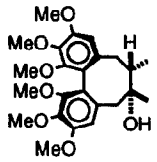
M. Tanaka, H. Itoh, H. Mitsuhashi, M. Maruno, and T. Wakamatsu

Tetrahedron: Asymmetry **1993**, *4*, 605



$C_{24}H_{32}O_7$

(*6R, 7S, Rbiar*)-5,6,7,8-tetrahydro-6-hydroxy-1,2,3,10,11,12-hexamethoxy-6,7-dimethyldibenzo[a,c]cyclooctene (isoschizandrin)

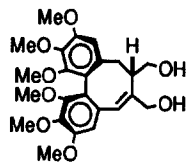
E.e.=100.0%

$[\alpha]_D^{25}$= +100.1 (*c* 0.705, $CHCl_3$)

Source of chirality: Asymm. synth. (hydrogenation)

M. Tanaka, H. Itoh, H. Mitsuhashi, M. Maruno, and T. Wakamatsu

Tetrahedron: Asymmetry **1993**, *4*, 605



$C_{24}H_{30}O_8$

(*7S, Rbiar*)-7,8-dihydro-6,7-bis(hydroxymethyl)-1,2,3,10,11,12-hexamethoxydibenzo[a,c]cyclooctene

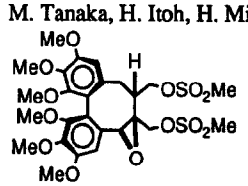
E.e.=100.0%

$[\alpha]_D^{27}$= -175 (*c* 0.854, $CHCl_3$)

Source of chirality: Asymm. synth. (hydrogenation)

M. Tanaka, H. Itoh, H. Mitsuhashi, M. Maruno, and T. Wakamatsu

Tetrahedron: Asymmetry **1993**, *4*, 605



$C_{26}H_{34}S_2O_{13}$

(*5S, 6S, 7R, Rbiar*)-5,6-epoxy-5,6,7,8-tetrahydro-6,7-bis(methanesulfonyloxymethyl)-1,2,3,10,11,12-hexamethoxydibenzo[a,c]cyclooctene

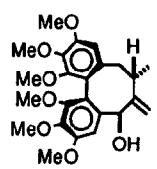
E.e.=100.0%

$[\alpha]_D^{25}$= +45.8 (*c* 0.515, $CHCl_3$)

Source of chirality: Asymm. synth. (hydrogenation)

M. Tanaka, H. Itoh, H. Mitsuhashi, M. Maruno, and T. Wakamatsu

Tetrahedron: Asymmetry **1993**, *4*, 605



$C_{24}H_{30}O_7$

(*5R, 7S, Rbiar*)-5,6,7,8-tetrahydro-5-hydroxy-1,2,3,10,11,12-hexamethoxy-7-methyl-6-methylenedibenzo[a,c]cyclooctene

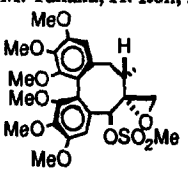
E.e.=100.0%

$[\alpha]_D^{25}$= +194.7 (*c* 0.265, $CHCl_3$)

Source of chirality: Asymm. synth. (hydrogenation)

M. Tanaka, H. Itoh, H. Mitsuhashi, M. Maruno, and T. Wakamatsu

Tetrahedron: Asymmetry **1993**, *4*, 605



E.e.=100.0%

$[\alpha]_D^{25}$= +131.6 (*c* 0.415, $CHCl_3$)

Source of chirality: Asymm. synth. (hydrogenation)

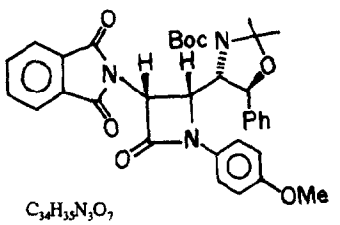
$C_{25}H_{32}SO_{10}$

(*5S, 6S, 7S, Rbiar*)-6,6-epoxymethano)-5,6,7,8-tetrahydro-5-(methanesulfonyloxy)-1,2,3,10,11,12-hexyamethoxy-7-methyldibenzo[a,c]cyclooctene

---

M. Jayaraman, M. Nandi, K.M. Sathe, A.R.A.S. Deshmukh and B.M. Bhawal*

Tetrahedron: Asymmetry **1993**, *4*, 609



E.e.= 100.0%

$[\alpha]_D^{25}$ = -90.1 (c 1, $CHCl_3$)

Source of chirality: Synthesis from (+) (1S,2S)-2-Amino-1-phenyl-propan-1,3-diol.

Absolute configuration: 3R,4S,4'S,5'S

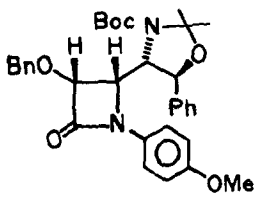
$C_{34}H_{35}N_3O_7$

(3R,4S,4'S,5'S) N-(*p*-Anisyl)-3-phthalimido-4-[N-*t*-butoxycarbonyl-2',2'-dimethyl-5'-phenyl-1',3'-oxazolidin-4'-yl] azetidin-2-one

---

M. Jayaraman, M. Nandi, K.M. Sathe, A.R.A.S. Deshmukh and B.M. Bhawal*

Tetrahedron: Asymmetry **1993**, *4*, 609



E.e.= 100.0%

$[\alpha]_D^{25}$ = +47.9 (c 1, $CHCl_3$)

Source of chirality: Synthesis from (+) (1S,2S)-2-Amino-1-phenyl-propan-1,3-diol.

Absolute configuration: 3R,4S,4'S,5'S

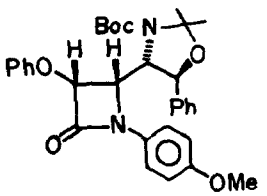
$C_{33}H_{38}N_2O_6$

(3R,4S,4'S,5'S) N-(*p*-Anisyl)-3-benzyloxy-4-[N-*t*-butoxycarbonyl-2',2'-dimethyl-5'-phenyl-1',3'-oxazolidin-4'-yl]azetidin-2-one

---

M. Jayaraman, M. Nandi, K.M. Sathe, A.R.A.S. Deshmukh and B.M. Bhawal*

Tetrahedron: Asymmetry **1993**, *4*, 609



E.e.= 100.0%

$[\alpha]_D^{25}$ = +86.7 (c 1, $CHCl_3$)

Source of chirality: Synthesis from (+) (1S,2S)-2-Amino-1-phenyl-propan-1,3-diol.

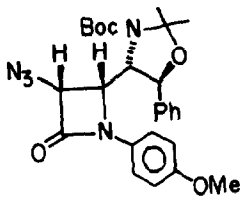
Absolute configuration: 3R,4S,4'S,5'S

$C_{32}H_{36}N_2O_6$

(3R,4S,4'S,5'S) N-(*p*-Anisyl)-3-phenoxy-4-[N-*t*-butoxycarbonyl-2',2'-dimethyl-5'-phenyl-1',3'-oxazolidin-4'-yl]azetidin-2-one

M. Jayaraman, M. Nandi, K.M. Sathe, A.R.A.S. Deshmukh and B.M. Bhawal*

Tetrahedron: Asymmetry **1993**, *4*, 609



E.e.= 100.0%

$[\alpha]_D^{25}$ = +86.6 (c 1, $CHCl_3$)

Source of chirality: Synthesis from (+) (1S,2S)-2-Amino-1-phenyl-propan-1,3-diol.

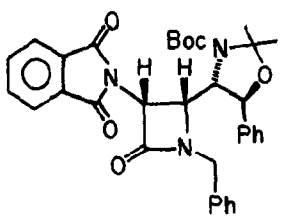
Absolute configuration: 3R,4S,4'S,5'S

$C_{26}H_{31}N_5O_5$

(3R,4S,4'S,5'S) N-(*p*-Anisyl)-3-azido-4-[N-*t*-butoxycarbonyl-2',2'-dimethyl-5'-phenyl-1',3'-oxazolidin-4'-yl]azetidin-2-one

M. Jayaraman, M. Nandi, K.M. Sathe, A.R.A.S. Deshmukh and B.M. Bhawal*

Tetrahedron: Asymmetry **1993**, *4*, 609



E.e.= 100.0%

$[\alpha]_D^{25}$ = -138.4 (c 1, $CHCl_3$)

Source of chirality: Synthesis from (+) (1S,2S)-2-Amino-1-phenyl-propan-1,3-diol.

