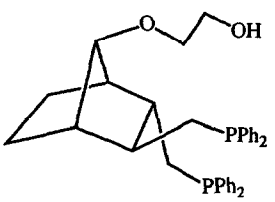


HO-BHMP

$C_{33}H_{34}OP_2$
(2*S*,3*S*)-Bis[(diphenylphosphino)methyl]-7-*syn*-hydroxybicyclo[2.2.1]heptane
E.e. = 100%
$[\alpha]_D^{20}$ -17.6 (*c* 0.98, C_6H_6)
Source of chirality: Asymmetric Diels-Alder reaction using di-L-menthyl fumarate
Absolute configuration: *S*, *S*

A.Yamazaki, T. Morimoto, and K. Achiwa

Tetrahedron: Asymmetry **1993**, *4*, 2287

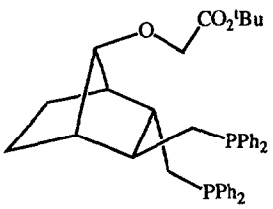


BHMP-CH_2OH

$C_{35}H_{38}O_2P_2$
(2*S*,3*S*)-Bis[(diphenylphosphino)methyl]-7-*syn*-hydroxyethyloxybicyclo[2.2.1]heptane
E.e. = 100%
$[\alpha]_D^{21}$ -4.9 (*c* 1.73, C_6H_6)
Source of chirality: Asymmetric Diels-Alder reaction using di-L-menthylfumarate
Absolute configuration: *S*, *S*

A.Yamazaki, T. Morimoto, and K. Achiwa

Tetrahedron: Asymmetry **1993**, *4*, 2287

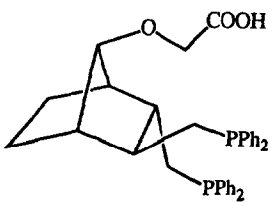


BHMP-$CO_2{}^tBu$

$C_{39}H_{44}O_3P_2$
(2*S*,3*S*)-Bis[(diphenylphosphino)methyl]-7-*syn*-*tert*-butyloxycarbonylmethyloxybicyclo[2.2.1]heptane
E.e. = 100%
$[\alpha]_D^{21}$ +3.0 (*c* 0.82, C_6H_6)
Source of chirality: Asymmetric Diels-Alder reaction using di-L-menthylfumarate
Absolute configuration: *S*, *S*

A.Yamazaki, T. Morimoto, and K. Achiwa

Tetrahedron: Asymmetry **1993**, *4*, 2287

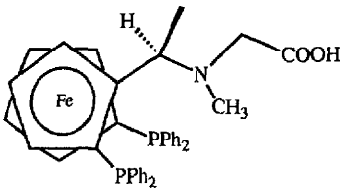


BHMP-COOH

$C_{35}H_{36}O_3P_2$
(2*S*,3*S*)-Bis[(diphenylphosphino)methyl]-7-*syn*-carboxymethyloxybicyclo[2.2.1]heptane
E.e. = 100%
$[\alpha]_D^{22}$ -2.5 (*c* 0.98, C_6H_6)
Source of chirality: Asymmetric Diels-Alder reaction using di-L-menthylfumarate
Absolute configuration: *S*, *S*

A.Yamazaki, T. Morimoto, and K. Achiwa

Tetrahedron: Asymmetry **1993**, *4*, 2287



BPPF-COOH

$C_{39}H_{37}FeNO_2P_2$

(*R*)-N-methylcarboxymethyl-1-[(*S*)-1', 2-bis(diphenylphosphino) ferrocenyl]ethylamine

E.e. = 100%

$[\alpha]_D^{21}$ -245.5 (*c* 0.6, C_6H_6)

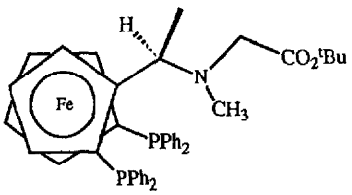
Source of chirality: synthesized from (*R*)-1-[(S)-1', 2-bis(diphenylphosphino)ferrocenyl]ethyl acetate

Absolute configuration: (*R*, *S*) for ferrocenyl phosphine moiety

mp 98-105°

A.Yamazaki, T. Morimoto, and K. Achiwa

Tetrahedron: Asymmetry **1993**, *4*, 2287



BPPF-$CO_2{}^tBu$

$C_{43}H_{45}FeNO_2P_2$

(*R*)-N-methyl*tert*-butyloxycarbonylmethyl-1-[(*S*)-1', 2-bis(diphenylphosphino ferrocenyl]ethylamine

E.e. = 100%

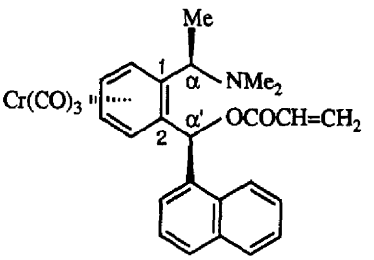
$[\alpha]_D^{21}$ -261.2 (*c* 0.7, C_6H_6)

Source of chirality: synthesized from (*R*)-1-[(S)-1', 2-bis(diphenylphosphino)ferrocenyl]ethyl acetate

Absolute configuration: (*R*, *S*) for ferrocenyl phosphine moiety

M. Uemura,Y. Hayashi, Y. Hayashi

Tetrahedron: Asymmetry **1993**, *4*, 2291



$C_{27}H_{25}O_5NCr$

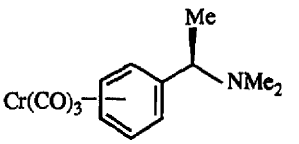
E.e. = >99%

$[\alpha]_D^{22}$ + 82.5 (*c* 0.14, chloroform)

Absolute Configuration: (1*S*,2*R*),α(*R*),α'(*S*)

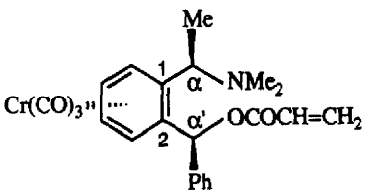
mp79 °C

Sourrce of chirality: prepared from



M. Uemura,Y. Hayashi, Y. Hayashi

Tetrahedron: Asymmetry **1993**, *4*, 2291



$C_{23}H_{23}O_5NCr$

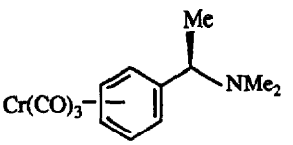
E.e. = >99%

$[\alpha]_D^{28}$ –21.9 (*c* 0.18, chloroform)

Absolute Configuration: (1*S*,2*R*),α(*R*),α'(*S*)

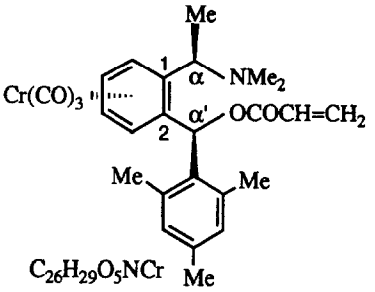
mp126 °C

Sourrce of chirality: prepared from



M. Uemura, Y. Hayashi, Y. Hayashi

Tetrahedron: Asymmetry **1993**, *4*, 2291



$C_{26}H_{29}O_5NCr$

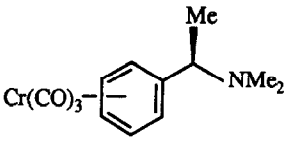
E.e. = >99%

$[\alpha]_D^{22}$ –66.4 (*c* 0.14, chloroform)

Absolute Configuration: (1*S*,2*R*),α(*R*),α'(*S*)

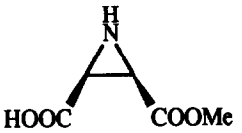
mp 144 °C

Sourrce of chirality: prepared from



Peter Renold and Christoph Tamm

Tetrahedron: Asymmetry **1993**, *4*, 2295



E.e. = 92% [*Barton* decarb.; GC on chiral column]

