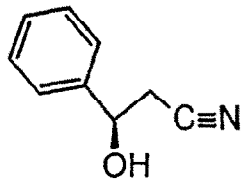
K. Soai, Y. Hirose and S. Sakata

Tetrahedron: Asymmetry **1992**, *3*, 677



E.e. = 93% [by hplc using a chiral column]

$[\alpha]^{25}_{D}$ -55.7 (c 1.05, EtOH)

Source of chirality: asymm. synth.

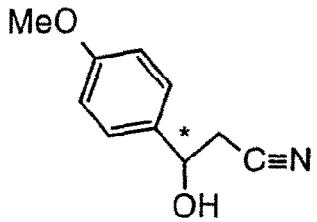
Absolute configuration: S

C_9H_9NO

(S)-(-)-3-hydroxy-3-phenylpropiononitrile

K. Soai, Y. Hirose and S. Sakata

Tetrahedron: Asymmetry **1992**, *3*, 677



E.e. = 88% [by hplc using a chiral column]

$[\alpha]^{25}_{D}$ -45.8 (c 1.06, EtOH)

Source of chirality: asymm. synth.

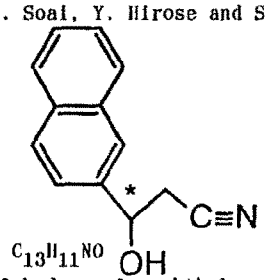
Absolute configuration: S

$C_{10}H_{12}NO_2$

3-hydroxy-3-(p-methoxy)phenylpropiononitrile

K. Soai, Y. Hirose and S. Sakata

Tetrahedron: Asymmetry **1992**, *3*, 677



E.e. = 87% [by hplc using a chiral column]

$[\alpha]^{23}_{D}$ -52.7 (c 1.04, EtOH)

Source of chirality: asymm. synth.

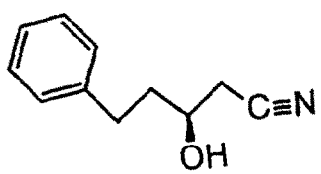
Absolute configuration: S

$C_{13}H_{11}NO$

3-hydroxy-3-naphthylpropiononitrile

K. Soai, Y. Hirose and S. Sakata

Tetrahedron: Asymmetry **1992**, *3*, 677



E.e. = 74% [by hplc using a chiral column]

$[\alpha]^{23}_{D}$ +16.3 (c 1.06, EtOH)

Source of chirality: asymm. synth.

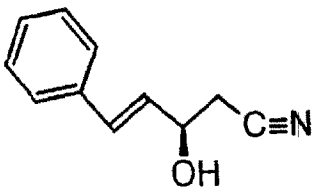
Absolute configuration: R

$C_{11}H_{13}NO$

(R)-(+)-3-hydroxy-5-phenyl-pentanenitrile

K. Soai, Y. Hirose and S. Sakata

Tetrahedron: Asymmetry **1992,** *3*, 677



E.e. = 78% [by hplc using a chiral column]

$[\alpha]^{26}_{D}$ -16.3 (c 1.03, EtOH)

Source of chirality: asymm. synth.

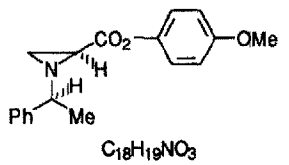
Absolute configuration: S

$C_{11}H_{11}NO$

(S)-(-)-3-hydroxy-5-phenyl-4-pentenenitrile

Seiichi Takano,* Minoru Moriya, and Kunio Ogasawara

Tetrahedron: Asymmetry **1992,** *3*, 681



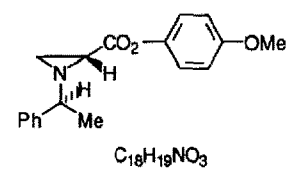
$C_{18}H_{19}NO_3$

4-methoxyphenyl (1'*S*,2*S*)-(1-phenylethyl)-aziridine-2-carboxylate

mp 78.5 - 79.0 °C
Absolute configuration 1'*S*,2*S*
$[\alpha]_D^{27}$ –88.7 (*c* 0.85, $CHCl_3$)
Source of chirality: (*S*)-1-methylbenzylamine
E. e.=>98% (by optical purity of starting (*S*)-1-methylbenzylamine)

Seiichi Takano,* Minoru Moriya, and Kunio Ogasawara

Tetrahedron: Asymmetry **1992,** *3*, 681



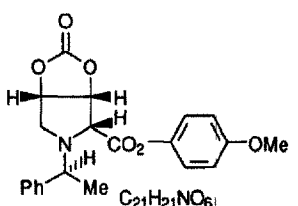
$C_{18}H_{19}NO_3$

4-methoxyphenyl (1'*S*,2*R*)-(1-phenylethyl)-aziridine-2-carboxylate

mp 91.0 - 92.0 °C
Absolute configuration 1'*S*,2*R*
$[\alpha]_D^{27}$ +121.6 (*c* 0.88, $CHCl_3$)
Source of chirality: (*S*)-1-methylbenzylamine
E. e.=>98% (by optical purity of starting (*S*)-1-methylbenzylamine)

Seiichi Takano,* Minoru Moriya, and Kunio Ogasawara

Tetrahedron: Asymmetry **1992,** *3*, 681



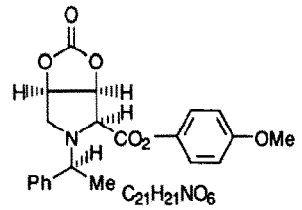
$C_{21}H_{21}NO_6$

4-methoxyphenyl (1'*S*,2*R*,3*R*,4*S*)-3,4-*O*-carbonyl-*N*-(1-phenylethyl)-3,4-dihydroxypyrrolidinecarboxylate

mp 140.0 - 141.0 °C
Absolute configuration 1'*S*,2*R*,3*R*,4*S*
$[\alpha]_D^{27}$ +52.8 (*c* 0.43, $CHCl_3$)
Source of chirality: (*S*)-1-methylbenzylamine
E. e.=>98% (by optical purity of starting (*S*)-1-methylbenzylamine)

Seiichi Takano,* Minoru Moriya, and Kunio Ogasawara

Tetrahedron: Asymmetry **1992,** *3*, 681



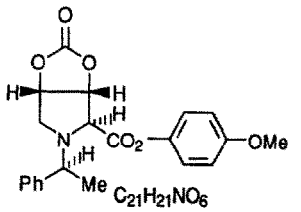
$C_{21}H_{21}NO_6$

4-methoxyphenyl (1'*S*,2*S*,3*S*,4*R*)-3,4-*O*-carbonyl-*N*-(1-phenylethyl)-3,4-dihydroxypyrrolidinecarboxylate

mp 183.5 - 185.0 °C
Absolute configuration 1'*S*,2*S*,3*S*,4*R*
$[\alpha]_D^{28}$ –239.4 (*c* 1.46, $CHCl_3$)
Source of chirality: (*S*)-1-methylbenzylamine
E. e.=>98% (by optical purity of starting (*S*)-1-methylbenzylamine)