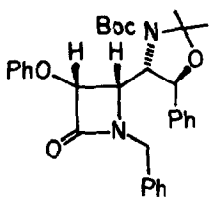
Absolute configuration: 3R,4S,4'S,5'S

$C_{34}H_{35}N_3O_6$

(3R,4S,4'S,5'S) N-Benzyl-3-phthalimido-4-[N-*t*-butoxycarbonyl-2',2'-dimethyl-5'-phenyl-1',3'-oxazolidin-4'-yl]azetidin-2-one

M. Jayaraman, M. Nandi, K.M. Sathe, A.R.A.S. Deshmukh and B.M. Bhawal*

Tetrahedron: Asymmetry **1993**, *4*, 609



E.e.= 100.0%

$[\alpha]_D^{25}$ = -29.2 (c 1, $CHCl_3$)

Source of chirality: Synthesis from (+) (1S,2S)-2-Amino-1-phenyl-propan-1,3-diol.

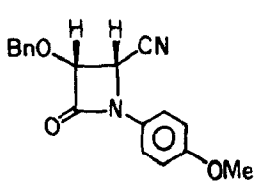
Absolute configuration: 3R,4S,4' S,5'S

$C_{32}H_{36}N_2O_5$

(3R,4S,4'S,5'S) N-Benzyl-3-phenoxy-4-[N-*t*-butoxycarbonyl-2',2'-dimethyl- 5'-phenyl-1',3'-oxazolidin-4'-yl]azetidin-2-one

M. Jayaraman, M. Nandi, K.M. Sathe, A.R.A.S. Deshmukh and B.M. Bhawal*

Tetrahedron: Asymmetry **1993**, *4*, 609



E.e.= 100.0%

$[\alpha]_D^{25}$ = +140.2 (c 1, $CHCl_3$)

Source of chirality: Synthesis from (+) (1S,2S)-2-Amino-1-phenyl-propan-1,3-diol.

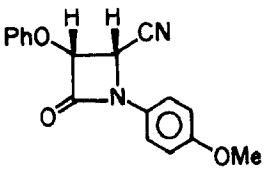
Absolute configuration: 3R,4S

$C_{18}H_{16}N_2O_3$

(3R,4S,) N-(*p*-Anisyl)-3-benzyloxy-4-cyanoazetidin-2-one

M. Jayaraman, M. Nandi, K.M. Sathe, A.R.A.S. Deshmukh and B.M. Bhawal*

Tetrahedron: Asymmetry **1993**, *4*, 609



$C_{17}H_{14}N_2O_3$

(3R,4S) N-(*p*-Anisyl)-3-phenoxy-4-cyanoazetidin-2-one

E.e.= 100.0%

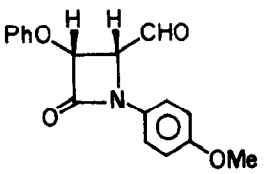
$[\alpha]_D^{25}$ = +135.6 (c 1, $CHCl_3$)

Source of chirality: Synthesis from (+) (1S,2S)-2-Amino-1-phenyl-propan-1,3-diol.

Absolute configuration: 3R,4S

M. Jayaraman, M. Nandi, K.M. Sathe, A.R.A.S. Deshmukh and B.M. Bhawal*

Tetrahedron: Asymmetry **1993**, *4*, 609



$C_{17}H_{15}NO_4$

(3R,4R) N-(*p*-Anisyl)-3-phenoxy-4-formylazetidin-2-one

E.e.= 100.0%

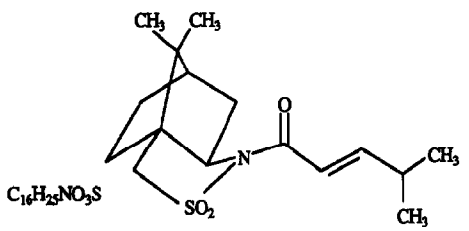
$[\alpha]_D^{25}$ = +173.4 (c 1, $CHCl_3$)

Source of chirality: Synthesis from (+) (1S,2S)-2-Amino-1-phenyl-propan-1,3-diol.

Absolute configuration: 3R,4R

C. Girard, G. Mandville and R. Bloch

Tetrahedron: Asymmetry **1993**, *4*, 613



N-[4-Methyl-2-pentenoyl]-10,2-bornanesultam

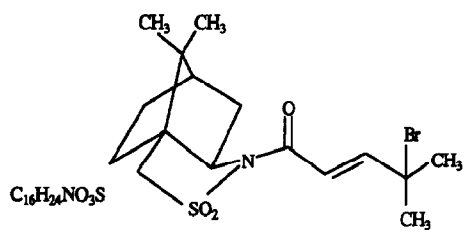
$[\alpha]_D^{20}$ = -91.7 (c 0.92, $CHCl_3$)

Source of chirality : natural

Absolute configuration : 1R,5S,7R

C. Girard, G. Mandville and R. Bloch

Tetrahedron: Asymmetry **1993**, *4*, 613



N-[4-Bromo-4-methyl-2-pentenoyl]-10,2-bornanesultam

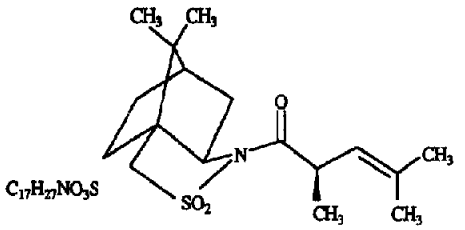
$[\alpha]_D^{20}$ = -77.7 (c 0.92, $CHCl_3$)

Source of chirality : natural

Absolute configuration : 1R,5S,7R

C. Girard, G. Mandville and R. Bloch

Tetrahedron: Asymmetry **1993**, *4*, 613

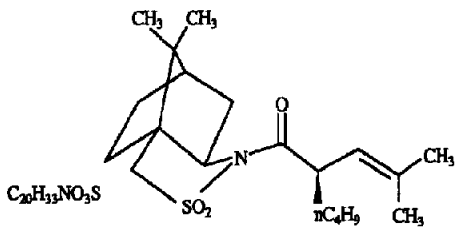


4-N-[2,4-Dimethyl-3-pentenoyl]-10,2-bornanesultam

$[\alpha]_D^{20}$ = -120,5 (c 0.87, $CHCl_3$)
Source of chirality : natural and asymm. synth.
Absolute configuration : 1R,5S,7R,2'R

C. Girard, G. Mandville and R. Bloch

Tetrahedron: Asymmetry **1993**, *4*, 613

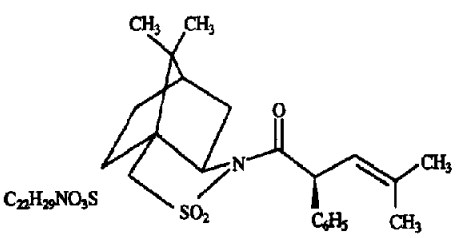


N-[2-Butyl-4-methyl-3-pentenoyl]-10,2-bornanesultam

$[\alpha]_D^{20}$ = -99,8 (c1.9, $CHCl_3$)
Source of chirality : natural and asymm. synth.
Absolute configuration : 1R,5S,7R,2'R

C. Girard, G. Mandville and R. Bloch

Tetrahedron: Asymmetry **1993**, *4*, 613

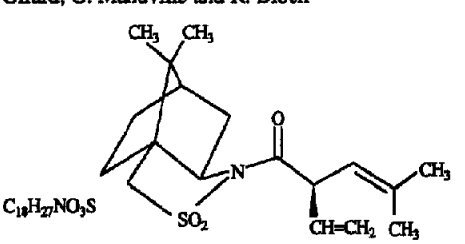


N-[4-methyl-2-phenyl-3-pentenoyl]-10,2-bornanesultam

$[\alpha]_D^{20}$ = -72,5 (c 1.0, $CHCl_3$)
Source of chirality : natural and asymm. synth.
Absolute configuration : 1R,5S,7R,2'S

C. Girard, G. Mandville and R. Bloch

Tetrahedron: Asymmetry **1993**, *4*, 613

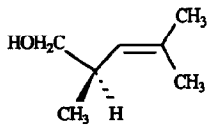


N-[2-ethenyl-4-methyl-3-pentenoyl]-10,2-bornanesultam

$[\alpha]_D^{20}$ = -36,5 (c 1.0, $CHCl_3$)
Source of chirality : natural and asymm. synth.
Absolute configuration : 1R,5S,7R,2'R