Source of chirality: enzymatic hydrolysis

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

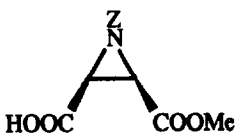
$[\alpha]_D^{20}$ = -12.1 (c = 1.15, MeOH)

$C_5H_7NO_4$

3-Methoxycarbonyl-aziridine-2-carboxylic acid

Peter Renold and Christoph Tamm

Tetrahedron: Asymmetry **1993**, *4*, 2295



E.e. = 38% [*Barton* decarb.; GC on chiral column]

Source of chirality: enzymatic hydrolysis

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

$C_{12}H_{13}NO_6$

1-Benzyloxycarbonyl-3-methoxycarbonyl-aziridine-2-carboxylic acid

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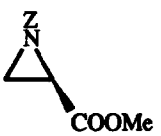
Peter Renold and Christoph Tamm

Tetrahedron: Asymmetry **1993**, *4*, 2295



E.e. = 92% [GC on chiral column]

Source of chirality: enzymatic hydrolysis

Absolute configuration: 2*R*

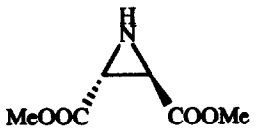
$[\alpha]_D^{23}$ = +34.0 (c = 0.36, MeOH)

$C_{12}H_{12}NO_4$

Methyl 1-Benzyloxycarbonyl-aziridine-2-carboxylate

Peter Renold and Christoph Tamm

Tetrahedron: Asymmetry **1993**, *4*, 2295



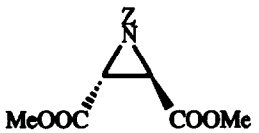
E.e. = 27% [GC on chiral column]
Source of chirality: enzymatic hydrolysis
Absolute configuration: 2*R*, 3*R*

$C_6H_9NO_4$

Dimethyl aziridine-2,3-dicarboxylate

Peter Renold and Christoph Tamm

Tetrahedron: Asymmetry **1993**, *4*, 2295



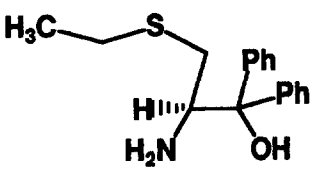
E.e. = 28% [GC on chiral column]
Source of chirality: enzymatic hydrolysis
Absolute configuration: 2*R*, 3*R*

$C_{12}H_{13}NO_4$

Dimethyl 1-benzyloxycarbonyl-aziridine-2,3-dicarboxylate

Th. Mehler, J. Martens*

Tetrahedron: Asymmetry **1993**, *4*, 2299



E.e. under investigation
$[\alpha]_D^{20} = -166.3$ ($c = 0.44$, $CHCl_3$)
Source of chirality: (*R*)-cysteine

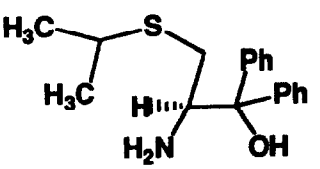
Absolute configuration R

$C_{17}H_{21}NOS$

(*R*)-2-amino-1,1-diphenyl-3-(ethylmercapto)-1-propanol

Th. Mehler, J. Martens*

Tetrahedron: Asymmetry **1993**, *4*, 2299



E.e. under investigation
$[\alpha]_D^{20} = -160.3$ ($c = 0.40$, $CHCl_3$)
Source of chirality: (*R*)-cysteine

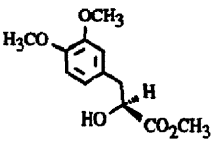
Absolute configuration R

$C_{18}H_{23}NOS$

(*R*)-2-amino-1,1-diphenyl-3-(isopropylmercapto)-1-propanol

B. Wünsch and M. Zott

Tetrahedron: Asymmetry **1993**, *4*, 2307



$[\alpha]_D^{21} = +5.7$ (c = 0.99, CH_3OH)

Source of chirality: (S)-(-)-Tyrosine

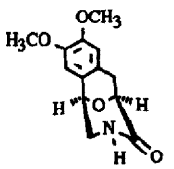
Absolute configuration: S

$C_{12}H_{16}O_5$

Methyl (S)-(+)-3-(3,4-dimethoxyphenyl)-2-hydroxypropionate

B. Wünsch and M. Zott

Tetrahedron: Asymmetry **1993**, *4*, 2307



$[\alpha]_{578}^{21} = -103$ (c = 1.205, DMSO)

Source of chirality: (S)-(-)-Tyrosine

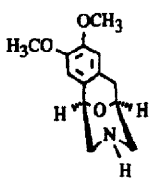
Absolute configuration: 1R,5S

$C_{13}H_{15}NO_4$

(1R,5S)-(-)-1,5-Epoxy-2,3,5,6-tetrahydro-8,9-dimethoxy-3-benzazocin-4(1H)-one

B. Wünsch and M. Zott

Tetrahedron: Asymmetry **1993**, *4*, 2307



$[\alpha]_{578}^{21} = -45.6$ (c = 0.800, $CHCl_3$)

Source of chirality: (S)-(-)-Tyrosine

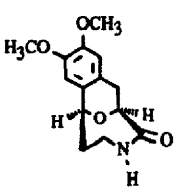
Absolute configuration: 1R,5S

$C_{13}H_{17}NO_3$

(1R,5S)-(-)-1,5-Epoxy-1,2,3,4,5,6-hexahydro-8,9-dimethoxy-3-benzazocine

B. Wünsch and M. Zott

Tetrahedron: Asymmetry **1993**, *4*, 2307



$[\alpha]_{578}^{21} = -327$ (c = 0.74, $CHCl_3$)

Source of chirality: (S)-(-)-Tyrosine

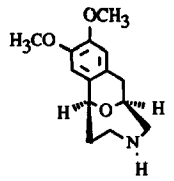
Absolute configuration: 2S,7S

$C_{14}H_{17}NO_4$

(2S,7S)-(-)-2,7-Epoxy-1,2,4,5,6,7-hexahydro-9,10-dimethoxy-4-benzazonin-3-one

B. Wünsch and M. Zott

Tetrahedron: Asymmetry **1993**, *4*, 2307



$[\alpha]_{578}^{21}$ = -212 (c = 0.235, $CHCl_3$)

Source of chirality: (S)-(-)-Tyrosine

Absolute configuration: 1S,6S

$C_{14}H_{19}NO_3$

(1S,6S)-(-)-1,6-Epoxy-2,3,4,5,6,7-hexahydro-9,10-dimethoxy-1H-4-benzazonine

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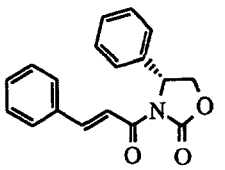
Guigen Li, Dinesh Patel and Victor J. Hruby

Tetrahedron: Asymmetry **1993**, *4*, 2315



E.e = 100% [by nmr]

$[\alpha]_D^{25}$ = -6.6 (c=1.5 $CHCl_3$)

Source of chirality: assigned from authentic auxilary

Absolute configuration: 4R

$C_{18}H_{15}NO_3$

3(4R)-{(2E)-3-phenyl-1-oxoprop-2-eneyl}-4-phenyl-2-oxazolidinone

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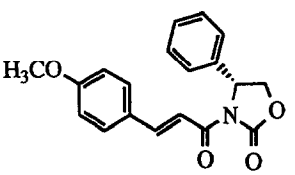
Guigen Li, Dinesh Patel and Victor J. Hruby

Tetrahedron: Asymmetry **1993**, *4*, 2315



E.e = 100% [by nmr]

$[\alpha]_D^{25}$ = +43.4 (c=1.52 $CHCl_3$)

Source of chirality: assigned from authentic auxilary

Absolute configuration: 4R

$C_{19}H_{17}NO_4$

3(4R)-{(2E)-3-(4'-methoxyphenyl)-1-oxoprop-2-eneyl}-4-phenyl-2-oxazolidinone

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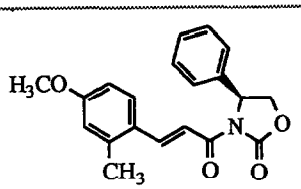
Guigen Li, Dinesh Patel and Victor J. Hruby