Seiichi Takano,* Minoru Moriya, and Kunio Ogasawara

Tetrahedron: Asymmetry **1992,** *3*, 681



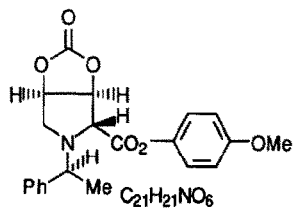
$C_{21}H_{21}NO_6$

4-methoxyphenyl (1'*S*,2*S*,3*R*,4*S*)-3,4-*O*-carbonyl-*N*-(1-phenylethyl)-3,4-dihydroxypyrrolidinecarboxylate

mp 120.5 - 121.5 °C
Absolute configuration 1'*S*,2*S*,3*R*,4*S*
$[\alpha]_D^{30}$ –128.7 (*c* 0.84, $CHCl_3$)
Source of chirality: (*S*)-1-methylbenzylamine
E. e.=>98% (by optical purity of starting (*S*)-1-methylbenzylamine)

Seiichi Takano,* Minoru Moriya, and Kunio Ogasawara

Tetrahedron: Asymmetry **1992,** *3*, 681



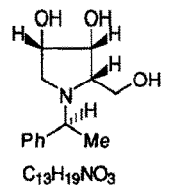
$C_{21}H_{21}NO_6$

4-methoxyphenyl (1'*S*,2*R*,3*S*,4*R*)-3,4-*O*-carbonyl-*N*-(1-phenylethyl)-3,4-dihydroxypyrrolidinecarboxylate

mp 180.0 - 181.0 °C
Absolute configuration 1'*S*,2*R*,3*S*,4*R*
$[\alpha]_D^{29}$ –4.4 (*c* 0.55, $CHCl_3$)
Source of chirality: (*S*)-1-methylbenzylamine
E. e.=>98% (by optical purity of starting (*S*)-1-methylbenzylamine)

Seiichi Takano,* Minoru Moriya, and Kunio Ogasawara

Tetrahedron: Asymmetry **1992,** *3*, 681



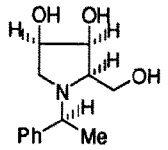
$C_{13}H_{19}NO_3$

N-[(*S*)-1-phenylethyl]-1,4-dideoxy-1,4-imino-L-lyxitol

Absolute configuration 1'*S*,2*R*,3*R*,4*S*
$[\alpha]_D^{28}$ +10.6 (*c* 1.06, MeOH)
Source of chirality: (*S*)-1-methylbenzylamine
E. e.=>98% (by optical purity of starting (*S*)-1-methylbenzylamine)

Seiichi Takano,* Minoru Moriya, and Kunio Ogasawara

Tetrahedron: Asymmetry **1992,** *3,* 681



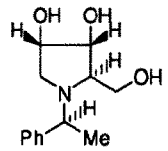
$C_{13}H_{19}NO_3$

N-[(*S*)-1-phenylethyl]-1,4-dideoxy-1,4-imino-D-lyxitol

mp 85.0 - 85.5 °C
Absolute configuration 1'*S*,2*S*,3*S*,4*R*
$[\alpha]_D^{28}$ –37.2 (*c* 0.41, MeOH)
Source of chirality: (*S*)-1-methylbenzylamine
E. e.=>98% (by optical purity of starting (*S*)-1-methylbenzylamine)

Seiichi Takano,* Minoru Moriya, and Kunio Ogasawara

Tetrahedron: Asymmetry **1992,** *3,* 681



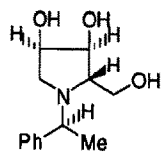
$C_{13}H_{19}NO_3$

N-[(*S*)-1-phenylethyl]-1,4-dideoxy-1,4-imino-D-ribitol

mp 120.5 - 122.0 °C
Absolute configuration 1'*S*,2*S*,3*R*,4*S*
$[\alpha]_D^{26}$ –65.5 (*c* 0.51, MeOH)
Source of chirality: (*S*)-1-methylbenzylamine
E. e.=>98% (by optical purity of starting (*S*)-1-methylbenzylamine)

Seiichi Takano,* Minoru Moriya, and Kunio Ogasawara

Tetrahedron: Asymmetry **1992,** *3,* 681



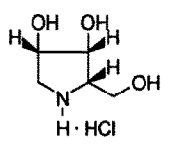
$C_{13}H_{19}NO_3$

N-[(*S*)-1-phenylethyl]-1,4-dideoxy-1,4-imino-L-ribitol

Absolute configuration 1'*S*,2*R*,3*S*,4*R*
$[\alpha]_D^{27}$ –8.9 (*c* 0.80, MeOH)
Source of chirality: (*S*)-1-methylbenzylamine
E. e.=>98% (by optical purity of starting (*S*)-1-methylbenzylamine)

Seiichi Takano,* Minoru Moriya, and Kunio Ogasawara

Tetrahedron: Asymmetry **1992,** *3,* 681



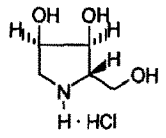
$C_5H_{12}ClNO_3$

1,4-dideoxy-1,4-imino-L-lyxitol hydrochloride

mp 162.5 - 163.5 °C
Absolute configuration 2*R*,3*R*,4*S*
$[\alpha]_D^{29}$ –20.3 (*c* 0.28, H_2O)
Source of chirality: (*S*)-1-methylbenzylamine
E. e.=>98% (by comparison to the reported value)

Seiichi Takano,* Minoru Moriya, and Kunio Ogasawara

Tetrahedron: Asymmetry **1992,** *3*, 681



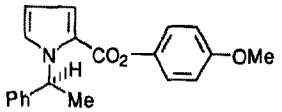
$C_5H_{12}ClNO_3$

1,4-dideoxy-1,4-imino-
L-ribitol hydrochloride

mp 132.0 - 133.0 °C
Absolute configuration 2*R*,3*S*,4*R*
$[\alpha]_D^{29}$ –59.5 (*c* 0.76, H_2O)
Source of chirality: (*S*)-1-methylbenzylamine
E. e.=>98% (by comparison to the reported value)

Seiichi Takano,* Minoru Moriya, and Kunio Ogasawara

Tetrahedron: Asymmetry **1992,** *3*, 681



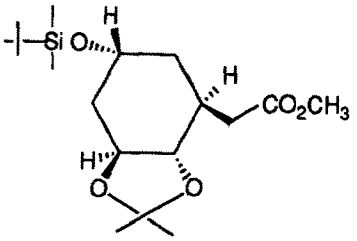
$C_{21}H_{19}NO_2$

4-methoxyphenyl 1-[(*S*)-1-phenylethyl]-
pyrrole-2-carboxylate

mp 112.0 - 112.5 °C
Absolute configuration *S*
$[\alpha]_D^{28}$ –149.2 (*c* 0.72, $CHCl_3$)
E. e.=>98% (by optical purity of starting (*S*)-1-methylbenzylamine)

J. Marco-Contelles, B. Sánchez, and C. Pozuelo

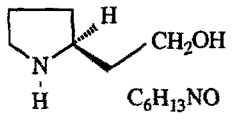
Tetrahedron: Asymmetry **1992,** *3*, 689



E.e. =100%
$[\alpha]_D^{25}$ + 4 (*c* 3.7, $CHCl_3$)
Source of chirality: synthesis from D-glucose
Absolute configuration 1*S*, 2*S*, 3*S*, 5*R*

A. Fleurant, J.P. Célérier, and G. Lhommet

Tetrahedron: Asymmetry **1992,** *3*, 695



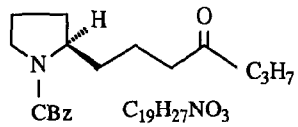
$C_6H_{13}NO$

(S)-2-(2-Hydroxyethyl)-pyrrolidine

E.e.>98%, $[\alpha]^{22}_D$=-8.3 (c=1.94, EtOH)
Source of chirality: (S)-pyroglutamic acid
(U.C.I.B. France)
Absolute configuration: 2(S)

