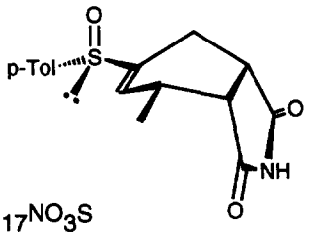
Pascal Gosselin, Eric Bonfand, Patricia Hayes, Richard Retoux, Christian Maignan

Tetrahedron: Asymmetry **1994**, *5*, 781

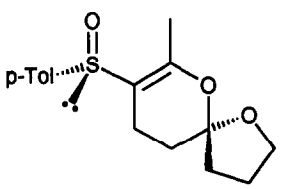


E.e. ≥ 99%
$[\alpha]_D^{25}$ = -19.6 (DMSO)
Source of chirality: (R)-(+)-p-tolylvinylsulfoxide (e.e.≥ 99%)
Absolute configuration: 1S, 2R, 3S, R_S

$C_{16}H_{17}NO_3S$
3-methyl-5-p-tolylsulfinylcyclohex-4-en-1,2-dicarboxamide

Pascal Gosselin, Eric Bonfand, Patricia Hayes, Richard Retoux, Christian Maignan

Tetrahedron: Asymmetry **1994**, *5*, 781

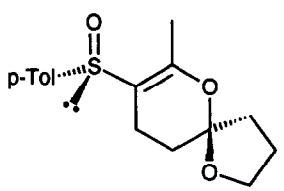


E.e. ≥ 99 % (by ^{1}H-NMR in the presence of Eu(hfc)$_3$)
$[\alpha]_D^{25}$ = +63 (c = 0.98, EtOH)
Source of chirality: (R)-(+)-p-tolylvinylsulfoxide (e.e.≥ 99%)
Absolute configuration: S_S, 5S

$C_{16}H_{20}O_3S$
7-methyl-8-p-tolylsulfinyl-1,6-dioxaspiro[4.5]dec-7-ene

Pascal Gosselin, Eric Bonfand, Patricia Hayes, Richard Retoux, Christian Maignan

Tetrahedron: Asymmetry **1994**, *5*, 781

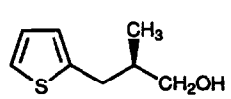


E.e. ≥ 99%
$[\alpha]_D^{25}$ = -83 (c = 1.15, EtOH)
Source of chirality: (R)-(+)-p-tolylvinylsulfoxide (e.e.≥ 99%)
Absolute configuration: S_S, 5R

$C_{16}H_{20}O_3S$
7-methyl-8-p-tolylsulfinyl-1,6-dioxaspiro[4.5]dec-7-ene

Tetrahedron: Asymmetry **1994**, *5*, 785

Ove Nordin, Erik Hedenström and Hans-Erik Högberg

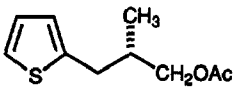


$[\alpha]_D^{25}$ +21.1 (c 0.8 MeOH)
E.e > 99 % (1. Oxidation to acid, 2. Formation of the amide with (*R*)-1-phenylethylamine 3. Determination of diastereomeric ratio by GC.)
Source of chirality: Lipase-catalyzed kinetic resolution

$C_8H_{12}OS$
(*R*)-β-Methyl-2-thiophenepropanol

Tetrahedron: Asymmetry **1994**, *5*, 785

Ove Nordin, Erik Hedenström and Hans-Erik Högberg



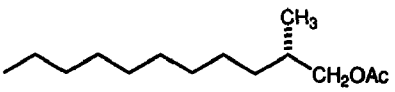
$C_{10}H_{12}O_2$
Acetate of (*S*)-β-Methyl-2-thiophenepropanol

$[\alpha]_D^{25}$ +2.5 (neat)
E.e. ≥ 98 % (1. $LiAlH_4$-reduction 2. Oxidation to acid, 3. Formation of the amide with (*R*)-1-phenylethylamine 4. Determination of diastereomeric ratio by GC.

Source of chirality: Lipase-catalyzed kinetic resolution

Tetrahedron: Asymmetry **1994**, *5*, 785

Ove Nordin, Erik Hedenström and Hans-Erik Högberg



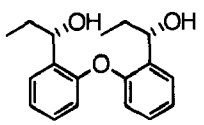
$C_{13}H_{26}O_2$
(*S*)-2-Methyl-1-decanyl acetate

E.e. = 75 % (1. $LiAlH_4$-reduction 2. Oxidation to acid, 3. Formation of the amide with (*R*)-1-phenylethylamine 4. Determination of diastereomeric ratio by GC).

Source of chirality: Lipase-catalyzed kinetic resolution

Tetrahedron: Asymmetry **1994**, *5*, 789

K.Soai,T.Hayase,C.Shimada and K.Isobe



$C_{18}H_{22}O_3$
Bis[2-(1-hydroxypropyl)phenyl]ether

E.e.=98%[by HPLC analysis using chiral column Chiralcel OD]

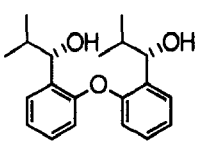
$[\alpha]_D^{23}$= -38.8 (c1.19,EtOH)

Source of chirality : asymm. synth.

Absolute configuration *S,S* (tentatively assigned)

Tetrahedron: Asymmetry **1994**, *5*, 789

K.Soai,T.Hayase,C.Shimada and K.Isobe



$C_{20}H_{26}O_3$
Bis[2-(1-hydroxy-2-methylpropyl)-phenyl]ether

E.e.=100%[by HPLC analysis using chiral column Chiralcel OF]

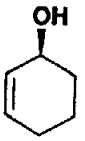
$[\alpha]_D^{26}$= -54.9 (c1.05,EtOH)

Source of chirality : asymm. synth.