Tetrahedron: Asymmetry **1993**, *4*, 2315



E.e = 100% [by nmr]

$[\alpha]_D^{25}$ = -17.2 (c=2.0 $CHCl_3$)

Source of chirality: assigned from authentic auxilary

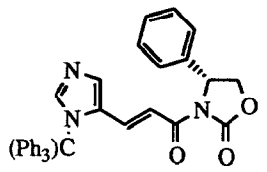
Absolute configuration: 4S

$C_{20}H_{19}NO_4$

3(4S)-{(2E)-3-(2'-methyl-4'-methoxyphenyl)-1-oxoprop-2-eneyl}-4-phenyl-2-oxazolidinone

Guigen Li, Dinesh Patel and Victor J. Hruby

Tetrahedron: Asymmetry **1993**, *4*, 2315



$C_{34}H_{27}N_3O_3$

E.e = 100% [by nmr]
$[\alpha]_D^{25}$=-23.2 (c=1.10 $CHCl_3$)

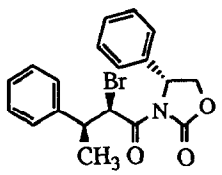
Source of chirality: assigned from authentic auxilary

Absolute configuration: 4R

3(4R)-{(2E)-3-[4'-(1'-triphenylmethyl)-imidazole]-1-oxoprop-2-eneyl}-4-phenyl-2-oxazolidinone

Guigen Li, Dinesh Patel and Victor J. Hruby

Tetrahedron: Asymmetry **1993**, *4*, 2315



$C_{19}H_{18}NO_3Br$

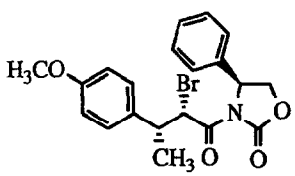
E.e = 100% [by nmr]
$[\alpha]_D^{25}$= -68.0 (c=2.4 $CHCl_3$)

Source of chirality: assigned from conversion to final substrate and comparison with an authentic sample
Absolute configuration: 2R, 3S; 4R

3(4R)-{(2R,3S)-3-phenyl-2-bromo-1-oxobutyl}-4-phenyl-2-oxazolidinone

Guigen Li, Dinesh Patel and Victor J. Hruby

Tetrahedron: Asymmetry **1993**, *4*, 2315



$C_{20}H_{20}NO_4Br$

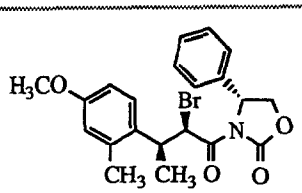
E.e = 100% [by nmr]
$[\alpha]_D^{25}$= +149.0 (c=1.5 $CHCl_3$)

Source of chirality: assigned from conversion to final substrate and comparison with an authentic sample
Absolute configuration: 2S, 3R; 4S

3(4S)-{(2S,3R)-3-(4'-methoxyphenyl)-2-bromo-1-oxobutyl}-4-phenyl-2-oxazolidinone

Guigen Li, Dinesh Patel and Victor J. Hruby

Tetrahedron: Asymmetry **1993**, *4*, 2315



$C_{21}H_{22}NO_4Br$

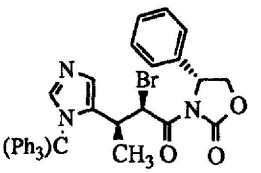
E.e = 100% [by nmr]
$[\alpha]_D^{25}$= -120.0 (c=2.4 $CHCl_3$)

Source of chirality: assigned from conversion to final substrate and comparison with an authentic sample
Absolute configuration: 2R, 3S; 4R

3(4R)-{(2R,3S)-3-(2'-methyl-4'-methoxyphenyl-2-bromo-1-oxobutyl}-4-phenyl-2-oxazolidinone

Guigen Li, Dinesh Patel and Victor J. Hruby

Tetrahedron: Asymmetry **1993**, *4*, 2315



$C_{35}H_{30}N_3O_3Br$

E.e = 100% [by nmr]
$[\alpha]_D^{25}$ = -67.5 (c=1.5 $CHCl_3$)

Source of chirality: asymmeteric synthesis

Absolute configuration: 2R, 3S; 4R

3(4R)-{(2R,3S)-3-[4'-(1'-triphenylmethyl)-imidazole]-2-bromo-1-oxobutyl}-4-phenyl-2-oxazolidinone

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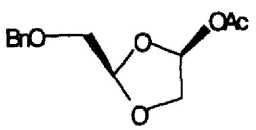
C. A. Evans, D. M. Dixit, M. A. Siddiqui, H. Jin, H. L. A. Tse, A. Cimpoia, K. Bednarski, T. Breining and T. S. Mansour

Tetrahedron: Asymmetry **1993**, *4*, 2319



$C_{13}H_{16}O_5$
2-Benzyloxymethyl-4-acetoxy-1,3-dioxolane

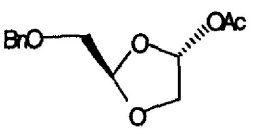
E.e. = > 99% by conversion to dioxolane nucleoside and then chiral HPLC
$[\alpha]_D^{22}$ = -58.1 (c 1.77,$CHCl_3$)

Source of chirality: D-mannitol or L-ascorbic acid

Absolute configuration 2R,4S
(assigned by rel. X-ray of synthetic intermediate)

C. A. Evans, D. M. Dixit, M. A. Siddiqui, H. Jin, H. L. A. Tse, A. Cimpoia, K. Bednarski, T. Breining and T. S. Mansour

Tetrahedron: Asymmetry **1993**, *4*, 2319



$C_{13}H_{16}O_5$
2-Benzyloxymethyl-4-acetoxy-1,3-dioxolane

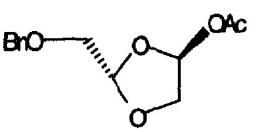
E.e. = > 99% by conversion to dioxolane nucleoside and then chiral HPLC
$[\alpha]_D^{22}$ = +67.4 (c 1.1,$CHCl_3$)

Source of chirality: D-mannitol or L-ascorbic acid

Absolute configuration 2R,4R
(assigned by rel. X-ray of synthetic intermediate)

C. A. Evans, D. M. Dixit, M. A. Siddiqui, H. Jin, H. L. A. Tse, A. Cimpoia, K. Bednarski, T. Breining and T. S. Mansour

Tetrahedron: Asymmetry **1993**, *4*, 2319



$C_{13}H_{16}O_5$
2-Benzyloxymethyl-4-acetoxy-1,3-dioxolane

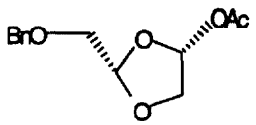
E.e. = > 99% by conversion to dioxolane nucleoside and then chiral HPLC
$[\alpha]_D^{22}$ = -67.4 (c 1.00,$CHCl_3$)

Source of chirality: D-mannitol or L-ascorbic acid

Absolute configuration 2S,4S
(assigned by rel. X-ray of synthetic intermediate)

C. A. Evans, D. M. Dixit, M. A. Siddiqui, H. Jin, H. L. A. Tse, A. Cimpoia, K. Bednarski, T. Breining and T. S. Mansour

Tetrahedron: Asymmetry **1993**, *4*, 2319



$C_{13}H_{16}O_5$
2-Benzyloxymethyl-4-acetoxy-1,3-dioxolane

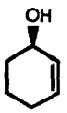
E.e. = > 99% by conversion to dioxolane nucleoside and then chiral HPLC
$[\alpha]_D^{22}$ = +58.8 (c 1.66,$CHCl_3$)

Source of chirality: D-mannitol or L-ascorbic acid

Absolute configuration 2S,4R
(assigned by rel. X-ray of synthetic intermediate)