Tetrahedron: Asymmetry **1992,** *3*, 695

A. Fleurant, J.P. Célérier, and G. Lhommet



$C_{19}H_{27}NO_3$

(2R)-1-Benzyloxycarbonyl-2-(4-oxoheptyl)-pyrrolidine

E.e.>98%, $[\alpha]^{21}_D$=-47.2 (c=2, EtOH)

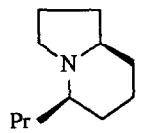
Source of chirality: (S)-pyroglutamic acid (U.C.I.B. France)

Absolute configuration: 2(R)

(Assigned by corrrelation with the final product)

Tetrahedron: Asymmetry **1992,** *3*, 695

A. Fleurant, J.P. Célérier, and G. Lhommet



$C_{11}H_{21}N$

(5R,9R)-5-Propyl-octahydroindolizine
(-) Gephyrotoxin 167B

E.e.>98%, $[\alpha]^{20}_D$=-115 (c=1.17, CH_2Cl_2)

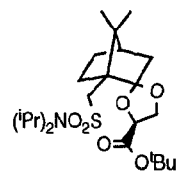
Source of chirality: (S)-pyroglutamic acid (U.C.I.B. France)

Absolute configuration: 5(R), 9(R)

(Assigned by correlation of specific rotation with literature)

Kuang-Fu Yen and Biing-Jiun Uang*

Tetrahedron: Asymmetry **1992,** *3*, 697



$C_{23}H_{41}NO_6S$

$[\alpha]_{D^{23}}$ -7.12 (*c* 6.6, $CHCl_3$)

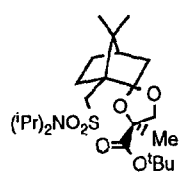
Sourse of chirality : (D)-(1R)-N,N-diisopropyl-10-camphorsulfonamide

Absolute configuration: 1R,2S,4'S

2-(7,7-dimethyl-10-(N,N-diisopropylsulfonamido)-bicyclo[2.2.1]heptane)-spiro-2'-(4'-carbo-*t*-butoxy-1',3'-dioxolane)

Kuang-Fu Yen and Biing-Jiun Uang*

Tetrahedron: Asymmetry **1992,** *3*, 697



$C_{24}H_{43}NO_6S$

$[\alpha]_{D^{23}}$ -1.68 (*c* 1.1, $CHCl_3$)

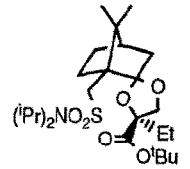
Sourse of chirality : (D)-(1R)-N,N-diisopropyl-10-camphorsulfonamide

Absolute configuration: 1R,2S,4'S

2-(7,7-dimethyl-10-(N,N-diisopropylsulfonamido)-bicyclo[2.2.1]-heptane)-spiro-2'-(4'-carbo-*t*-butoxy-4'-methyl-1',3'-dioxolane)

Kuang-Fu Yen and Biing-Jiun Uang*

Tetrahedron: Asymmetry **1992,** *3*, 697



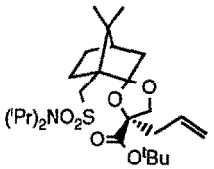
$C_{25}H_{45}NO_6S$

$[\alpha]_D^{23}$ -11.6 (*c* 1.1, $CHCl_3$)
Sourse of chirality : (D)-(1R)-N,N-diisopropyl-10-camphorsulfonamide
Absolute configuration:1R,2S,4'S

2-(7,7-dimethyl-10-(N,N-diisopropylsulfonamido)-bicyclo[2.2.1]-heptane)-spiro-2'-(4'-carbo-*t*-butoxy-4'-ethyl-1',3'-dioxolane)

Kuang-Fu Yen and Biing-Jiun Uang*

Tetrahedron: Asymmetry **1992,** *3*, 697



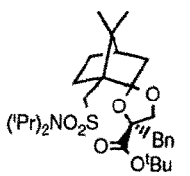
$C_{26}H_{45}NO_6S$

$[\alpha]_D^{23}$ -19.9 (*c* 1.3, $CHCl_3$)
Sourse of chirality : (D)-(1R)-N,N-diisopropyl-10-camphorsulfonamide
Absolute configuration:1R,2S,4'S

2-(7,7-dimethyl-10-(N,N-diisopropylsulfonamido)-bicyclo[2.2.1]-heptane)-spiro-2'-(4'-carbo-*t*-butoxy-4'-(2"-propenyl)-1',3'-dioxolane)

Kuang-Fu Yen and Biing-Jiun Uang*

Tetrahedron: Asymmetry **1992,** *3*, 697



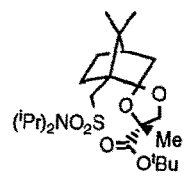
$C_{30}H_{47}NO_6S$

$[\alpha]_D^{23}$ -8.97 (*c* 1.1, $CHCl_3$)
Sourse of chirality : (D)-(1R)-N,N-diisopropyl-10-camphorsulfonamide
Absolute configuration:1R,2S,4'S

2-(7,7-dimethyl-10-(N,N-diisopropylsulfonamido)-bicyclo[2.2.1]-heptane)-spiro-2'-(4'-carbo-*t*-butoxy-4'-benzyl-1',3'-dioxolane)

Kuang-Fu Yen and Biing-Jiun Uang*

Tetrahedron: Asymmetry **1992,** *3*, 697



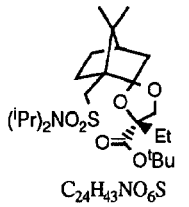
$C_{24}H_{43}NO_6S$

$[\alpha]_D^{23}$ -15.8 (*c* 8.3, $CHCl_3$)
Sourse of chirality : (D)-(1R)-N,N-diisopropyl-10-camphorsulfonamide
Absolute configuration:1R,2S,4'R

2-(7,7-dimethyl-10-(N,N-diisopropylsulfonamido)-bicyclo[2.2.1]-heptane)-spiro-2'-(4'-carbo-*t*-butoxy-4'-methyl-1',3'-dioxolane)

Kuang-Fu Yen and Biing-Jiun Uang*

Tetrahedron: Asymmetry **1992,** *3*, 697



$C_{24}H_{43}NO_6S$

$[\alpha]_D^{23}$ -4.06 (*c* 5.0, $CHCl_3$)

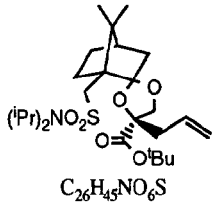
Sourse of chirality : (D)-(1R)-N,N-diisopropyl-10-camphorsulfonamide

Absolute configuration:1R,2S,4'R

2-(7,7-dimethyl-10-(N,N-diisopropylsulfonamido)-bicyclo[2.2.1]-heptane)-spiro-2'-(4'-carbo-*t*-butoxy-4'-ethyl-1',3'-dioxolane)

Kuang-Fu Yen and Biing-Jiun Uang*

Tetrahedron: Asymmetry **1992,** *3*, 697



$C_{26}H_{45}NO_6S$

$[\alpha]_D^{23}$ 3.19 (*c* 6.2, $CHCl_3$)