C. Girard, G. Mandville and R. Bloch

Tetrahedron: Asymmetry **1993,** *4*, 613



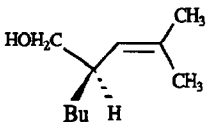
$C_7H_{14}O$

2,4-Dimethyl-3-penten-1-ol

E.e. = 98% by chiral GLC (CP-Cyclodextrin-β -2,3,6M-19)
$[\alpha]_D^{20}$ = +41.3 (c 0.9, $CHCl_3$)
Source of chirality : natural and asymm. synth.
Absolute configuration : 2R

C. Girard, G. Mandville and R. Bloch

Tetrahedron: Asymmetry **1993,** *4*, 613



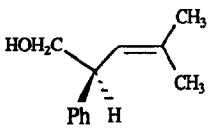
$C_{10}H_{20}O$

2-Butyl-4-methyl-3-penten-1-ol

E.e. = 98% by chiral GLC (CP-Cyclodextrin-β -2,3,6M-19)
$[\alpha]_D^{20}$ = +13.4 (c 1.26, $CHCl_3$)
Source of chirality : natural and asymm. synth.
Absolute configuration : 2R

C. Girard, G. Mandville and R. Bloch

Tetrahedron: Asymmetry **1993,** *4*, 613



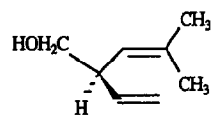
$C_{12}H_{16}O$

2-Phenyl-4-methyl-3-penten-1-ol

E.e. = 95% by chiral GLC (CP-Cyclodextrin-β-2,3,6M-19)
$[\alpha]_D^{20}$ = +104.7 (c 0.87, $CHCl_3$)
Source of chirality : natural and asymm. synth.
Absolute configuration : 2S

C. Girard, G. Mandville and R. Bloch

Tetrahedron: Asymmetry **1993,** *4*, 613



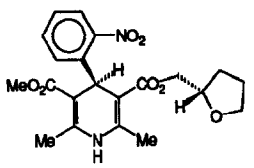
$C_8H_{14}O$

2-Ethenyl-4-methyl-3-penten-1-ol

E.e. = 96% by chiral GLC (CP-Cyclodextrin-β-2,3,6M-19)
$[\alpha]_D^{20}$ = +2.7 (c 0.95, $CHCl_3$)
Source of chirality : natural and asymm. synth.
Absolute configuration : 2R

R. Alajarin, J. Alvarez-Builla, J.J. Vaquero, C. Sunkel, M. Fau de Casa-Juana, P. Statkow and J. Sanz-Aparicio

Tetrahedron: Asymmetry **1993**, *4*, 617



$C_{20}H_{24}N_2O_7$

D.e.=>99% (by HPLC-CSP analysis)

$[\alpha]_D$ =+154.3 (*c* 0.49, $CHCl_3$)

Source of chirality: chromatographic separation of diastereomers

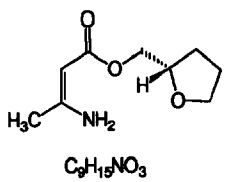
Absolute configuration: R,S (assigned by X-Ray analysis)

S,R-Enantiomer, $[\alpha]_D$ =-147.7 (*c* 0.51 $CHCl_3$),

2,6-Dimethyl-4-(2-nitrophenyl)-1,4-dihydropyridine-3,5-dicarboxylic acid methyl ester tetrahydrofuran-2-ylmethyl ester

R. Alajarin, J. Alvarez-Builla, J. J. Vaquero, C. Sunkel, M. Fau de Casa-Juana, P. Statkow and J. Sanz-Aparicio

Tetrahedron: Asymmetry **1993**, *4*, 617



$C_9H_{15}NO_3$

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

$[\alpha]_D$ =+31.7 (*c* 1.11, $CHCl_3$)

Source of chirality: (S)-tetrahydrofurfuryl alcohol

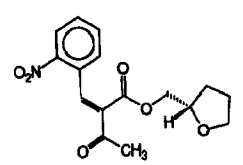
Absolute configuration: S

R-Enantiomer, $[\alpha]_D$ =-27.3 (*c* 1.22 $CHCl_3$), e.e=95% was also obtained from (R)-tetrahydrofurfuryl alcohol

3-Aminobut-2-enoic acid tetrahydrofuran-2-ylmethyl ester

R. Alajarin, J. Alvarez-Builla, J. J. Vaquero, C. Sunkel, M. Fau de Casa-Juana, P. Statkow and J. Sanz-Aparicio

Tetrahedron: Asymmetry **1993**, *4*, 617



$C_{16}H_{17}NO_5$

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

$[\alpha]_D$ =+15.9 (*c* 0.95, $CHCl_3$)

Source of chirality: (S)-tetrahydrofurfuryl alcohol

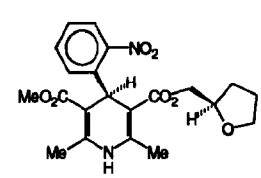
Absolute configuration: S

R-Enantiomer, $[\alpha]_D$ =-17.1 (*c* 0.85 $CHCl_3$), e.e=95% was also obtained from (R)-tetrahydrofurfuryl alcohol

2-Acetyl-3-(2-nitrophenyl)acrylic acid tetrahydrofuran-2-ylmethyl ester

R. Alajarin, J. Alvarez-Builla, J. J. Vaquero, C. Sunkel, M. Fau de Casa-Juana, P. Statkow and J. Sanz-Aparicio

Tetrahedron: Asymmetry **1993**, *4*, 617



$C_{20}H_{24}N_2O_7$

D.e.=>99% (by HPLC-CSP analysis)

$[\alpha]_D$ =-121.5 (*c* 0.54, $CHCl_3$)

Source of chirality: chromatographic separation of diastereomers

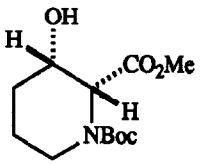
Absolute configuration: R,R (assigned by X-Ray analysis)

S,S-Enantiomer, $[\alpha]_D$ =-120.0 (*c* 0.52 $CHCl_3$)

2,6-Dimethyl-4-(2-nitrophenyl)-1,4-dihydropyridine-3,5-dicarboxylic acid methyl ester tetrahydrofuran-2-ylmethyl ester

D.W. Knight, N. Lewis, A.C. Share, D. Haigh

Tetrahedron: Asymmetry **1993**, *4*, 625



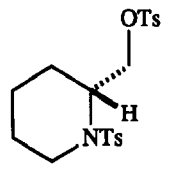
$C_{12}H_{21}NO_5$

Methyl 1-^{t}Butyloxycarbonyl-3-hydroxy-2-piperidinecarboxylate

D.e. = > 99% *cis* (^{1}H and ^{13}C NMR)
E.e. = > 93% (Chemical degradation; chiral shift reagent)
$[\alpha]_D^{22}$ + 47.9 (c, 3.8, CH_2Cl_2)
Source of chirality: Yeast reduction
Absolute configuration: 2R,3S (comp. with lit. data)

D.W. Knight, N. Lewis, A.C. Share, D. Haigh

Tetrahedron: Asymmetry **1993**, *4*, 625



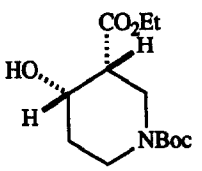
$C_{20}H_{25}NO_5S_2$

Bis-(N,O-*p*-toluenesulphonyl)-2-piperidinemethanol

E.e. = > 97% (chiral shift reagent; comp lit. data)
$[\alpha]_D^{22}$ + 55.0 (c, 0.8, EtOH)
Source of chirality: Yeast reduction; chemical degradation
Absolute configuration: R (comp. with lit. data)

D.W. Knight, N. Lewis, A.C. Share, D. Haigh

Tetrahedron: Asymmetry **1993**, *4*, 625



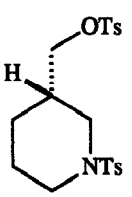
$C_{13}H_{23}NO_5$

Methyl 1-^{t}Butyloxycarbonyl-4-hydroxy-3-piperidinecarboxylate

D.e. = > 99% *cis* (^{1}H and ^{13}C NMR)
E.e. = > 93% (Chemical degradation; chiral shift reagent)
$[\alpha]_D^{22}$ + 25.6 (c, 2.4, CH_2Cl_2)
Source of chirality: Yeast reduction
Absolute configuration: 3R,4S (comp. with lit. data)