T. Fukazawa and T. Hashimoto

Tetrahedron: Asymmetry **1993**, *4*, 2323



$C_6H_{10}O$
2-Cyclohexen-1-ol

E.e.= >99% (determined by HPLC)

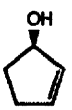
$[\alpha]_D$= +130.6 (c 1.21, $CHCl_3$)

Source of chirality: Lipase (Pseudomonas fluorecens)

Absolute configuration: R

T. Fukazawa and T. Hashimoto

Tetrahedron: Asymmetry **1993**, *4*, 2323



C_5H_8O
2-Cyclopenten-1-ol

E.e.= >99% (determined by HPLC)

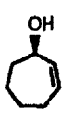
$[\alpha]_D$= +116.6 (c 0.64, $CHCl_3$)

Source of chirality: Lipase (Pseudomonas fluorecens)

Absolute configuration: R

T. Fukazawa and T. Hashimoto

Tetrahedron: Asymmetry **1993**, *4*, 2323



$C_7H_{12}O$
2-Cyclohepten-1-ol

E.e.= >99% (determined by HPLC)

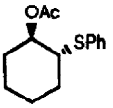
$[\alpha]_D$= +26.1 (c 1.27, $CHCl_3$)

Source of chirality: Lipase (Pseudomonas fluorecens)

Absolute configuration: R

T. Fukazawa and T. Hashimoto

Tetrahedron: Asymmetry **1993**, *4*, 2323



$C_{14}H_{18}O_2S$

trans-2-Phenylthiocyclohexyl acetate

E.e.= >99% (determined by HPLC)

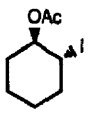
$[\alpha]_D$= +6.88 (c 1.25, $CHCl_3$)

Source of chirarity: Lipase (Pseudomounas fluorecens)

Absolute configuration: 1R, 2R

T. Fukazawa and T. Hashimoto

Tetrahedron: Asymmetry **1993**, *4*, 2323



$C_8H_{13}O_2I$

trans-2-Iodocyclohexyl acetate

E.e.= 97% (determined by HPLC)

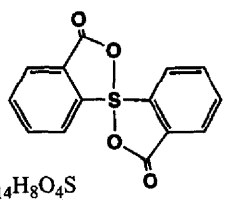
$[\alpha]_D$= -47.1 (c 2.15, $CHCl_3$)

Source of chirarity: Lipase (Pseudomounas fluorecens)

Absolute configuration: 1R, 2R

Stig Allenmark and Sofia Claeson

Tetrahedron: Asymmetry **1993**, *4*, 2329



$C_{14}H_8O_4S$

1,1'-spirobi[3H-2,1-benzoxathiol]-3,3'-dione

E.e. >99% (by chiral liquid chromatography)

$[\alpha]_{436}$ = 91.7 (c. 0.05, acetonitrile)

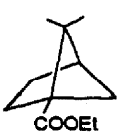
CD: $[\theta]_{237} = 3.13 \times 10^5$ deg M^{-1} cm^{-1} (acetonitrile)

Source of chirality: Resolution of racemate by chiral liquid chromatography

Absolute configurations: unknown

A. García Martínez, E. Teso Vilar, J. Osío Barcina, M. E. Rodriguez Herrero, S. de la Moya Cerero, M. Hanack, L. R. Subramanian.

Tetrahedron: Asymmetry **1993**, *4*, 2333



$[\alpha]_D^{20}$= +2.3 (c 1.9, MeOH)

Source of chirality: natural (+)-(1R)-1,7,7-trimethyl-2-norbornanone [(1R)-Camphor]

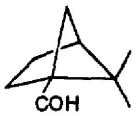
Absolute configuration: 1R,4R

$C_{11}H_{18}O_2$

5,5-dimethylbicyclo[2.1.1]hexane-1-carboxylic acid ethyl ester

A. García Martínez, E. Teso Vilar, J. Osío Barcina, M. E. Rodriguez Herrero, S. de la Moya Cerero, M. Hanack, L. R. Subramanian.

Tetrahedron: Asymmetry **1993**, *4*, 2333

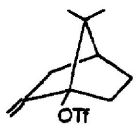


$[\alpha]_D^{20}$= +6.8 (c 5.1, benzene)
Source of chirality: natural (+)-(1R)-1,3,3-trimethyl-2-norbornanone [(1R)-Fenchone]
Absolute configuration: 1S,4S

$C_9H_{14}O$
5,5-dimethylbicyclo[2.1.1]hexane-1-carbaldehyde

A. García Martínez, E. Teso Vilar, J. Osío Barcina, M. E. Rodriguez Herrero, S. de la Moya Cerero, M. Hanack, L. R. Subramanian.

Tetrahedron: Asymmetry **1993**, *4*, 2333

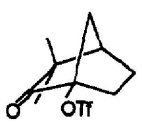


$[\alpha]_D^{20}$= +16.5 (c 5.3, MeOH)
Source of chirality: natural (+)-(1R)-1,3,3-trimethyl-2-norbornanone [(1R)-Fenchone]
Absolute configuration: 1S,4S

$C_{11}H_{15}F_3O_3S$
7,7-dimethyl-2-methyliden-1-norbornyl triflate

A. García Martínez, E. Teso Vilar, J. Osío Barcina, M. E. Rodriguez Herrero, S. de la Moya Cerero, M. Hanack, L. R. Subramanian.

Tetrahedron: Asymmetry **1993**, *4*, 2333

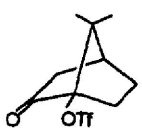


$[\alpha]_D^{20}$= -12.3 (c 2.1, MeOH)
Source of chirality: natural (+)-(1R)-1,7,7-trimethyl-2-norbornanone [(1R)-Camphor]
Absolute configuration: 1R,4R

$C_{10}H_{13}F_3O_4S$
3,3-dimethyl-2-oxo-1-norbornyl triflate

A. García Martínez, E. Teso Vilar, J. Osío Barcina, M. E. Rodriguez Herrero, S. de la Moya Cerero, M. Hanack, L. R. Subramanian.

Tetrahedron: Asymmetry **1993**, *4*, 2233

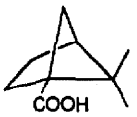


$[\alpha]_D^{20}$= +21.0 (c 1.0, MeOH)
Source of chirality: natural (+)-(1R)-1,3,3-trimethyl-2-norbornanone [(1R)-Fenchone]
Absolute configuration: 1R,4S

$C_{10}H_{13}F_3O_4S$
7,7-dimethyl-2-oxo-1-norbornyl triflate

A. García Martínez, E. Teso Vilar, J. Osío Barcina, M. E. Rodriguez Herrero, S. de la Moya Cerero, M. Hanack, L. R. Subramanian.

Tetrahedron: Asymmetry **1993,** *4*, 2333

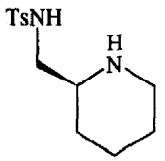


$[\alpha]_D^{20}$= +1.4 (c 1.1, MeOH); -10.4 (c 4.9, benzene)
Source of chirality: natural (+)-(1R)-1,3,3-trimethyl-2-norbornanone [(1R)-Fenchone]
Absolute configuration: 1S,4S

$C_9H_{14}O_2$
5,5-dimethylbicyclo[2.1.1]hexane-1-carboxylic acid

O. Froelich, M. Bonin, J.-C. Quirion, H.-P. Husson

Tetrahedron: Asymmetry **1993,** *4*, 2335

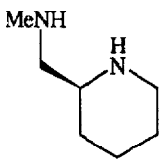


N-tosyl (2S)-aminomethyl-piperidine

E.e.>98% (from ee of the precursor R (-) phenylglycinol
$[\alpha]_D^{20}$=+26 (c 1.0, MeOH)
Absolute configuration 2S

O. Froelich, M. Bonin, J.-C. Quirion, H.-P. Husson

Tetrahedron: Asymmetry **1993,** *4*, 2335

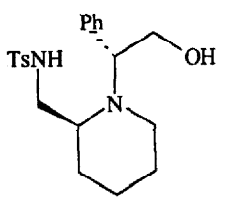


N-methyl (2S)-aminomethyl-piperidine

E.e.>98% (from ee of the precursor R (-) phenylglycinol
$[\alpha]_D^{20}$=-12 (c 0.8, MeOH)
Absolute configuration 2S