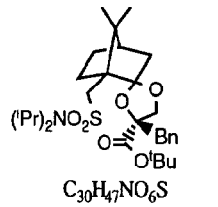
Sourse of chirality : (D)-(1R)-N,N-diisopropyl-10-camphorsulfonamide

Absolute configuration:1R,2S,4'R

2-(7,7-dimethyl-10-(N,N-diisopropylsulfonamido)-bicyclo[2.2.1]-heptane)-spiro-2'-(4'-carbo-*t*-butoxy-4'-(2"-propenyl)-1',3'-dioxolane)

Kuang-Fu Yen and Biing-Jiun Uang*

Tetrahedron: Asymmetry **1992,** *3*, 697



$C_{30}H_{47}NO_6S$

$[\alpha]_D^{23}$ 9.26 (*c* 4.1, $CHCl_3$)

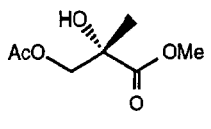
Sourse of chirality : (D)-(1R)-N,N-diisopropyl-10-camphorsulfonamide

Absolute configuration:1R,2S,4'R

2-(7,7-dimethyl-10-(N,N-diisopropylsulfonamido)-bicyclo[2.2.1]-heptane)-spiro-2'-(4'-carbo-*t*-butoxy-4'-benzyl-1',3'-dioxolane)

Kuang-Fu Yen and Biing-Jiun Uang*

Tetrahedron: Asymmetry **1992,** *3*, 697



$C_7H_{12}O_5$

$[\alpha]_D^{23}$ 9.3 (*c* 0.63, EtOH)

$[\alpha]_D^{23}$ 23.4 (*c* 0.78, $CDCl_3$)

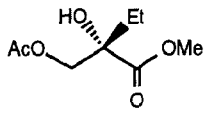
Sourse of chirality : (D)-(1R)-N,N-diisopropyl-10-camphorsulfonamide

Absolute configuration:2S

methyl 3-O-acetyl-2,3-dihydroxy-2-methylpropanoate

Kuang-Fu Yen and Biing-Jiun Uang*

Tetrahedron: Asymmetry **1992,** *3*, 697



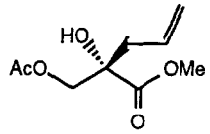
$C_8H_{14}O_5$

$[\alpha]_D^{23}$ 9.04 (*c* 3.0, $CHCl_3$)
Sourse of chirality : (D)-(1R)-N,N-diisopropyl-10-camphorsulfonamide
Absolute configuration:2S

methyl 3-O-acetyl-2,3-dihydroxy-2-ethylpropanoate

Kuang-Fu Yen and Biing-Jiun Uang*

Tetrahedron: Asymmetry **1992,** *3*, 697



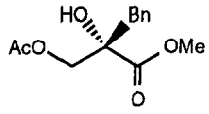
$C_8H_{14}O_5$

$[\alpha]_D^{23}$ -9.64 (*c* 2.0, $CHCl_3$)
Sourse of chirality : (D)-(1R)-N,N-diisopropyl-10-camphorsulfonamide
Absolute configuration:2S

methyl 3-O-acetyl-2,3-dihydroxy-2-(2-propenyl)propanoate

Kuang-Fu Yen and Biing-Jiun Uang*

Tetrahedron: Asymmetry **1992,** *3*, 697



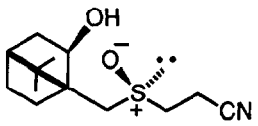
$C_8H_{14}O_5$

$[\alpha]_D^{23}$ +11.5 (*c* 2.0, $CHCl_3$)
Sourse of chirality : (D)-(1R)-N,N-diisopropyl-10-camphorsulfonamide
Absolute configuration:2S

methyl 3-O-acetyl-2,3-dihydroxy-2-benzylpropanoate

M.C.Aversa, P.Bonaccorsi, P.Giannetto, S.M.A. Jafari, and D.N.Jones

Tetrahedron: Asymmetry **1992,** *3*, 701

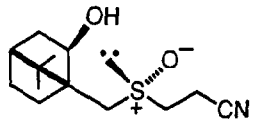


$C_{13}H_{21}NO_2S$
(1S, S_S)-10-(2-cyanoethylsulph.nyl)isoborneol

$[a]_D$ = -46 (c, 0.012, $CHCl_3$)
Source of chirality: (1S)-d-10-mercaptoisoborneol
Absolute configuration 1S, 2R, 4R, S_S

M.C.Aversa, P.Bonaccorsi, P.Giannetto, S.M.A. Jafari, and D.N.Jones

Tetrahedron: Asymmetry **1992,** *3*, 701



$[\alpha]_D$ = -53 (c, 0.1, $CHCl_3$)

Source of chirality: (1S)-d-10-mercaptoisoborneol

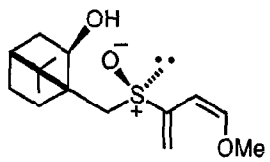
Absolute configuration 1S, 2R, 4R, R_S

$C_{13}H_{21}NO_2S$

(1S, R_S)-10-(2-cyanoethylsulphinyl)isoborneol

M.C.Aversa, P.Bonaccorsi, P.Giannetto, S.M.A. Jafari, and D.N.Jones

Tetrahedron: Asymmetry **1992,** *3*, 701



$[\alpha]_D$ = +78 (c, 0.07, $CHCl_3$); m.p. 95-97 °C

Source of chirality: (1S)-d-10-mercaptoisoborneol

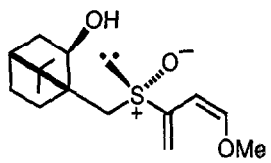
Absolute configuration 1S, 2R, 4R, R_S

$C_{15}H_{24}O_3S$

(R_S,Z)-3-[(1S)-isobornyl-10-sulphinyl]-1-methoxy-1,3-butadiene

M.C.Aversa, P.Bonaccorsi, P.Giannetto, S.M.A. Jafari, and D.N.Jones

Tetrahedron: Asymmetry **1992,** *3*, 701



$[\alpha]_D$ = -34 (c, 0.004, $CHCl_3$)

Source of chirality: (1S)-d-10-mercaptoisoborneol

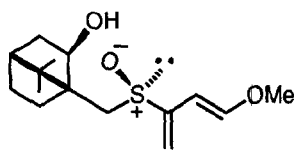
Absolute configuration 1S, 2R, 4R, S_S

$C_{15}H_{24}O_3S$

(S_S,Z)-3-[(1S)-isobornyl-10-sulphinyl]-1-methoxy-1,3-butadiene

M.C.Aversa, P.Bonaccorsi, P.Giannetto, S.M.A. Jafari, and D.N.Jones

Tetrahedron: Asymmetry **1992,** *3*, 701



$[\alpha]_D$ = +39 (c, 0.002, $CHCl_3$)

Source of chirality: (1S)-d-10-mercaptoisoborneol

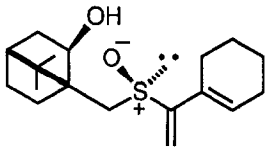
Absolute configuration 1S, 2R, 4R, R_S

$C_{15}H_{24}O_3S$

(R_S,E)-3-[(1S)-isobornyl-10-sulphinyl]-1-methoxy-1,3-butadiene

M.C.Aversa, P.Bonaccorsi, P.Giannetto, S.M.A. Jafari, and D.N.Jones

Tetrahedron: Asymmetry **1992,** *3*, 701



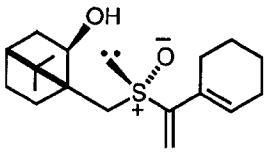
$[\alpha]_D$ = +44.3 (c, 0.09, $CHCl_3$); m.p.110 °C
Source of chirality: (1S)-d-10-mercaptoisoborneol
Absolute configuration 1S, 2R, 4R, R_S