D.W. Knight, N. Lewis, A.C. Share, D. Haigh

Tetrahedron: Asymmetry **1993**, *4*, 625



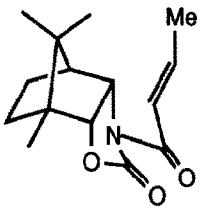
$C_{20}H_{25}NO_5S_2$

Bis-(N,O-*p*-toluenesulphonyl)-3-piperidinemethanol

E.e. = > 93% (chiral shift reagent; comp lit. data)
$[\alpha]_D^{22}$ - 50.2 (c, 1.1, $CHCl_3$)
Source of chirality: Yeast reduction; chemical degradation
Absolute configuration: S (comp. with lit. data)

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

Tetrahedron: Asymmetry **1993,** *4*, 629

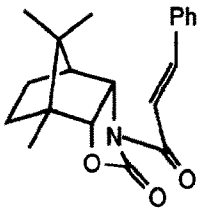


Absolute configuration; 1*R*, 2*R*, 6*S*, 7*S*
$[\alpha]_D^{23}$ +181.8 (c 2.02, $CHCl_3$)
Prepared from (1*R*, 2*R*, 6*S*, 7*S*)-5-aza-1,10,10-trimethyl-3-oxatricyclo[5.2.1.$0^{2,6}$]decan-4-one

$C_{15}H_{21}NO_3$ *N*-Crotonyl-5-aza-1,10,10-trimethyl-3-oxatricyclo[5.2.1.$0^{2,6}$]decan-4-one

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

Tetrahedron: Asymmetry **1993,** *4*, 629



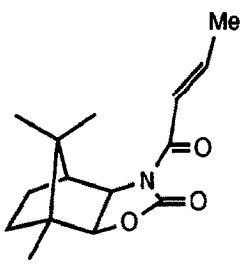
Absolute configuration; 1*R*, 2*R*, 6*S*, 7*S*
$[\alpha]_D^{21}$ +131.0 (c 2.02, $CHCl_3$)
Prepared from (1*R*, 2*R*, 6*S*, 7*S*)-5-aza-1,10,10-trimethyl-3-oxatricyclo[5.2.1.$0^{2,6}$]decan-4-one

$C_{20}H_{23}NO_3$

N-Cinnamoyl-5-aza-1,10,10-trimethyl-3-oxatricyclo[5.2.1.$0^{2,6}$]decan-4-one

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

Tetrahedron: Asymmetry **1993,** *4*, 629

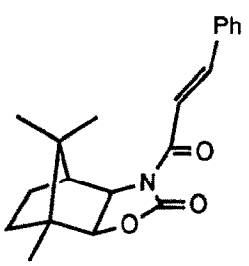


Absolute configuration; 1*R*, 2*S*, 6*R*, 7*S*
$[\alpha]_D^{23}$ -85.8 (c 2.02, $CHCl_3$)
Prepared from (1*R*, 2*S*, 6*R*, 7*S*)-5-aza-1,10,10-trimethyl-3-oxatricyclo[5.2.1.$0^{2,6}$]decan-4-one

$C_{15}H_{21}NO_3$ *N*-Crotonyl-5-aza-1,10,10-trimethyl-3-oxatricyclo[5.2.1.$0^{2,6}$]decan-4-one

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

Tetrahedron: Asymmetry **1993,** *4*, 629

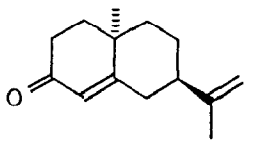


Absolute configuration; 1*R*, 2*S*, 6*R*, 7*S*
$[\alpha]_D^{21}$ -31.0 (c 2.02, $CHCl_3$)
Prepared from (1*R*, 2*S*, 6*R*, 7*S*)-5-aza-1,10,10-trimethyl-3-oxatricyclo[5.2.1.$0^{2,6}$]decan-4-one

$C_{20}H_{23}NO_3$ *N*-Cinnamoyl-5-aza-1,10,10-trimethyl-3-oxatricyclo[5.2.1.$0^{2,6}$]decan-4-one

B. S. M. Tenius, E. R. de Oliveira, H. M. Ferraz

Tetrahedron: Asymmetry **1993**, *4*, 633

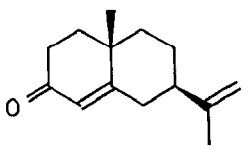


d.e. > 95% (by ^{1}H and ^{13}C NMR)
$[\alpha]^{20}$ = -85 (c = 0.06, ethanol)
source of chirality: S-(-)-phenylethylamine,
R-(-)-carvone

(4aR,7R)-4,4a,5,6,7,8-hexahydro-7-isopropenyl-4a-methylnaphtalene-2(3H)-one (3)

B. S. M. Tenius, E. R. de Oliveira, H. M. Ferraz

Tetrahedron: Asymmetry **1993**, *4*, 633

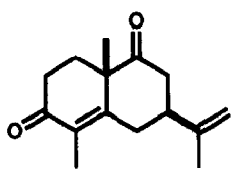


d.e. > 58% (by ^{1}H and ^{13}C NMR)
$[\alpha]^{20}$ = +48.9 (c = 0.08, ethanol)
source of chirality: R-(+)-phenylethylamine,
R-(-)-carvone

(4aS,7R)-4,4a,5,6,7,8-hexahydro-7-isopropenyl-4a-methylnaphtalene-2(3H)-one (4)

C. Agami, C. Kadouri-Puchot and V. Le Guen

Tetrahedron: Asymmetry **1993**, *4*, 641



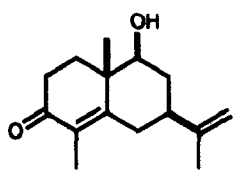
$C_{15}H_{20}O_2$

$[\alpha]^{D}_{20}$ = +31.3 (c = 0.7, dioxane)
prepared via intramolecular aldol reaction catalyzed by S-phenylalanine

(3S,8aS)-3,4,8,8a-Tetrahydro-5,8aβ-dimethyl-3β(1-methylethenyl)-1,6(2H,7H)-naphtalenedione

C. Agami, C. Kadouri-Puchot and V. Le Guen

Tetrahedron: Asymmetry **1993**, *4*, 641



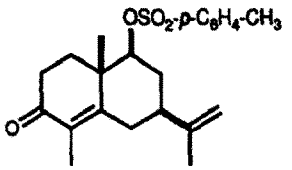
$C_{15}H_{22}O_2$

$[\alpha]^{D}_{20}$ = +78.7 (c = 0.5, dioxane)
prepared from a homochiral enedione

(4aS,5S,7S)-4,4a,5,6,7,8-Hexahydro-5β-hydroxy-1,4aβ-dimethyl-7β(1-methylethenyl)-2(3H)-naphtalenone

C. Agami, C. Kadouri-Puchot and V. Le Guen

Tetrahedron: Asymmetry **1993**, *4*, 641



$C_{22}H_{28}O_4S$

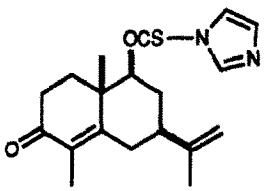
$[\alpha]^D_{20}$ = +42.5 (c = 1, dioxane)
prepared from a homochiral alcohol

(4aS,5S,7S)-4,4a,5,6,7,8-Hexahydro-1,4aβ-dimethyl-5β(4-toluenesulfonyl)-7β(1-methylethenyl)--2(3H)-naphtalenone

---

C. Agami, C. Kadouri-Puchot and V. Le Guen

Tetrahedron: Asymmetry **1993**, *4*, 641



$C_{19}H_{24}O_2S$

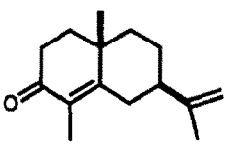
$[\alpha]^D_{20}$ = +80.2 (c = 0.5, $CHCl_3$)
prepared from a homochiral alcohol

(4aS,5S,7S)-4,4a,5,6,7,8-Hexahydro-5β-imidazolylthiocarbonyloxy-1,4aβ-dimethyl--7β(1-methylethenyl)-2(3H)-naphtalenone

---

C. Agami, C. Kadouri-Puchot and V. Le Guen

Tetrahedron: Asymmetry **1993**, *4*, 641



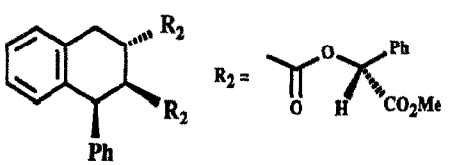
$C_{15}H_{22}O$

$[\alpha]^D_{20}$ = +87.9 (c=1.5, $CHCl_3$)
$[\alpha]^D_{20}$ = +79.2 (c=0.09, dioxane)
prepared from a homochiral thiocarbonyl-imidazolide