O. Froelich, M. Bonin, J.-C. Quirion, H.-P. Husson

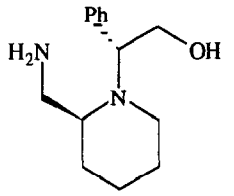
Tetrahedron: Asymmetry **1993,** *4*, 2335



E.e.>98% (from ee of the precursor R (-) phenylglycinol
$[\alpha]_D^{20}$=+12 (c 1.0, MeOH)
Absolute configuration 2S, 9R

O. Froelich, M. Bonin, J.-C. Quirion, H.-P. Husson

Tetrahedron: Asymmetry **1993,** *4*, 2335



E.e.>98% (from ee of the precursor R (-) phenylglycinol

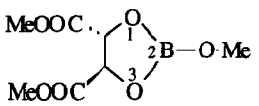
$[\alpha]_D^{20}$=-70 (c 0.7, $CHCl_3$)

Obtained by reduction of (-) 2-cyano-6-phenyl oxazolopiperidine

Absolute configuration 2S, 9R

E. Manoury, H. Ait Haddou Mouloud, G.G.A.Balavoine*

Tetrahedron: Asymmetry **1993,** *4*, 2339



$C_7H_9BO_7$

2-methoxy-4,5 dimethoxycarbonyl, 1,3,2 dioxaborolane

E.e = > 99%

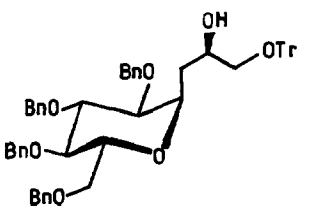
$[\alpha]_{23}^{D}$ = - 34 (c=3.7, CH_2Cl_2)

Source of chirality: tartaric acid

Absolute configuration : R,R

M K Gurjar, A S Mainkar and M Syamala

Tetrahedron: Asymmetry **1993,** *4*, 2343



(2R)-3-C-(2,3,4,6-tetra-O-benzyl- α -D-glucopyranosyl)-1-O-triphenylmethyl-propan-1,2-diol.

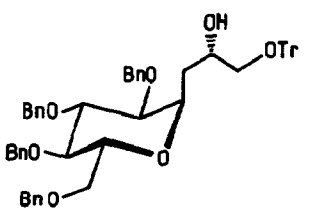
$[\alpha]_D$ +21 (c 1.0, $CHCl_3$)

Source of chirality : Sharpless asymmetric dihydroxylation and separation of diastereomers.

Absolute configuration : 2R.

M K Gurjar, A S Mainkar and M Syamala

Tetrahedron: Asymmetry **1993,** *4*, 2343



(2S)-3-C-(2,3,4,6-tetra-O-benzyl- α -D-glucopyranosyl)-1-O-triphenylmethyl-propane-1,2-diol

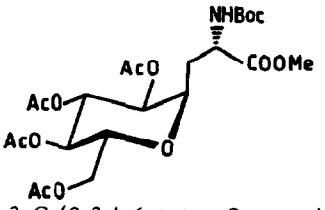
$[\alpha]_D$ = + 26 (c 1.0, $CHCl_3$)

Source of chirality : Sharpless asymmetric dihydroxylation and separation of diastereomers.

Absolute configuration : 2S

M K Gurjar, A S Mainkar and M Syamala

Tetrahedron: Asymmetry **1993,** *4*, 2343



(2S)-methyl-3-C-(2,3,4,6-tetra-O-acetyl-α-D- glucopyranosyl)-N-butyl-oxycarbonyl alaninate

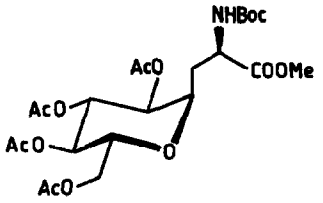
$[\alpha]_D$ = +42 (c 1.0, $CHCl_3$)

Source of chirality : Sharpless asymmetric dihydroxylation and separation of diastereomers.

Absolute configuration : 2S

M K Gurjar, A S Mainkar and M Syamala

Tetrahedron: Asymmetry **1993,** *4*, 2343



(2R)-methyl-3-C-(2,3,4,6-tetra-O-acetyl-α-D- glucopyranosyl)-N-butyl-oxycarbonyl alaninate

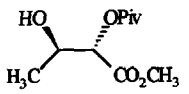
$[\alpha]_D$ = + 36 (c 1.0, $CHCl_3$)

Source of chirality : Sharpless asymmetric dihydroxylation and separation of diastereomers.

Absolute configuration : 2R

A. Kirschning, M. Kreimeyer, H.-P. Blanke

Tetrahedron: Asymmetry **1993,** *4*, 2347



$C_{10}H_{18}O_5$

Methyl 3-hydroxy-2-pivaloyloxy butanoic ester

E.e = 100.0 %

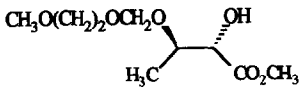
$[a]_D^{22}$= -29 (c 1.07; $CHCl_3$)

Source of chirality: natural

Absolute configuration 2S,3R

A. Kirschning, M. Kreimeyer, H.-P. Blanke

Tetrahedron: Asymmetry **1993,** *4*, 2347



$C_9H_{18}O_6$

Methyl 2-hydroxy-3-methoxyethoxymethoxy butanoic ester

E.e = 100.0 %

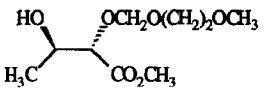
$[\alpha]_D^{22}$= -22.5 (c 1.27; $CHCl_3$)

Source of chirality: natural

absolute configuration 2S,3R

A. Kirschning, M. Kreimeyer, H.-P. Blanke

Tetrahedron: Asymmetry **1993**, *4*, 2347



$C_9H_{18}O_6$

Methyl 3-hydroxy-2-methoxyethoxymethoxy butanoic ester

E.e = 100.0 %

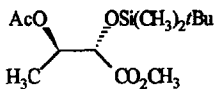
$[\alpha]_D^{22}$= -69.3 (c 1.18; $CHCl_3$)

Source of chirality: natural

Absolute configuration 2S,3R

A. Kirschning, M. Kreimeyer, H.-P. Blanke

Tetrahedron: Asymmetry **1993**, *4*, 2347



$C_{13}H_{26}O_5Si$

Methyl 3-acetoxy-2-dimethyl-*tert* butylsiloxy butanoic ester

E.e = 100.0 %

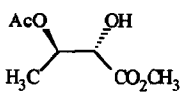
$[\alpha]_D^{22}$= -1.0 (c 1.27; $CHCl_3$)

Source of chirality: natural

Absolute configuration 2S,3R

A. Kirschning, M. Kreimeyer, H.-P. Blanke

Tetrahedron: Asymmetry **1993**, *4*, 2347



$C_7H_{12}O_5$

Methyl 3-acetoxy-2-hydroxy butanoic ester

E.e = 100.0 %

$[\alpha]_D^{22}$= +54 (c 1.2; $CHCl_3$)

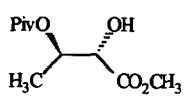
mp= 41°C

Source of chirality: natural

Absolute configuration 2S,3R

A. Kirschning, M. Kreimeyer, H.-P. Blanke

Tetrahedron: Asymmetry **1993**, *4*, 2347



$C_{10}H_{18}O_5$

Methyl 2-hydroxy-3-pivaloyloxy butanoic ester

E.e = 100.0 %

$[\alpha]_D^{22}$= +42 (c 0.99; $CHCl_3$)