$C_{18}H_{28}O_2S$

(R_S)-1-[1-((1S)-isobornyl-10-sulphinyl)vinyl]cyclohexene

M.C.Aversa, P.Bonaccorsi, P.Giannetto, S.M.A. Jafari, and D.N.Jones

Tetrahedron: Asymmetry **1992,** *3*, 701



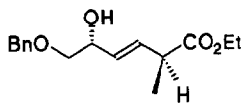
$[\alpha]_D$ = -41 (c, 0.08, $CHCl_3$); m.p.165 °C
Source of chirality: (1S)-d-10-mercaptoisoborneol
Absolute configuration 1S, 2R, 4R, S_S

$C_{18}H_{28}O_2S$

(S_S)-1-[1-((1S)-isobornyl-10-sulphinyl)vinyl]cyclohexene

S-K. Kang, Y-W. Park, D-H. Lee, H-S. Sim and J-H. Jeon

Tetrahedron: Asymmetry **1992,** *3*, 705



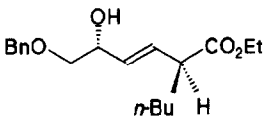
E.e. = >99% [nmr with $Eu(hfc)_3$]
$[\alpha]_D^{25}$ +8.71 (*c* = 0.82, $CHCl_3$)
Source of chirality: natural and asymm. synth.
Absolute configuration: 2S,5R

$C_{16}H_{22}O_4$

Ethyl (*E*,2*S*,5*R*)-6-(benzyloxy)-5-hydroxy-2-methyl-3-hexenoate

S-K. Kang, Y-W. Park, D-H. Lee, H-S. Sim and J-H. Jeon

Tetrahedron: Asymmetry **1992,** *3*, 705



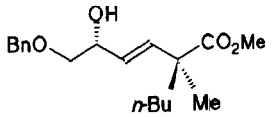
E.e. = >99% [nmr with $Eu(hfc)_3$]
$[\alpha]_D^{25}$ +17.14 (*c* = 0.35, $CHCl_3$)
Source of chirality: natural and asymm. synth.
Absolute configuration: 2S,5R

$C_{19}H_{28}O_4$

Ethyl (*E*,2*S*,5*R*)-6-(benzyloxy)-2-(*n*-butyl)-5-hydroxy-3-hexenoate

S-K. Kang, Y-W. Park, D-H. Lee, H-S. Sim and J-H. Jeon

Tetrahedron: Asymmetry **1992,** *3*, 705



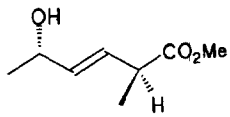
$C_{19}H_{28}O_4$

E.e. = >99% [nmr with $Eu(hfc)_3$]
$[\alpha]_D^{25}$ -10.0 (c = 0.30, $CHCl_3$)
Source of chirality: natural and asymm. synth.
Absolute configuration: 2S,5R

Methyl (*E*,2*S*,5*R*)-6-(benzyloxy)-2-(*n*-butyl)-5-hydroxy-2-methyl-3-hexenoate

S-K. Kang, Y-W. Park, D-H. Lee, H-S. Sim and J-H. Jeon

Tetrahedron: Asymmetry **1992,** *3*, 705



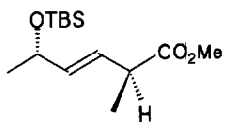
$C_8H_{14}O_3$

E.e. = >99% [nmr with $Eu(hfc)_3$]
$[\alpha]_D^{25}$ +40.26 (c = 1.13, $CHCl_3$)
Source of chirality: natural and asymm. synth.
Absolute configuration: 2S,5S

Methyl (*E*,2*S*,5*S*)-5-hydroxy-2-methyl-3-hexenoate

S-K. Kang, Y-W. Park, D-H. Lee, H-S. Sim and J-H. Jeon

Tetrahedron: Asymmetry **1992,** *3*, 705



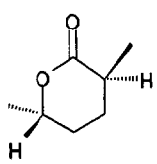
$C_{14}H_{28}O_3Si$

E.e. = >99% [nmr with $Eu(hfc)_3$]
$[\alpha]_D^{25}$ +29.24 (c = 0.73, $CHCl_3$)
Source of chirality: natural and asymm. synth.
Absolute configuration: 2S,5R

Methyl (*E*,2*S*,5*S*)-5-(*t*-butyldimethylsiloxy)-2-methyl-3-hexenoate

S-K. Kang, Y-W. Park, D-H. Lee, H-S. Sim and J-H. Jeon

Tetrahedron: Asymmetry **1992,** *3*, 705



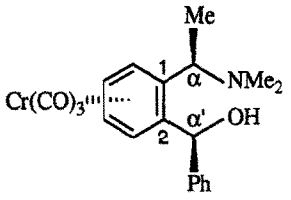
$C_7H_{12}O_2$

E.e. = >99% [nmr with $Eu(hfc)_3$]
$[\alpha]_D^{25}$ -52.8 (c = 0.58, $CHCl_3$)
Source of chirality: natural and asymm. synth.
Absolute configuration: 2S,5S

(2*S*,5*S*)-*trans*-2-Methyl-5-hexanolide

M. Uemura, R. Miyake, K. Nakayama, Y. Hayashi

Tetrahedron: Asymmetry **1992,** *3*, 713



$C_{20}H_{21}O_4NCr$

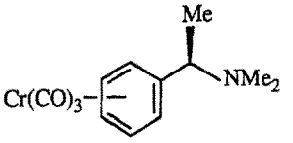
E.e. = >99%

$[\alpha]_D^{25}$ -133 (*c* 0.55, chloroform)

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

mp 157 °C

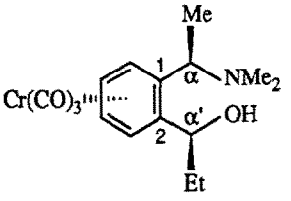
Sourrce of chirality: prepared from



(1*S*,2*R*)-Tricarbonyl[1-(α-(*R*)-*N*,*N*-dimethylaminoethyl)-2-(α'-(*S*)-hydroxybenzyl)benzene]chromium

M. Uemura, R. Miyake, K. Nakayama, Y. Hayashi

Tetrahedron: Asymmetry **1992,** *3*, 713



$C_{16}H_{21}O_4NCr$

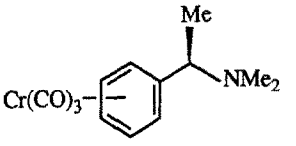
E.e. = >99%

$[\alpha]_D^{20}$ +14 (*c* 0.66, chloroform)

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

mp 62 °C

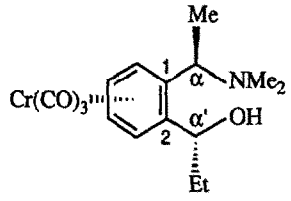
Sourrce of chirality: prepared from



(1*S*,2*R*)-Tricarbonyl[1-(α-(*R*)-*N*,*N*-dimethylaminoethyl)-2-(α'-(*S*)-hydroxypropyl)benzene]chromium