(4aS,7R)-4,4a,5,6,7,8-Hexahydro-1,4a-dimethyl-7β(1-methylethenyl)-2(3H)-naphtalenone (α-cyperone)

J. L. Charlton, S. Maddaford, K. Koh, S. Boulet and M. H. Saunders

Tetrahedron: Asymmetry **1993**, *4*, 645



$C_{36}H_{32}O_8$

Di-(α-methoxycarbonylbenzyl) 1-phenyl-1,2,3,4-tetrahydronaphthalene-2,3-dicarboxylate

E.e. = 100% by nmr

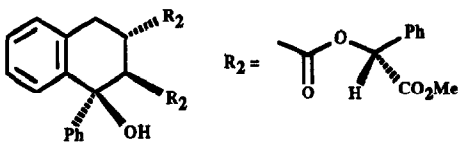
$[\alpha]D^{20}$ = +57.9 (c 0.38 $CHCl_3$)

Source of chirality: from 1R or 4S alcohol

Absolute configuration R,R,1S,2R,3S assigned by correlation

Tetrahedron: Asymmetry **1993,** *4*, 645

J. L. Charlton, S. Maddaford, K. Koh, S. Boulet and M. H. Saunders



$C_{36}H_{32}O_9$

Di-(α-methoxycarbonylbenzyl) 1-phenyl-1-hydroxy-1,2,3,4-tetrahydronaphthalene-2,3-dicarboxylate

E.e. = 100% by nmr

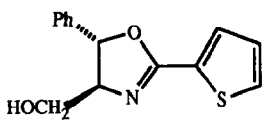
$[\alpha]_D^{20}$ = -182 (c 0.247, $CHCl_3$)

Source of chirality: asymm. synth (Diels-Alder)

Absolute configuration R,R,1R,2R,3S assigned by correlation

Tetrahedron: Asymmetry **1993,** *4*, 649

Joanne V. Allen, Christopher G. Frost and Jonathan M. J. Williams*



$C_{14}H_{13}NO_2S$

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

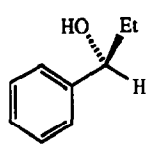
$[\alpha]_D^{25}$ = +50.0 (c = 1.02, $CHCl_3$)

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

Absolute configuration: 4S, 5S

Tetrahedron: Asymmetry **1993,** *4*, 649

Joanne V. Allen, Christopher G. Frost and Jonathan M. J. Williams*



$C_9H_{12}O$

(S)-(-)-1-Phenylpropanol

E.e. = 57% (by chiral hplc on a Chiralcel OB column)

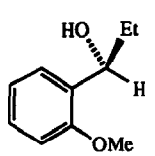
$[\alpha]_D^{25}$ = -25.2 (c = 1.00, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: S (assigned by comparison of optical rotations)

Tetrahedron: Asymmetry **1993,** *4*, 649

Joanne V. Allen, Christopher G. Frost and Jonathan M. J. Williams*



$C_{10}H_{14}O_2$

(S)-(-)-1-(2-methoxyphenyl)propanol

E.e. = 67% (by chiral hplc on a Chiralcel OB column)

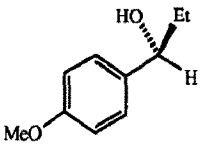
$[\alpha]_D^{25}$ = -36.1 (c = 0.36, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: S (assigned by comparison of optical rotations)

Joanne V. Allen, Christopher G. Frost and Jonathan M. J. Williams*

Tetrahedron: Asymmetry **1993**, *4*, 649



$C_{10}H_{14}O_2$
(S)-(-)-1-(4-methoxyphenyl)propanol

E.e. = 58% (by chiral hplc on a Chiralcel OB column)

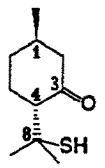
$[\alpha]_D^{25}$ = -21.0 (c = 1.00, C_6H_6)

Source of chirality: asymmetric synthesis

Absolute configuration: S (assigned by comparison of optical rotations)

Armin Mosandl, Thomas Köpke and Wolfgang Bensch

Tetrahedron: Asymmetry **1993**, *4*, 651

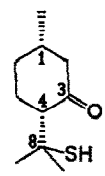


8-mercapto-p-menthan-3-one

100% ee
Absolute configuration: (1R, 4R) via X-ray diffraction of the corresponding 3,5-dinitrobenzoylthiolate.
Crystal data: Fachinformationszentrum Energie, Physik, Mathematik, D-7514 Eggenstein - Leopoldshafen 2
deposition No. CSD 56 906

Armin Mosandl, Thomas Köpke and Wolfgang Bensch

Tetrahedron: Asymmetry **1993**, *4*, 651

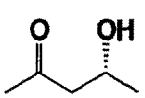


8-mercapto-p-menthan-3-one

100% ee
Absolute configuration: (1S, 4R) via X-ray diffraction of the corresponding 3,5-dinitrobenzoylthiolate.
Crystal data: Fachinformationszentrum Energie, Physik, Mathematik, D-7514 Eggenstein - Leopoldshafen 2
deposition No. CSD 56 906

Wolfgang Bensch, Armin Mosandl and Katja Fischer

Tetrahedron: Asymmetry **1993**, *4*, 655

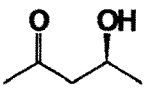


4-hydroxypentan-2-one

e.E. 100 %. Absolute configuration: (4R) via X-ray diffraction of the corresponding (S)-TOF ester crystal data: Fachinformationszentrum Energie, Physik, Mathematik D-7514 Eggenstein-Leopoldshafen 2, deposition No. CSD 56 907

Wolfgang Bensch, Armin Mosandl and Katja Fischer

Tetrahedron: Asymmetry **1993**, *4*, 655

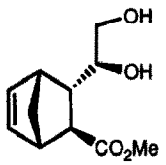


e.E. 100 %. Absolute configuration: (4S) via X-ray diffraction of the corresponding (S)-TOF ester crystal data: Fachinformationszentrum Energie, Physik, Mathematik, D-7514 Eggenstein-Leopoldshafen 2, deposition No. CSD 56 907

4-hydroxypentan-2-one

Tetrahedron: Asymmetry **1993**, *4*, 669

Ramon Casas, Javier Ibarzo, José M. Jiménez, Rosa M. Ortuño,



$[\alpha]_D$= +48.8 (c 0.76, $CHCl_3$)

Source of chirality: D-Mannitol.

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

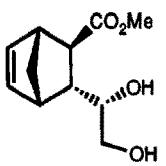
$C_{11}H_{16}O_4$

3-[1,2-dihydroxyethyl]-2-methoxycarbonylbicyclo[2.2.1.]hept-5-ene

---

Tetrahedron: Asymmetry **1993**, *4*, 669

Ramon Casas, Javier Ibarzo, José M. Jiménez, Rosa M. Ortuño,



$[\alpha]_D$=-50.5 (c 2.37, $CHCl_3$)

Source of chirality: D-Mannitol.

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

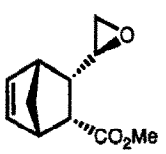
$C_{11}H_{16}O_4$

3-[1,2-dihydroxyethyl]-2-methoxycarbonylbicyclo[2.2.1.]hept-5-ene

---

Tetrahedron: Asymmetry **1993**, *4*, 669

Ramon Casas, Javier Ibarzo, José M. Jiménez, Rosa M. Ortuño,



$[\alpha]_D$=-101.1 (c 0.91, $CHCl_3$)

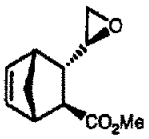
Source of chirality: D-Mannitol.