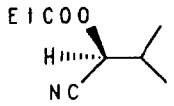
mp= 36.5°C-38.5°C

Source of chirality: natural

Absolute configuration 2S,3R

L. T. Kanerva E. Kiljunen and T. T. Huuhtanen

Tetrahedron: Asymmetry **1993**, *4*, 2355

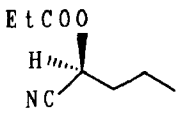


E.e. = 99 % (by chiral GLC)
$[\alpha]_D^{25}$ = -77 (c 8.7, benzene)
Source of chirality: Lipase CCL
Absolute configuration: *S*

$C_8H_{13}NO_2$
(*S*)-1-cyano-2-methylpropyl propionate

L. T. Kanerva E. Kiljunen and T. T. Huuhtanen

Tetrahedron: Asymmetry **1993**, *4*, 2355

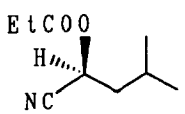


E.e. = 99 % (by chiral GLC)
$[\alpha]_D^{25}$ = -73 (c 3.75, benzene)
Source of chirality: Lipase CCL
Absolute configuration: *S*

$C_8H_{13}NO_2$
(*S*)-1-cyanobutyl propionate

L. T. Kanerva E. Kiljunen and T. T. Huuhtanen

Tetrahedron: Asymmetry **1993**, *4*, 2355

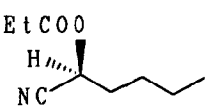


E.e. = 94 % (by chiral GLC)
$[\alpha]_D^{25}$ = -56 (c 5.50, benzene)
Source of chirality: Lipase CCL
Absolute configuration: *S*

$C_9H_{15}NO_2$
(*S*)-1-cyano-3-methylbutyl propionate

L. T. Kanerva E. Kiljunen and T. T. Huuhtanen

Tetrahedron: Asymmetry **1993**, *4*, 2355

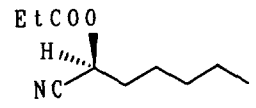


E.e. = 98 % (by chiral GLC)
Source of chirality: Lipase CCL
Absolute configuration: *S*

$C_9H_{15}NO_2$
(*S*)-1-cyanopentyl propionate

L. T. Kanerva E. Kiljunen and T. T. Huuhtanen

Tetrahedron: Asymmetry **1993**, *4*, 2355

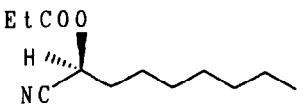


E.e. = 97 % (by chiral GLC)
$[\alpha]_D^{25}$ = -60 (c 3.08, benzene)
Source of chirality: Lipase CCL
Absolute configuration: *S*

$C_{10}H_{17}NO_2$
(*S*)-1-cyanohexyl propionate

L. T. Kanerva E. Kiljunen and T. T. Huuhtanen

Tetrahedron: Asymmetry **1993**, *4*, 2355

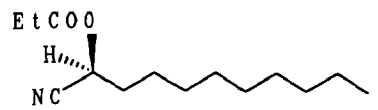


E.e. = 97 % (by chiral GLC)
$[\alpha]_D^{25}$ = -51 (c 4.66, benzene)
Source of chirality: Lipase CCL
Absolute configuration: *S*

$C_{12}H_{21}NO_2$
(*S*)-1-cyanooctyl propionate

L. T. Kanerva E. Kiljunen and T. T. Huuhtanen

Tetrahedron: Asymmetry **1993**, *4*, 2355

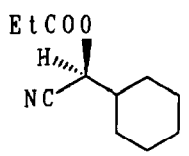


E.e. = 93 % (by chiral GLC)
$[\alpha]_D^{25}$ = -40 (c 3.60, benzene)
Source of chirality: Lipase CCL
Absolute configuration: *S*

$C_{14}H_{25}NO_2$
(*S*)-1-cyanodecyl propionate

L. T. Kanerva E. Kiljunen and T. T. Huuhtanen

Tetrahedron: Asymmetry **1993**, *4*, 2355

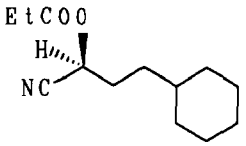


E.e. = 96 % (by chiral GLC)
$[\alpha]_D^{25}$ = -46 (c 2.91, benzene)
Source of chirality: Lipase CCL
Absolute configuration: *S*

$C_{11}H_{17}NO_2$
(*S*)-1-cyanocyclohexyl propionate

L. T. Kanerva E. Kiljunen and T. T. Huuhtanen

Tetrahedron: Asymmetry **1993,** *4*, 2355

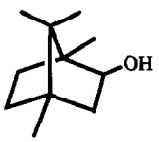


E.e. = 55 % (by chiral GLC)
Source of chirality: Lipase CCL
Absolute configuration: *S*

$C_{13}H_{21}NO_2$
(*S*)-1-cyano-3-cyclohexylpropyl propionate

T.Money and M.H.Palme

Tetrahedron: Asymmetry **1993,** *4*, 2363

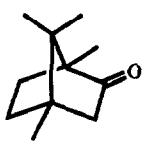


E.e. ≥ 99% (by capillary GC using chirasil-val III)
$[\alpha]_D$ = + 32.9 (c 8.1, EtOH)
Source of chirality : (+)-camphor
Absolute configuration : 1S, 2S, 4S

$C_{11}H_{20}O$
(+)-(1S, 2S, 4S)-4-methylbornan-2-ol

T.Money and M.H.Palme

Tetrahedron: Asymmetry **1993,** *4*, 2363

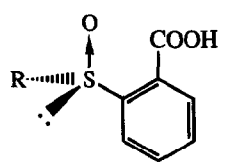


E.e. ≥ 99% (by ^{1}H-nmr in presence of Eu(hfc)$_3$)
$[\alpha]_D$ = - 26.7 (c 3.4, EtOH)
Source of chirality : (+)-camphor
Absolute configuration : 1S, 4S

$C_{11}H_{18}O$
(-)-(1S, 4S)-4-methylbornan-2-one

Stig G. Allenmark* and A. Christina Andersson

Tetrahedron: Asymmetry **1993,** *4*, 2371



R = *n*-C_4, *n*-C_8, *n*-C_{12}, *n*-C_{16}

(-)-(S)-2-(alkylsulfinyl)benzoic acid

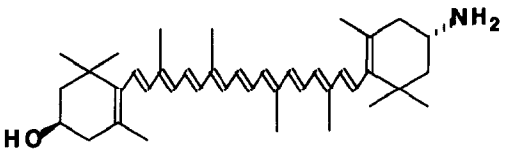
e.e. ≥ 95.5 % (by chiral liquid chromatography)

Source of chirality: Enzymatic ester hydrolysis

Absolute configuration: (-)-(S) (deduced from the elution order of enantiomers (R = C_1) of known absolute configuration by correlation)

H.-R. Sliwka and S. Liaaen-Jensen

Tetrahedron: Asymmetry **1993**, *4*, 2377



$C_{40}H_{57}ON$

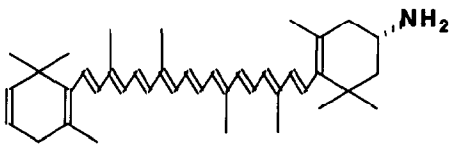
(3*R*,3′*S*)-3′-Amino-β,β-caroten-3-ol

Source of chirality: natural and synthetic, S_N2 inversion

Absolute configuration: 3*R*, 3′*S* (assigned by CD)

H.-R. Sliwka and S. Liaaen-Jensen

Tetrahedron: Asymmetry **1993**, *4*, 2377



$C_{40}H_{55}N$

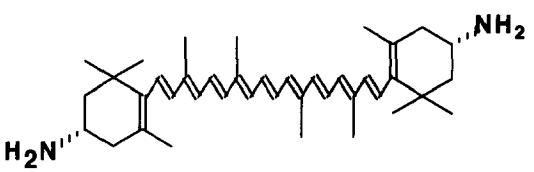
(3*S*)-2′,3′-Didehydro-β,β-caroten-3-amine

Source of chirality: natural and synthetic, S_N2 inversion

Absolute configuration: 3*S* (assigned by CD)