M. Uemura, R. Miyake, K. Nakayama, Y. Hayashi

Tetrahedron: Asymmetry **1992,** *3*, 713



$C_{16}H_{21}O_4NCr$

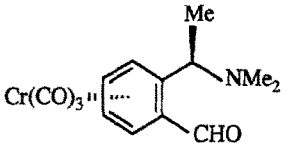
E.e. = >99%

$[\alpha]_D^{20}$ +21 (*c* 0.83, chloroform)

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

mp 110 °C

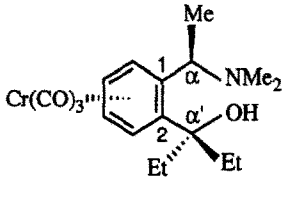
Sourrce of chirality: prepared from



(1*S*,2*R*)-Tricarbonyl[1-(α-(*R*)-*N*,*N*-dimethylaminoethyl)-2-(α'-(*R*)-hydroxypropyl)benzene]chromium

M. Uemura, R. Miyake, K. Nakayama, Y. Hayashi

Tetrahedron: Asymmetry **1992,** *3*, 713



$C_{18}H_{27}O_4NCr$

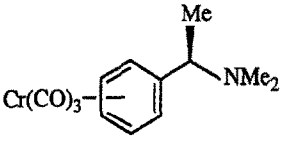
E.e. = >99%

$[\alpha]_D^{25}$ +67 (*c* 0.62, chloroform)

Absolute Configuratio: (1*S*,2*R*),α(*R*)

mp 120 °C

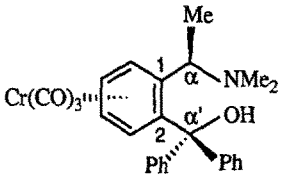
Sourrce of chirality: prepared from



(1*S*,2*R*)-Tricarbonyl[1-(α-(*R*)-*N*,*N*-dimethylaminoethyl)-2-(α'-hydroxy, α'-ethylpropyl)benzene]chromium

M. Uemura, R. Miyake, K. Nakayama, Y. Hayashi

Tetrahedron: Asymmetry **1992**, *3*, 713

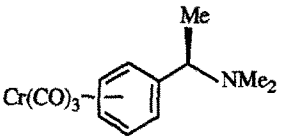


E.e. = >99%

$[\alpha]_D^{25}$ +54 (*c* 0.64, chloroform)

Absolute Configuratio: (1*S*,2*R*),α(*R*)

mp 73 °C



$C_{26}H_{27}O_4NCr$

Sourrce of chirality: prepared from

(1*S*,2*R*)-Tricarbonyl[1-(α-(*R*)-*N*,*N*-dimethylaminoethyl)-2-(α'-(*S*)-hydroxyethyl)benzene]chromium

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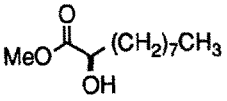
Sarah E. Kelly* and Thomas G. LaCour

Tetrahedron: Asymmetry **1992**, *3*, 715

E.e. > 99% (by ^{19}F NMR of MTPA ester)

$[\alpha]_D^{25}$ = -3.8 (c 1.0, MeOH)



Source of chirality: Resolution by a) chiral amine salt and b) lipase catalyzed hydrolysis of racemic ester

$C_{11}H_{22}O_3$

Methyl (R)-2-hydroxydecanoate

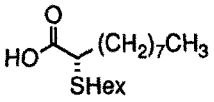
Absolute configuration : R (by correlation to known)

Sarah E. Kelly* and Thomas G LaCour

Tetrahedron: Asymmetry **1992**, *3*, 715

E.e. > 99% (by HPLC analysis of R-(+)-1-(napthyl)ethylamide)

$[\alpha]_D^{25}$ = -59.4 (c 1.0, MeOH)



Source of chirality: Resolution of intermediate by a) chiral amine salt and b) lipase catalyzed hydrolysis of racemic ester

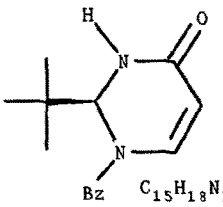
$C_{16}H_{32}O_2S$

(S)-2-Hexylthiodecanoic acid

Absolute configuration : S (by correlation to known intermediate)

Juaristi, E.; Quintana, D.

Tetrahedron: Asymmetry **1992**, *3*, 723



$C_{15}H_{18}N_2O_2$

$[\alpha]_D^{29}$ = + 564.5 (c=1.00, $CHCl_3$)

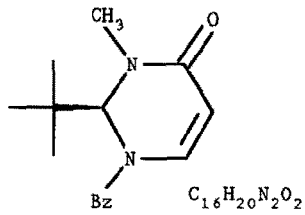
Source of chirality: (*S*)-asparagine

Absolute configuration: 2(*S*)

1-Benzoyl-2(*S*)-tert-butyl-2,3-dihydro-4(1H)-pyrimidinone

Juaristi, E.; Quintana, D.

Tetrahedron: Asymmetry **1992**, *3*, 723



$C_{16}H_{20}N_2O_2$

$[\alpha]_D^{29}$ = + 556 (c=1.00, $CHCl_3$)

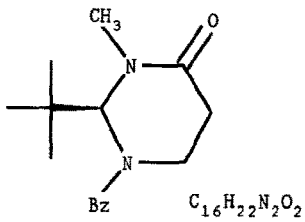
Source of chirality: (*S*)-asparagine

Absolute configuration: 2(*S*)

1-Benzoyl-2(*S*)-*tert*-butyl-3-methyl-2,3-dihydro-4(1H)-pyrimidinone

Juaristi, E.; Quintana, D.

Tetrahedron: Asymmetry **1992**, *3*, 723



$C_{16}H_{22}N_2O_2$

$[\alpha]_D^{29}$ = + 50 (c=1.00, $CHCl_3$)

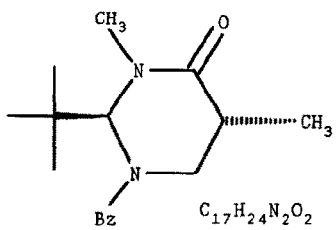
Source of chirality: (*S*)-asparagine

Absolute configuration: 2(*S*)

1-Benzoyl-2(*S*)-*tert*-butyl-3-methyl-perhydropyrimidin-4-one

Juaristi, E.; Quintana, D.

Tetrahedron: Asymmetry **1992**, *3*, 723



$C_{17}H_{24}N_2O_2$

$[\alpha]_D^{29}$ = + 37 (c=1.00, $CHCl_3$)

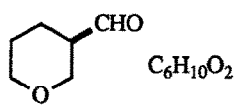
Source of chirality: (*S*)-asparagine

Absolute configuration: 2(*S*),5(*R*)

1-Benzoyl-2(*S*)-*tert*-butyl-3-methyl-5(*R*)-methyl-perhydropyrimidin-4-one

Tetrahedron: Asymmetry **1992**, *3*, 731

F. J. Urban and B. S. Moore



$C_6H_{10}O_2$

Tetrahydropyranyl-(3R)-carboxaldehyde

E.e.≥ 98% [by chiral HPLC]

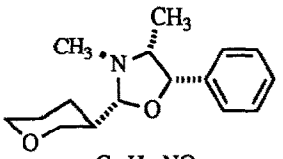
$[\alpha]_D$ +3 (c=0.64, $CHCl_3$)

Source of chirality: resolution

Absolute configuration: 3R (assigned by X-ray of synth. intermed. and correlation to natural product)