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

$C_{11}H_{14}O_3$

3-epoxyethyl-2-methoxycarbonylbicyclo[2.2.1.]hept-5-ene

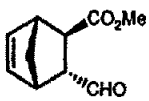
Ramon Casas, Javier Ibarzo, José M. Jiménez, Rosa M. Ortuño, *Tetrahedron: Asymmetry* **1993**, *4*, 669



$[\alpha]_D$= +98.1 (c 0.89, $CHCl_3$)
Source of chirality: D-Mannitol.
Absolute configuration 1*S*, 2*S*, 3*S*, 4*R*, 1'*S*

$C_{11}H_{14}O_3$
3-epoxyethyl-2-methoxycarbonylbicyclo[2.2.1.]hept-5-ene

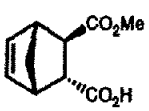
Ramon Casas, Javier Ibarzo, José M. Jiménez, Rosa M. Ortuño, *Tetrahedron: Asymmetry* **1993**, *4*, 669



$[\alpha]_D$= -108.9 (c 2.30, $CHCl_3$)
Source of chirality: D-Mannitol.
Absolute configuration 1*R*, 2*R*, 3*R*, 4*S*

$C_{10}H_{12}O_3$
3-formyl-7-methoxycarbonylbicyclo[2.2.1]hept-5-ene

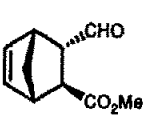
Ramon Casas, Javier Ibarzo, José M. Jiménez, Rosa M. Ortuño, *Tetrahedron: Asymmetry* **1993**, *4*, 669



$[\alpha]_D$= -164.8 (c 0.82, MeOH)
Source of chirality: D-Mannitol.
Absolute configuration 1*R*, 2*R*, 3*R*, 4*S*

$C_{10}H_{12}O_4$
3-carboxy-2-methoxycarbonylbicyclo[2.2.1]hept-5-ene

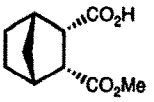
Ramon Casas, Javier Ibarzo, José M. Jiménez, Rosa M. Ortuño, *Tetrahedron: Asymmetry* **1993**, *4*, 669



$[\alpha]_D$= +110.8 (c 2.65, $CHCl_3$)
Source of chirality: D-Mannitol.
Absolute configuration 1*S*, 2*S*, 3*S*, 4*R*

$C_{10}H_{12}O_3$
3-formyl-2-methoxycarbonylbicyclo[2.2.1.]hept-5-ene

Ramon Casas, Javier Ibarzo, José M. Jiménez, Rosa M. Ortuño, *Tetrahedron: Asymmetry* **1993**, *4*, 669



$[\alpha]_D$= -19.4 (c 1.44, MeOH)

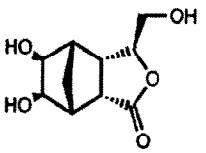
Source of chirality: D-Mannitol.

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

$C_{10}H_{14}O_4$

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

Ramon Casas, Javier Ibarzo, José M. Jiménez, Rosa M. Ortuño, *Tetrahedron: Asymmetry* **1993**, *4*, 669



$[\alpha]_D$= -40.0 (c= 1.4, $CHCl_3$)

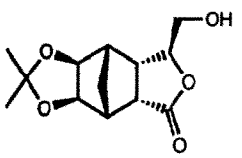
Source of chirality: D-Mannitol.

Absolute configuration 1*R*, 2*R*, 5*S*, 6*S*, 7*S*, 8*S*, 9*R*

$C_{10}H_{14}O_5$

8,9-Dihydroxy-5-hydroxymethyl-4-oxatricyclo[5.2.1.$0^{2,6}$]
decan-3-one

Ramon Casas, Javier Ibarzo, José M. Jiménez, Rosa M. Ortuño, *Tetrahedron: Asymmetry* **1993**, *4*, 669



$[\alpha]_D$= -40.0 (c= 1.15, $CHCl_3$)

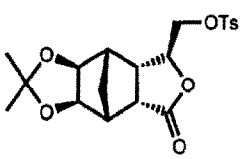
Source of chirality: D-Mannitol.

Absolute configuration 1*R*, 2*R*, 5*S*, 6*S*, 7*S*, 8*S*, 9*R*

$C_{13}H_{18}O_5$

5-Hydroxymethyl-8,9-isopropylidenedioxy-4-oxatricyclo[5.2.1.$0^{2,6}$]
decan-3-one

Ramon Casas, Javier Ibarzo, José M. Jiménez, Rosa M. Ortuño, *Tetrahedron: Asymmetry* **1993**, *4*, 669



$[\alpha]_D$= -10.6 (c= 1, $CHCl_3$)

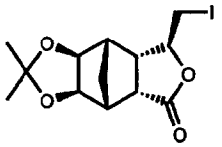
Source of chirality: D-Mannitol.

Absolute configuration 1*R*, 2*R*, 5*S*, 6*S*, 7*S*, 8*S*, 9*R*

$C_{20}H_{24}O_7S$

8,9-Isopropylidenedioxy-5-*p*-toluenesulfonyloxymethyl-4-oxatricyclo[5.2.1.$0^{2,6}$]
decan-3-one

Ramon Casas, Javier Ibarzo, José M. Jiménez, Rosa M. Ortuño, *Tetrahedron: Asymmetry* **1993**, *4*, 669



$[\alpha]_D$= -29.9 (c= 1.05, $CHCl_3$)

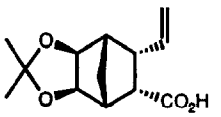
Source of chirality: D-Mannitol.

Absolute configuration 1*R*, 2*R*, 5*S*, 6*S*, 7*S*, 8*S*, 9*R*

$C_{13}H_{17}O_4I$

5-Iodomethyl-8,9-isopropylidenedioxy-4-oxatricyclo[5.2.1.$0^{2,6}$] decan-3-one

Ramon Casas, Javier Ibarzo, José M. Jiménez, Rosa M. Ortuño, *Tetrahedron: Asymmetry* **1993**, *4*, 669



$[\alpha]_D$= -22.9 (c= 1.4, $CHCl_3$)

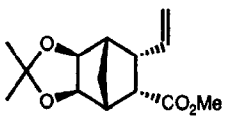
Source of chirality: D-Mannitol.

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

$C_{13}H_{18}O_4$

2-Carboxy-5,6-isopropylidenedioxy-3-vinylbicyclo[2.2.1] heptane

Ramon Casas, Javier Ibarzo, José M. Jiménez, Rosa M. Ortuño, *Tetrahedron: Asymmetry* **1993**, *4*, 669



$[\alpha]_D$= -68.7 (c= 0.65, $CHCl_3$)

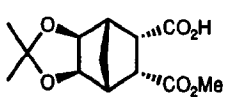
Source of chirality: D-Mannitol.

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

$C_{14}H_{20}O_4$

5,6-Isopropylidenedioxy-2-methoxycarbonyl-3-vinylbicyclo[2.2.1] heptane

Ramon Casas, Javier Ibarzo, José M. Jiménez, Rosa M. Ortuño, *Tetrahedron: Asymmetry* **1993**, *4*, 669



$[\alpha]_D$= -5.4 (c= 1.11, $CHCl_3$)

Source of chirality: D-Mannitol.

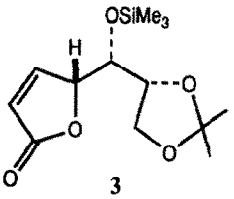
Absolute configuration 1*R*, 2*S*, 3*S*, 4*S*, 5*S*, 6*R*

$C_{13}H_{18}O_6$

3-Carboxy-5,6-isopropylidenedioxy-2-methoxycarbonylbicyclo[2.2.1] heptane

Giovanni Casiraghi, Luigi Pinna, Gloria Rassu, Pietro Spanu, and Fausta Ulgheri

Tetrahedron: Asymmetry **1993,** *4*, 681



3

E.e. = ca. 100%

$[\alpha]_D^{20}$ = +106.2 (*c* 4.1, $CHCl_3$); colorless oil

Source of chirality: 2,3-*O*-isopropylidene-D-glyceraldehyde and asymmetric synthesis

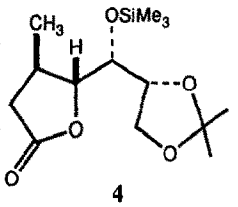
Absolute configuration: 4*R*, 5*S*, 6*R*; by X-ray analysis of fully deprotected derivative

$C_{13}H_{22}O_5Si$

5-*O*-Trimethylsilyl-6,7-*O*-isopropylidene-2,3-dideoxy-hept-2-enono-1,4-lactone

Giovanni Casiraghi, Luigi Pinna, Gloria Rassu, Pietro Spanu, and Fausta Ulgheri

Tetrahedron: Asymmetry **1993,** *4*, 681



4

E.e. = ca. 100%

$[\alpha]_D^{22}$ = -13.4 (*c* 3.1, $CHCl_3$); colorless oil

Source of chirality: 2,3-*O*-isopropylidene-D-glyceraldehyde and asymmetric synthesis