H.-R. Sliwka and S. Liaaen-Jensen

Tetrahedron: Asymmetry **1993**, *4*, 2377



$C_{40}H_{58}N_2$

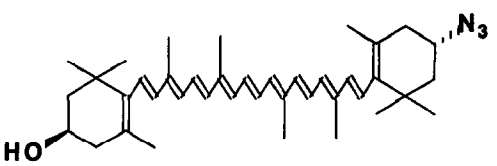
(3*S*,3′*S*)-β,β-carotene-3,3′-diamine

Source of chirality: natural and synthetic, S_N2 inversion

Absolute configuration: 3*S*, 3′*S* (assigned by CD)

H.-R. Sliwka and S. Liaaen-Jensen

Tetrahedron: Asymmetry **1993**, *4*, 2377



$C_{40}H_{55}ON_3$

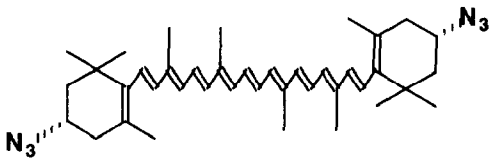
(3*R*,3′*S*)-3′-Azido-β,β-caroten-3-ol

Source of chirality: natural and synthetic, S_N2 inversion

Absolute configuration: 3*R*,3′*S* (assigned by CD of corresponding amine)

H.-R. Sliwka and S. Liaaen-Jensen

Tetrahedron: Asymmetry **1993,** *4*, 2377



$C_{40}H_{54}N_6$

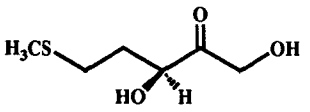
(3*S*,3′*S*)-3,3′-Diazido-β,β-carotene

Source of chirality: natural and synthetic, S_N2 inversion

Absolute configuration: 3*S*, 3′*S*
(assigned by CD of corresponding diamine)

V. Dalmas and C. Demuynck

Tetrahedron: Asymmetry **1993,** *4*, 2383



$C_6H_{12}O_3S$

4,5-dideoxy-5-methylthio-D-Xylulose

E.e.= 76% by chiral CPV

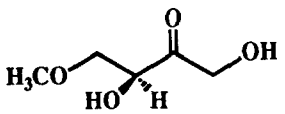
$[\alpha]_J^{25}$ = - 2 (c = 0.02, $CHCl_3$)

Source of chirality : Transketolase

Absolute configuration : 3S

V. Dalmas and C. Demuynck

Tetrahedron: Asymmetry **1993,** *4*, 2383



$C_5H_{10}O_4$

4-deoxy-4-methoxy-L-erythrulose

E.e.= 60% by chiral CPV

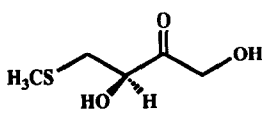
$[\alpha]_J^{25}$ = + 3 (c = 0.017, CH_3OH)

Source of chirality : Transketolase

Absolute configuration : 3S

V. Dalmas and C. Demuynck

Tetrahedron: Asymmetry **1993,** *4*, 2383



$C_5H_{10}O_3S$

4-deoxy-4-methylthio-L-erythrulose

E.e.= 64% by chiral CPV

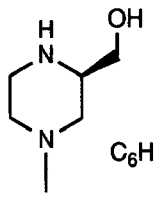
$[\alpha]_J^{25}$ = - 5 (c = 0.018, $CHCl_3$)

Source of chirality : Transketolase

Absolute configuration : 3S

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



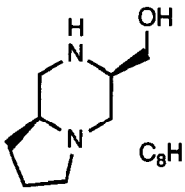
$C_6H_{14}N_2O$

E.e. = ≥95% (^{19}F NMR of MPTA amide)
bp 95-100 °C/0.02 mBar
$[\alpha]_D^{25}$ -3.34 (c 1, EtOAc)
Source of chirality: (S)-serine
Absolute configuration: 3R

3-Hydroxymethyl-1-methylpiperazine

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



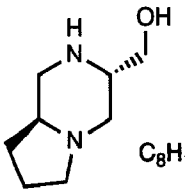
$C_8H_{14}N_2O$

E.e. = ≥ 95% (^{1}H NMR)
bp 125-130 °C/0.5 mBar
$[\alpha]_D^{25}$ +7.77 (c 2, $CHCl_3$)
Source of chirality: (S)-serine, (S)-proline
Absolute configuration: 2S,5R

5-Hydroxymethyl-1,4-diaza[4.3.0]bicyclononane

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



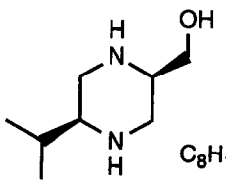
$C_8H_{14}N_2O$

E.e. = ≥ 95% (^{1}H NMR)
bp 112 °C/0.5 mBar
$[\alpha]_D^{25}$ +14.56 (c 1, $CHCl_3$)
Source of chirality: (R)-serine, (S)-proline
Absolute configuration: 2S,5S

5-Hydroxymethyl-1,4-diaza[4.3.0]bicyclononane

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



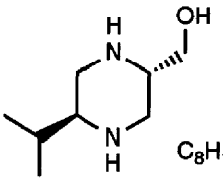
$C_8H_{16}N_2O$

E.e. = ≥ 95% (^{1}H NMR)
bp 115-117 °C/0.025 mBar
$[\alpha]_D^{25}$ -12.78 (c 3, $CHCl_3$)
Source of chirality: (S)-serine, (S)-valine
Absolute configuration: 2R,5S

2-Hydroxymethyl-5-*iso*-propylpiperazine

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



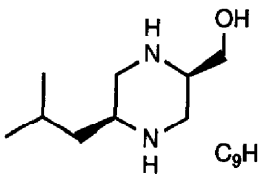
$C_8H_{16}N_2O$

E.e. = ≥ 95% (^{1}H NMR)
waxy solid
$[\alpha]_D^{25}$+5.61 (c 1, $CHCl_3$)
Source of chirality: (R)-serine, (S)-valine
Absolute configuration: 2S,5S

2-Hydroxymethyl-5-*iso*-propylpiperazine

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



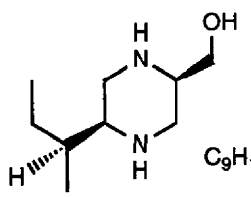
$C_9H_{18}N_2O$

E.e. =≥ 95% (^{1}H NMR)
bp 112-115 °C/0.15 mBar
$[\alpha]_D^{25}$+4.90 (c 9, $CHCl_3$)
Source of chirality: (S)-serine, (S)-leucine
Absolute configuration: 2R,5S

2-Hydroxymethyl-5-*iso*-butylpiperazine

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



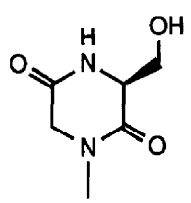
$C_9H_{18}N_2O$

E.e. = ≥ 95% (^{1}H NMR)
bp 110-114 °C/0.15 mBar
$[\alpha]_D^{25}$+20.47 (c 4, $CHCl_3$)
Source of chirality: (S)-serine, (2S,3S)-leucine
Absolute configuration: 2R,2'S,5S

2-Hydroxymethyl-5-(2'-butyl)piperazine

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



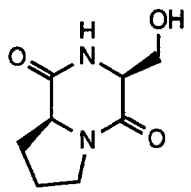
$C_6H_8N_2O_3$

E.e. = ≥95%
mp 227-230 °C (dec.)
$[\alpha]_D^{25}$+43.85 (c 0.6, DMF)
Source of chirality: (S)-serine
Absolute configuration: 3S

3-Hydroxymethyl-1-methyl-2,5-diketopiperazine (*cyclo*-Sarcosylserine)

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



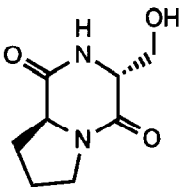
$C_8H_{10}N_2O_3$

E.e. = ≥95%
mp 134-136 °C
$[\alpha]_D^{25}$ -114.8 (c 2, DMSO)
Source of chirality: (S)-serine, (S)-proline
Absolute configuration: 2S,5S