F. J. Urban and B. S. Moore

Tetrahedron: Asymmetry **1992,** *3*, 731



$C_{16}H_{23}NO_2$

N-methyl 2R-(3'S-tetrahydropyranyl)-4R-methyl-5S-phenyloxazolidine

E.e.≥ 98% [by NMR]

$[\alpha]_D$ +68 (c=0.75, MeOH)

mp 68-69.5°C

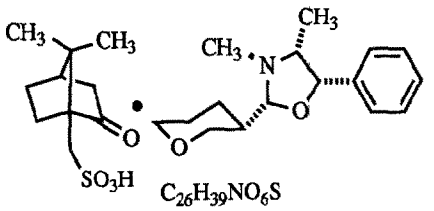
Source of chirality: resolution

Absolute configuration: 2R,3'S,4R,5S

(assigned by X-ray)

F. J. Urban and B. S. Moore

Tetrahedron: Asymmetry **1992,** *3*, 731



$C_{26}H_{39}NO_6S$

N-methyl 2R-(3'S-tetrahydropyranyl)-4R-methyl-5S-phenyloxazolidium (+)-camphorsulfonate

E.e.≥ 98% [by NMR on free base]

$[\alpha]_D$ +77 (c=1.4, MeOH)

mp 167-8°C

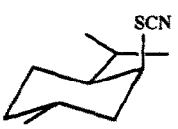
Source of chirality: resolution

Absolute configuration: 2R,3'S,4R,5S

(assigned by X-ray of free base)

J. M. Blanco, O. Caamaño, F. Fernández, G. Gómez and C. López

Tetrahedron: Asymmetry **1992,** *3*, 749



$C_{11}H_{19}NS$

2-Isopropyl-5-methylcyclohexyl thiocyanate

E. e. = 99±1%

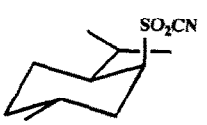
$[\alpha]_D^{25}$ +91.8 (*c*=1.08, EtOH).

Source of chirality: natural (-)-menthol, [(*1R,2S,5R*)-2-Isopropyl-5-methylcyclohexanol; $[\alpha]_D^{25}$ -50 (*c*=10, EtOH)]

Absolute configuration: *1S,2S,5R* (*1S,2S* assigned based on reaction mechanism and by 250 MHz ^{1}H n.m.r.)

J. M. Blanco, O. Caamaño, F. Fernández, G. Gómez and C. López

Tetrahedron: Asymmetry **1992,** *3*, 749



$C_{11}H_{19}NO_2S$

2-Isopropyl-5-methylcyclohexanesulfonyl cyanide

E. e. = 99±1% (chemical purity 95%, impurity being its above precursor).

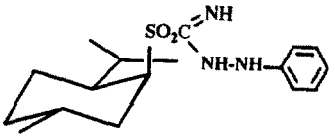
$[\alpha]_D^{25}$ +68.9 (*c*=1.7, EtOH).

Source of chirality: natural (-)-menthol, [(*1R,2S,5R*)-2-Isopropyl-5-methylcyclohexanol; $[\alpha]_D^{25}$ -50 (*c*=10, EtOH)]

Absolute configuration: *1S,2S,5R* (assigned by correlation with related synthetic intermediate; *1S,2S* by 250 MHz ^{1}H n.m.r.)

J. M. Blanco, O. Caamaño, F. Fernández, G. Gómez and C. López

Tetrahedron: Asymmetry **1992**, *3*, 749



$C_{17}H_{27}N_3O_2S$

E. e. = 99±1%

$[\alpha]_D^{25}$ +31.1 (*c*=0.32, EtOH).

Source of chirality: natural (-)-menthol, [(*1R,2S,5R*)-2-Isopropyl-5-methylcyclohexanol; $[\alpha]_D^{25}$ -50 (*c*=10, EtOH)]

Absolute configuration: *1S,2S,5R* (assigned by correlation with related synthetic intermediate; *1S,2S* by 250 MHz ^{1}H n.m.r.)

C-(2-Isopropyl-5-methylcyclohexanesulfonyl)-*N*^{1}-phenylformamidrazone

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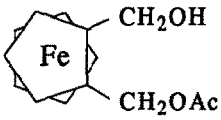
G. Nicolosi, R. Morrone, A. Patti, and M. Piattelli

Tetrahedron: Asymmetry **1992**, *3*, 753



E.e. = 100%

$[\alpha]_D^{25}$ -28.3 (c 0.12, EtOH)

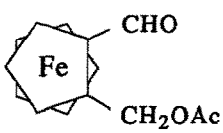
Source of chirality: Lipase catalyzed transesterification

$C_{14}H_{16}O_3Fe$

(1*S*)-(–)-2-Acetoxymethyl-1-hydroxymethylferrocene

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

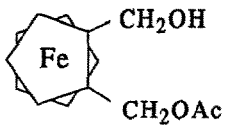
Tetrahedron: Asymmetry **1992**, *3*, 753



E.e. = 100%

$[\alpha]_D^{25}$ -34.2 (c 0.1, EtOH)

Source of chirality: prepared from

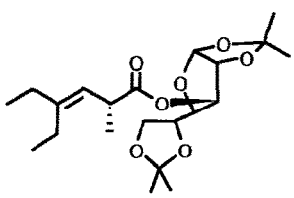


$C_{14}H_{14}O_3Fe$

(1*S*)-(–)-2-Acetoxymethyl-1-formylferrocene

O. Piva and J.P. Pete

Tetrahedron: Asymmetry **1992**, *3*, 759



d.e. = 97% (by ^{1}H NMR)

$[\alpha]_D$ = - 85.0 (c= 0.7, CH_2Cl_2)

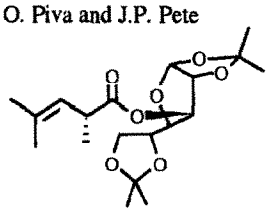
Absolute configuration 2R.

Source of chirality : Asymmetric photodeconjugation.

$C_{21}H_{34}O_7$ (1,2; 5,6 - Di-O-isopropyliden- α-D-glucofuranose-3-O-yl) 4-ethyl, 2-methyl 3-hexenoate

Tetrahedron: Asymmetry **1992,** *3*, 759

O. Piva and J.P. Pete



d.e. = 98% (by ^{1}H NMR)

$[\alpha]_D$ = - 94.4 (c= 0.6, CH_2Cl_2)

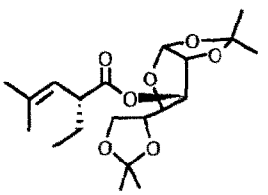
Absolute configuration 2R.

Source of chirality : Asymmetric photodeconjugation.

$C_{19}H_{30}O_7$ (1,2; 5,6 - Di-O-isopropyliden- α-D-glucofuranose-3-O-yl) 2,4-dimethyl 3-pentenoate

Tetrahedron: Asymmetry **1992,** *3*, 759

O. Piva and J.P. Pete



d.e. = 98% (by ^{1}H NMR)

$[\alpha]_D$ = - 89.3 (c= 0.9, CH_2Cl_2)

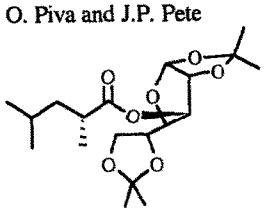
Absolute configuration 2R.

Source of chirality : Asymmetric photodeconjugation.