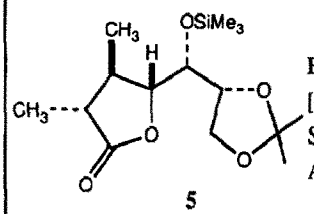
Absolute configuration: 3*R*, 4*R*, 5*S*, 6*R*

$C_{14}H_{26}O_5Si$

3-*C*-Methyl-5-*O*-Trimethylsilyl-6,7-*O*-isopropylidene-2,3-dideoxy-heptono-1,4-lactone

Giovanni Casiraghi, Luigi Pinna, Gloria Rassu, Pietro Spanu, and Fausta Ulgheri

Tetrahedron: Asymmetry **1993,** *4*, 681



5

E.e. = ca. 100%

$[\alpha]_D^{24}$ = -1104.8 (*c* 0.52, $CHCl_3$); colorless oil

Source of chirality: 2,3-*O*-isopropylidene-D-glyceraldehyde and asymmetric synthesis

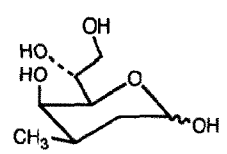
Absolute configuration: 2*R*, 3*R*, 4*R*; 5*S*, 6*R*

$C_{15}H_{28}O_5Si$

2,3-Di-*C*-methyl-5-*O*-trimethylsilyl-6,7-*O*-isopropylidene-2,3-dideoxy-heptono-1,4-lactone

Giovanni Casiraghi, Luigi Pinna, Gloria Rassu, Pietro Spanu, and Fausta Ulgheri

Tetrahedron: Asymmetry **1993,** *4*, 681



6

E.e. = ca. 100%

$[\alpha]_D^{21}$ = +42.1 (*c* 0.29, CH_3OH); colorless foam

Source of chirality: 2,3-*O*-isopropylidene-D-glyceraldehyde and asymmetric synthesis

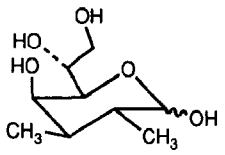
Absolute configuration: D-*manno*

$C_8H_{16}O_5$

2,3-Dideoxy-3-*C*-methylheptose

Giovanni Casiraghi, Luigi Pinna, Gloria Rassu, Pietro Spanu, and Fausta Ulgheri

Tetrahedron: Asymmetry **1993,** *4*, 681



7

E.e. = ca. 100%

$[\alpha]_D^{20}$ = -2.2 (*c* 0.59, CH_3OH); colorless foam

Source of chirality: 2,3-*O*-isopropylidene-D-glyceraldehyde and asymmetric synthesis

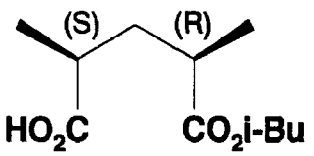
Absolute configuration: D-*glycero*-D-*galacto*

$C_9H_{18}O_5$

2,3-Dideoxy-2,3-di-*C*-methylheptose

R. Ozegowski, A. Kunath and H. Schick

Tetrahedron: Asymmetry **1993,** *4*, 695



E.e. = 90 % (by HPLC of the (*R*)-1-phenylethylamides on silica gel)

$[\alpha]_D^{20}$ = -2 (c = 2, $CHCl_3$)

Source of chirality: enzyme-catalyzed alcoholysis of a prochiral anhydride

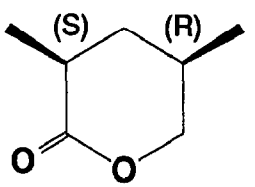
Absolute configuration: 2*R*,4*S* (assigned by chemical transformation into a lactone of known configuration)

$C_{11}H_{20}O_4$ 1-(2-Methylpropyl) 5-hydrogen 2,4-dimethylpentanedioate

---

R. Ozegowski, A. Kunath and H. Schick

Tetrahedron: Asymmetry **1993,** *4*, 695



E.e. = >99 % (by HPLC on Chiralpak AD)

$[\alpha]_D^{20}$ = +41.9 (c = 0.93, $CHCl_3$)

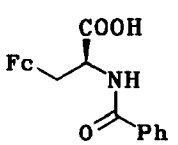
Source of chirality: enzyme-catalyzed alcoholysis of a prochiral anhydride

Absolute configuration: 2*S*,4*R* [Lit: $[\alpha]_D^{20}$ = +39.1 (c = 10, $CHCl_3$)]: Jakovac, I. J.; Ng, G.; Lok, K. P.; Jones, J. B. *J. Chem. Soc. Chem. Commun.* **1980,** 515-516

$C_7H_{12}O_2$ 2,4-Dimethyl-5-pentanolide

H. Brunner, W. König, and B. Nuber

Tetrahedron: Asymmetry **1993,** *4*, 699



$C_{20}H_{19}FeNO_3$ (N-benzoylferrocenylalanine)

E.e. = 100 % [by enantioselective catalysis and fractional crystallization]

$[\alpha]^{20}$ -6.45 (c 2.1, MeOH)

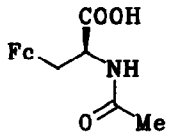
mp 186-188°C (ethanol/water)

Source of Chirality: Enantioselective Rh-catalyst

Absolute configuration: S (X-ray analysis)

H. Brunner, W. König, and B. Nuber

Tetrahedron: Asymmetry **1993**, *4*, 699



E.e. = 100 % [by enantioselective catalysis and fractional crystallization]

$[\alpha]^{20}$ +22.2 (c 0.5, MeOH)

mp 189-190°C (water/ethanol)

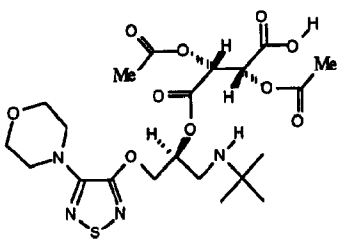
Source of Chirality: Enantioselective Rh-catalyst

Absolute configuration: S

$C_{15}H_{17}FeNO_3$ (N-acetylferrocenylalanine)

J. Kivikoski, J. Vepsäläinen, R. Suontamo, E. Pohjala and R. Laatikainen

Tetrahedron: Asymmetry **1993**, *4*, 709



$C_{21}H_{32}N_4O_{10}S$

E.e. = 99.5% determined by HPLC

$[\alpha]_{405}^{25}$ = +15.4 (c, 0.05 in HCl)

Source of chirality: Anomalous dispersion of X-rays and (*R,R*)-tartaric acid

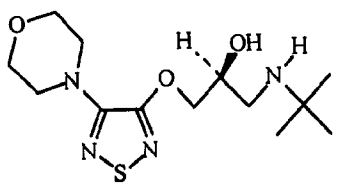
Absolute configuration *S*, 2*R*, 3*R*

(*S*)-[(1,1-dimethylethyl)amino]methyl-2-[[4-(4-morpholinyl)-1,2,5-thiadiazol-3-yl]oxy]ethyl hydrogen (2*R*,3*R*)-2,3-bis(acetoxy) butanedioate

---

J. Kivikoski, J. Vepsäläinen, R. Suontamo, E. Pohjala and R. Laatikainen

Tetrahedron: Asymmetry **1993**, *4*, 709



$\cdot 1/2H_2O$

$C_{13}H_{24}N_4O_3S \cdot 1/2H_2O$

E.e. = 100% determined by HPLC

$[\alpha]_{405}^{25}$ = -16.0 (c, 0.05 in HCl)

Source of chirality: Anomalous dispersion of X-rays

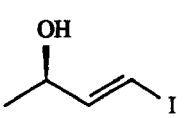
Absolute configuration *S*

(*S*)-1-[(1,1-dimethylethyl)amino]-3-[[4-(4-morpholinyl)-1,2,5-thiadiazol-3-yl]oxy]-2-propanol hemihydrate

---

M. Bänziger, J.F. McGarrity, G.J. Griffiths

Tetrahedron: Asymmetry **1993**, *4*, 723



C_4H_7IO

(2R,3E)-4-iodobut-3-en-2-ol

$[\alpha]^{23}_D$ +28.4 (c=1 in $CHCl_3$)

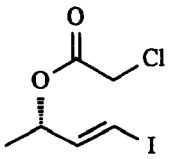
ee 98 % (GC, Lipodex D)

source of chirality: enzymatic hydrolysis

Absolute configuration 2R

M. Bänziger, J.F. McGarrity, G.J. Griffiths

Tetrahedron: Asymmetry **1993**, *4*, 723



$C_6H_8ClIO_2$

(E,S)-iodobut-3-en-2-yl chloroacetate

$[\alpha]^{23}_D$ -144.6 (c=1 in $CHCl_3$)