5-Hydroxymethyl-3,6-diketo-1,4-diaza[4.3.0]bicyclononane (*cyclo*-Prolilserine)

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



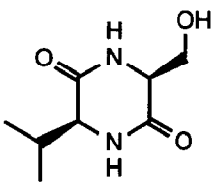
$C_8H_{10}N_2O_3$

E.e. = ≥95%
mp 248-250 °C (dec.)
$[\alpha]_D^{25}$ -149.55 (c 0.7, DMSO)
Source of chirality: (R)-serine, (S)-proline
Absolute configuration: 2S,5R

5-Hydroxymethyl-3,6-diketo-1,4-diaza[4.3.0]bicyclononane (*cyclo*-Prolilserine)

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



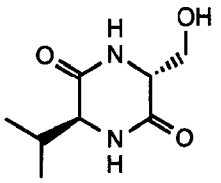
$C_8H_{12}N_2O_3$

E.e. = ≥95%
mp 245-249 °C (dec.)
$[\alpha]_D^{25}$ -85.52 (c 2, DMSO)
Source of chirality: (S)-serine, (S)-valine
Absolute configuration: 3S,6S

6-Hydroxymethyl-3-*iso*-propyl-2,5-diketopiperazine (*cyclo*-Valilserine)

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



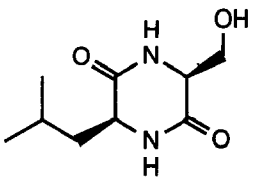
$C_8H_{12}N_2O_3$

E.e. = ≥95%
mp 230-232 °C (dec.)
$[\alpha]_D^{25}$ -23.88 (c 0.8, DMSO)
Source of chirality: (R)-serine, (S)-valine
Absolute configuration: 3S,6R

6-Hydroxymethyl-3-*iso*-propyl-2,5-diketopiperazine (*cyclo*-Valilserine)

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



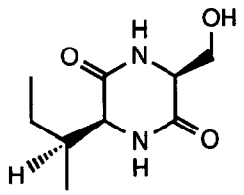
$C_9H_{14}N_2O_3$

E.e. = ≥95%
mp 231-233 °C (dec.)
$[\alpha]_D^{25}$-54.46 (c 0.6, DMF)
Source of chirality: (S)-serine, (S)-leucine
Absolute configuration: 3S,6S

6-Hydroxymethyl-3-*iso*-butyl-2,5-diketopiperazine (*cyclo*-Leucylserine)

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



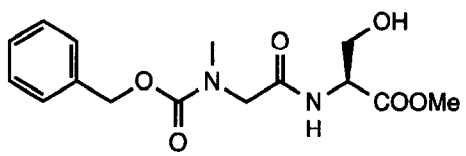
$C_9H_{14}N_2O_3$

E.e. = ≥95%
mp 235-237 °C (dec.)
$[\alpha]_D^{25}$-84.55 (c 1, DMF)
Source of chirality: (S)-serine, (2S,3S)-leucine
Absolute configuration: 2'S,3S,6S

6-Hydroxymethyl-3-(2'-butyl)-2,5-diketopiperazine (*cyclo*-Isoleucylserina)

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



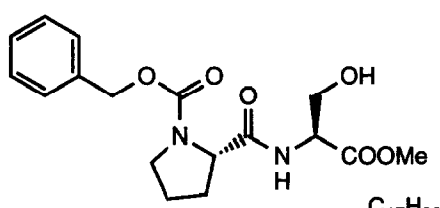
$C_{15}H_{20}N_2O_6$

E.e. = ≥95%
mp 45-49 °C
$[\alpha]_D^{25}$-16.20 (c 2, MeOH)
Source of chirality: (S)-serine
Absolute configuration: 2S

N-[N'-(Benzyloxycarbonyl)sarcosyl]serine methylester

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



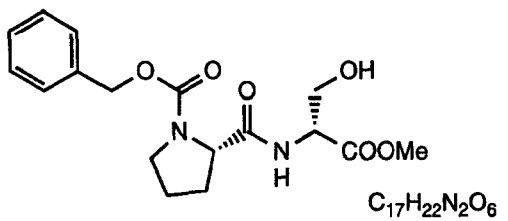
$C_{17}H_{22}N_2O_6$

E.e. = ≥95%
mp 103-107 °C
$[\alpha]_D^{25}$-28.95 (c 2, $CHCl_3$)
Source of chirality: (S)-serine, (S)-proline
Absolute configuration: 2S,2'S

N-[N'-(Benzyloxycarbonyl)prolyl]serine methylester

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



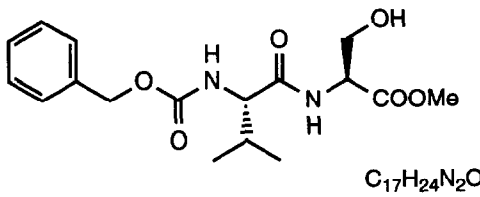
$C_{17}H_{22}N_2O_6$

E.e. = ≥95%
mp 123-125 °C
$[\alpha]_D^{25}$-100.72 (c 1.5, $CHCl_3$)
Source of chirality: (R)-serine, (S)-proline
Absolute configuration: 2R,2'S

N-[N'-(Benzyloxycarbonyl)prolyl]serine methylester

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



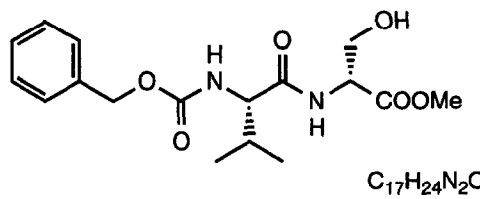
$C_{17}H_{24}N_2O_6$

E.e. = ≥95%
mp 160-163 °C
$[\alpha]_D^{25}$+2.73 (c 2.8, $CHCl_3$)
Source of chirality: (S)-serine, (S)-valine
Absolute configuration: 2S,2'S

N-[N'-(Benzyloxycarbonyl)valyl]serine methylester

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



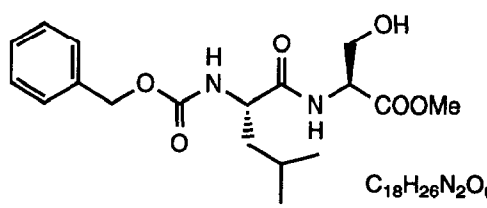
$C_{17}H_{24}N_2O_6$

E.e. = ≥95%
mp 161-163 °C
$[\alpha]_D^{25}$-29.73 (c 2, $CHCl_3$)
Source of chirality: (R)-serine, (S)-valine
Absolute configuration: 2R,2'S

N-[N'-(Benzyloxycarbonyl)valyl]serine methylester

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



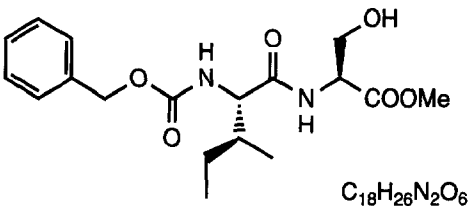
$C_{18}H_{26}N_2O_6$

E.e. = ≥95%
mp 103-106 °C
$[\alpha]_D^{25}$-3.73 (c 10, $CHCl_3$)
Source of chirality: (S)-serine, (S)-leucine
Absolute configuration: 2S,2'S

N-[N'-(Benzyloxycarbonyl)leucyl]serine methylester

M. Falorni, M. Satta, S. Conti and G. Giacomelli

Tetrahedron: Asymmetry **1993**, *4*, 2389



$C_{18}H_{26}N_2O_6$

E.e. = ≥95%

mp 175-177 °C

$[\alpha]_D^{25}$+8.13 (c 2, $CHCl_3$)

Source of chirality: (S)-serine, (2S,3S)-isoleucine

Absolute configuration: 2S,2'S,3'S

N-[N'-(Benzyloxycarbonyl)isoleucyl]serine methylester