$C_{20}H_{32}O_7$ (1,2; 5,6 - Di-O-isopropyliden- α-D-glucofuranose-3-O-yl) 2-ethyl, 4-methyl 3-pentenoate

Tetrahedron: Asymmetry **1992,** *3*, 759

O. Piva and J.P. Pete



d.e. = 90% (by ^{13}C NMR)

$[\alpha]_D$ = - 31.7 (c= 1.0, CH_2Cl_2)

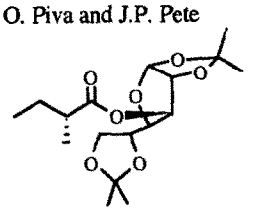
Absolute configuration 2R.

Source of chirality : Asymmetric photodeconjugation.

$C_{19}H_{32}O_7$ (1,2; 5,6 - Di-O-isopropyliden- α-D-glucofuranose-3-O-yl) 2,4-dimethyl pentanoate

Tetrahedron: Asymmetry **1992,** *3*, 759

O. Piva and J.P. Pete



d.e. = 75% (by ^{13}C NMR)

$[\alpha]_D$ = - 31.2 (c= 1.0, CH_2Cl_2)

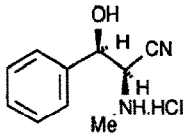
Absolute configuration 2R.

Source of chirality : Asymmetric photodeconjugation.

$C_{17}H_{28}O_7$ (1,2; 5,6 - Di-O-isopropyliden- α-D-glucofuranose-3-O-yl) 2-methyl butanoate

Peter Zandbergen, Johannes Brussee,
Arne van der Gen and Chris G. Kruse.

Tetrahedron: Asymmetry **1992**, *3*, 769



D.e. = 76% (^{1}H NMR).
$[\alpha]_D^{20}$ -70 (c = 1, 0.1N HCl).

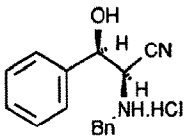
$C_{10}H_{12}N_2O.HCl$
3-Hydroxy-2-methylamino-
3-phenylpropionitrile

Source of chirality: (*R*)-mandelonitrile.

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

Peter Zandbergen, Johannes Brussee,
Arne van der Gen and Chris G. Kruse.

Tetrahedron: Asymmetry **1992**, *3*, 769



D.e. = >95% (^{1}H NMR).
$[\alpha]_D^{20}$ -67 (c = 1, 0.1N HCl).

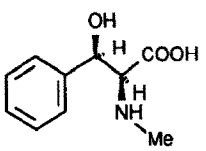
$C_{16}H_{16}N_2O.HCl$
2-Benzylamino-3-hydroxy-
3-phenylpropionitrile

Source of chirality: (*R*)-mandelonitrile.

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

Peter Zandbergen, Johannes Brussee,
Arne van der Gen and Chris G. Kruse.

Tetrahedron: Asymmetry **1992**, *3*, 769



D.e. = >99% (^{1}H NMR).
E.e. = >97% (Chiralcel OD)
$[\alpha]_D^{20}$ -30 (c = 1, 1N HCl).

$C_{10}H_{13}NO_3$

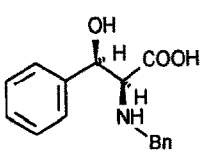
L-(-)-N-methyl-3-phenylserine

Source of chirality: (*R*)-mandelonitrile.

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

Peter Zandbergen, Johannes Brussee,
Arne van der Gen and Chris G. Kruse.

Tetrahedron: Asymmetry **1992**, *3*, 769



D.e. = >99% (^{1}H NMR).
E.e. = >97% (Chiralcel OD)
$[\alpha]_D^{20}$ -23 (c = 1, 1N HCl).

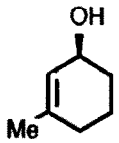
$C_{16}H_{17}NO_3$

L-(-)-N-benzyl-3-phenylserine

Source of chirality: (*R*)-mandelonitrile.

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

G. Carrea, B. Danieli, G. Palmisano, S. Riva and M. Santagostino | *Tetrahedron: Asymmetry* **1992**, *3*, 775



$C_7H_{12}O$

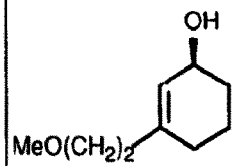
(S)-3-methyl-2-cyclohexen-1-ol

E.e. = 99.5% by chiral GLC (CP-cyclodextrin-β-2,3,6-M-19)

Source of chirality: lipase *Mucor miehei* catalyzed acylation

Absolute configuration: S

G. Carrea, B. Danieli, G. Palmisano, S. Riva and M. Santagostino | *Tetrahedron: Asymmetry* **1992**, *3*, 775



$C_9H_{16}O_2$

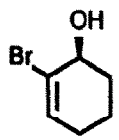
(S)-3(2-methoxyethyl)-2-cyclohexen-1-ol

E.e. = 99.5% by chiral GLC (CP-cyclodextrin-β-2,3,6-M-19)

Source of chirality: lipase *Mucor miehei* catalyzed acylation

Absolute configuration: S

G. Carrea, B. Danieli, G. Palmisano, S. Riva and M. Santagostino | *Tetrahedron: Asymmetry* **1992**, *3*, 775



C_6H_9BrO

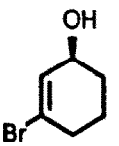
(S)-2-bromo-2-cyclohexen-1-ol

E.e. = 98% by chiral GLC (CP-cyclodextrin-β-2,3,6-M-19)

Source of chirality: lipase *Mucor miehei* catalyzed acylation

Absolute configuration: S

G. Carrea, B. Danieli, G. Palmisano, S. Riva and M. Santagostino | *Tetrahedron: Asymmetry* **1992**, *3*, 775



C_6H_9BrO

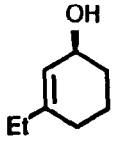
(S)-3-bromo-2-cyclohexen-1-ol

E.e. = 99% by chiral GLC (CP-cyclodextrin-β-2,3,6-M-19)

Source of chirality: lipase *Ps. cepacia* catalyzed acylation

Absolute configuration: S

G. Carrea, B. Danieli, G. Palmisano, S. Riva and M. Santagostino | *Tetrahedron: Asymmetry* **1992,** *3*, 775



$C_8H_{14}O$

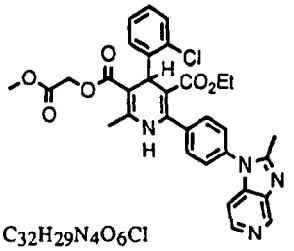
(S)-3-ethyl-2-cyclohexen-1-ol

E.e. = 99.5% by chiral GLC (CP-cyclodextrin-β-2,3,6-M-19)

Source of chirality: lipase *Ps. cepacia* catalyzed acylation

Absolute configuration: S

C. D. Reeve, D. H. G. Crout, K. Cooper and M. J. Fray. | *Tetrahedron: Asymmetry* **1992,** *3*, 785



E.e. = >98% [by h.p.l.c]
Source of chirality: kinetic resolution by rabbit liver esterase.
Absolute configuration: unknown.

$C_{32}H_{29}N_4O_6Cl$

4-(2-Chlorophenyl)-1,4-dihydro-3-ethoxycarbonyl-6-methyl-2-[4-(2-methylimidazo[4,5-c] pyrid-1-yl)phenyl]pyridine-5-methoxycarbonylmethylcarboxylate.