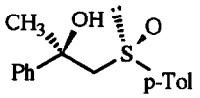
ee > 98 % (GC, Lipodex D)

source of chirality: enzymatic hydrolysis

Absolute configuration 2S

M. Carmen Carreño*, José L. García Ruano*, M. Carmen Maestro and Luisa M. Martín Cabrejas.

Tetrahedron: Asymmetry **1993**, *4*, 727



$C_{16}H_{18}O_2S$

2-phenyl-1-*p*-tolylsulfinylpropan-2-ol

D.e. >98% (nmr)

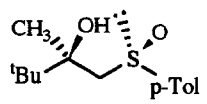
$[\alpha]_D^{25}$ +150 (*c* 2, $CHCl_3$)

Source of chirality: Asymmetric $AlMe_3/ZnCl_2$ addition to β-ketosulfoxide

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

M. Carmen Carreño*, José L. García Ruano*, M. Carmen Maestro and Luisa M. Martín Cabrejas.

Tetrahedron: Asymmetry **1993**, *4*, 727



$C_{14}H_{22}O_2S$

2,3,3-trimethyl-1-*p*-tolylsulfinylbutan-2-ol

D.e. >98% (nmr)

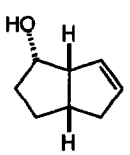
$[\alpha]_D^{25}$ +213.6 (*c* 1.2, $CHCl_3$)

Source of chirality: Asymmetric $AlMe_3/ZnCl_2$ addition to β-ketosulfoxide

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

E.Marotta, E.Rastelli, P.Righi, and G.Rosini*

Tetrahedron: Asymmetry **1993**, *4*, 735



bp_{30mbar} 160-165°C (kugelrohr)

$[\alpha]_D^{25}$ –139.14 (c 1.15; chloroform)

$C_8H_{12}O$

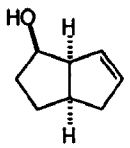
(1*S*,2*S*,5*S*)-(–)-*endo*-Bicyclo[3.3.0]oct-7-en-2-ol

Absolute configuration assigned according to lit.

(cf. lit. Kuritani, H.; Takaoka, Y.; Shingu, K. *J. Org. Chem.* **1979**, *44*, 452.)

E.Marotta, E.Rastelli, P.Righi, and G.Rosini*

Tetrahedron: Asymmetry **1993**, *4*, 735



bp_{30mbar} 160-165°C (kugelrohr)

$[\alpha]_D^{25}$ +138.26 (c 1.14; chloroform)

$C_8H_{12}O$

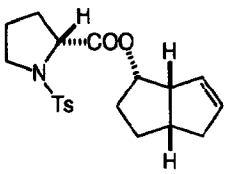
(1*R*,2*R*,5*R*)-(+)-*endo*-Bicyclo[3.3.0]oct-7-en-2-ol

Absolute configuration assigned according to lit.

(cf. lit. Kuritani, H.; Takaoka, Y.; Shingu, K. *J. Org. Chem.* **1979**, *44*, 452.)

E.Marotta, E.Rastelli, P.Righi, and G.Rosini*

Tetrahedron: Asymmetry **1993**, *4*, 735



mp 36-38°C

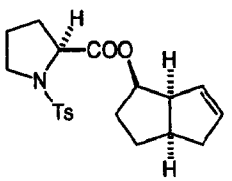
$[\alpha]_D^{25}$ –28.43 (c 1.44; chloroform)

$C_{20}H_{25}NO_4S$

(1*S*,2*S*,5*S*,2'*R*)-(–)-*endo*-Bicyclo[3.3.0]oct-7-en-2-ol 1-(4-Toluene-sulphonyl)-2-pyrrolidylcarboxylate

E.Marotta, E.Rastelli, P.Righi, and G.Rosini*

Tetrahedron: Asymmetry **1993**, *4*, 735



mp 36-38°C

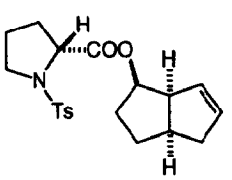
$[\alpha]_D^{25}$ +28.58 (c 1.44; chloroform)

$C_{20}H_{25}NO_4S$

(1*R*,2*R*,5*R*,2'*S*)-(+)-*endo*-Bicyclo[3.3.0]oct-7-en-2-ol 1-(4-Toluene-sulphonyl)-2-pyrrolidylcarboxylate

E.Marotta, E.Rastelli, P.Righi, and G.Rosini*

Tetrahedron: Asymmetry **1993**, *4*, 735



mp 102-103°C

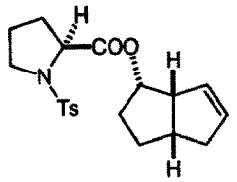
$[\alpha]_D^{25}$ +177.45 (c 1.46; chloroform)

$C_{20}H_{25}NO_4S$

(1*R*,2*R*,5*R*,2'*R*)-(+)-*endo*-Bicyclo[3.3.0]oct-7-en-2-ol 1-(4-Toluene-sulphonyl)-2-pyrrolidylcarboxylate

E.Marotta, E.Rastelli, P.Righi, and G.Rosini*

Tetrahedron: Asymmetry **1993**, *4*, 735



mp 102-104°C

$[\alpha]_D^{25}$ –176.59 (c 1.45; chloroform)

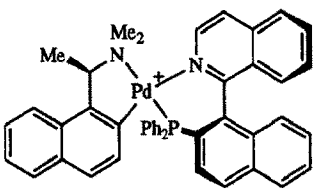
$C_{20}H_{25}NO_4S$

(1*S*,2*S*,5*S*,2'*S*)-(–)-*endo*-Bicyclo[3.3.0]oct-7-en-2-ol 1-(4-Toluene-sulphonyl)-2-pyrrolidylcarboxylate

---

Nathaniel W. Alcock, John M. Brown and David I. Hulmes

Tetrahedron: Asymmetry **1993**, *4*, 743



PF_6^-

$C_{45}H_{38}N_2P_2PdF_6$

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

$[\alpha]_D^{23}$ = +227.0 (c = 1, acetone),
+247.0° (c = 1, $CHCl_3$)

Source of chirality: (R)-(+)-1-(1-naphthyl)ethylamine

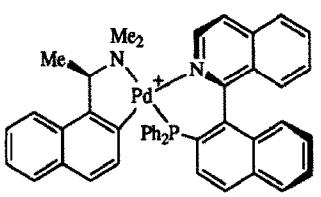
Absolute configuration: R,R
(assigned by X-ray)

cis-[Dimethyl(1-(1-naphthyl)ethyl)aminato-C^2,N]-[1-(2-diphenylphosphino-1-naphthyl)isoquinoline]palladium (II) hexafluorophosphate

---

Nathaniel W. Alcock, John M. Brown and David I. Hulmes

Tetrahedron: Asymmetry **1993**, *4*, 743



PF_6^-

$C_{45}H_{38}N_2P_2PdF_6$

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

$[\alpha]_D^{21}$ = -245.3 (c = 1, acetone)

Source of chirality: (R)-(+)-1-(1-naphthyl)ethylamine

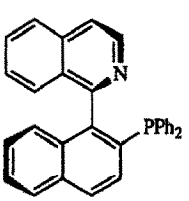
Absolute configuration: R,S
(assigned by X-ray of R,R diastereomer)

cis-[Dimethyl(1-(1-naphthyl)ethyl)aminato-C^2,N]-[1-(2-diphenylphosphino-1-naphthyl)isoquinoline]palladium (II) hexafluorophosphate

---

Nathaniel W. Alcock, John M. Brown and David I. Hulmes

Tetrahedron: Asymmetry **1993**, *4*, 743



$C_{31}H_{22}NP$

1-(2-Diphenylphosphino-1-naphthyl)isoquinoline

E.e. = >99% (by nmr of (R)-dimethyl(1-(1-naphthyl)ethyl)amine Pd complex)

$[\alpha]_D^{22}$ = +153.2 (c = 1, $CHCl_3$)

Source of chirality: Resolution using Pd complex of (R)-1-(1-naphthyl)ethylamine

Absolute configuration: R
(assigned by X-ray of (R)-dimethyl(1-(1-naphthyl)ethyl)amine Pd complex)