Absolute configuration *S,S* (tentatively assigned)

M. Asami,* T. Ishizaki, S. Inoue

Tetrahedron: Asymmetry **1994**, *5*, 793



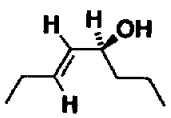
$C_6H_{10}O$
2-Cyclohexen-1-ol

E.e.= 81% (by comparison of $[\alpha]_D$ with that reported and by ^{1}H-NMR of the MTPA ester)
$[\alpha]_D^{18}$ –105.2 (*c* 0.61, $CHCl_3$), lit.[1] $[\alpha]_D$ +130.6 (c 1.21, $CHCl_3$)
Source of chirality: Enantioselective deprotonation
Absolute configuration: *S*

[1] Fukazawa, T.; Hashimoto, T. *Tetrahedron Asymmetry* **1993**, *4*, 2323.

M. Asami,* T. Ishizaki, S. Inoue

Tetrahedron: Asymmetry **1994**, *5*, 793

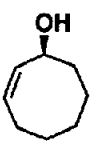


$C_8H_{16}O$
(*E*)-5-Octene-4-ol

E.e= 60% (by ^{1}H-NMR of the acetate in the presence of Eu(hfc)$_3$)
$[\alpha]_D^{23}$ –3.47 (*c* 3.74, $CHCl_3$)
Sources of chirality: Enantioselective deprotonation
Absolute configuration: *S*

M. Asami,* T. Ishizaki, S. Inoue

Tetrahedron: Asymmetry **1994**, *5*, 793

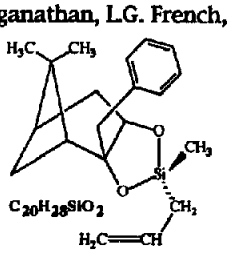


$C_8H_{14}O$
2-Cycloocten-1-ol

E.e.= 54% (by ^{1}H-NMR of the acetate in the presence of Eu(hfc)$_3$)
$[\alpha]_D^{23}$ +28.9 (*c* 0.93, $CHCl_3$)
Source of chirality: Enantioselective deprotonation
Absolute configuration: *S*

K. Shanmuganathan, L.G. French, and B.L. Jensen

Tetrahedron: Asymmetry **1994**, *5*, 797



$C_{20}H_{28}SiO_2$

mp = 86 ^{0}C

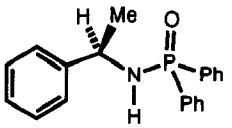
Source of Chirality: natural and synthetic

Absolute Configuration:1R, 2R, 3S, 4R, SiS
(assigned from synthetic intermediate and 2D-NOESY NMR)

4,6-Methano-1,3,2-benzodioxasilole, hexahydro-2,5,5-trimethyl-3a-(phenylmethyl)-2-(2-propenyl)-[3aR-(3aα, 4β, 6β, 7aα)]- **CA Index Name**

Tetrahedron: Asymmetry **1994,** *5,* 801

Barry Burns, N. Paul King, John R. Studley, Heather Tye and Martin Wills*



$C_{20}H_{20}NOP$

R-(+)-**1**

R-(+)-(N-1-phenethyl)-diphenylphosphinamide

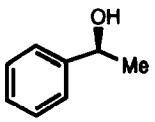
E.e.=100%

$[\alpha]_D^{22}$= +40.2 (c=1.0, methanol)
Source of chirality: enantiomerically pure α-methyl benzylamine.

Absolute configuration:R

Tetrahedron: Asymmetry **1994,** *5,* 801

Barry Burns, N. Paul King, John R. Studley, Heather Tye and Martin Wills*



$C_8H_{10}O$

S-(-)-1-phenyl ethanol

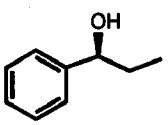
E.e.=27%

$[\alpha]_D^{22}$= -11.5 (c=1.0, methanol)
Source of chirality: asymmetric reduction of acetophenone.

Absolute configuration:S

Tetrahedron: Asymmetry **1994,** *5,* 801

Barry Burns, N. Paul King, John R. Studley, Heather Tye and Martin Wills*



$C_9H_{12}O$

S-(-)-1-phenyl propanol

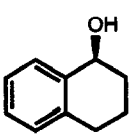
E.e.=23%

$[\alpha]_D^{20}$= -11.0 (c=1.95, hexane)
Source of chirality: asymmetric reduction of propiophenone.

Absolute configuration:S

Tetrahedron: Asymmetry **1994,** *5,* 801

Barry Burns, N. Paul King, John R. Studley, Heather Tye and Martin Wills*



$C_{10}H_{12}O$

S-(+)-1,2,3,4-tetrahydronaphthalene (tetralol)

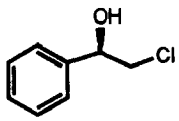
E.e.=21%

$[\alpha]_D^{20}$ = +6.84 (c=1.96, chloroform)
Source of chirality: asymmetric reduction of tetralone.

Absolute configuration:S

Tetrahedron: Asymmetry **1994,** *5,* 801

Barry Burns, N. Paul King, John R. Studley, Heather Tye and Martin Wills*



C_8H_9ClO

R-(-)-2-Chloro-1-phenyl ethanol

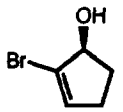
E.e.=22%

$[\alpha]_D^{20}$= -10.7 (c=2.85, cyclohexane)
Source of chirality: asymmetric reduction of α–chloro-acetophenone.

Absolute configuration:R

Tetrahedron: Asymmetry **1994,** *5,* 801

Barry Burns, N. Paul King, John R. Studley, Heather Tye and Martin Wills*



C_5H_6BrO

S-(-)-2-bromocyclopent-2-enol

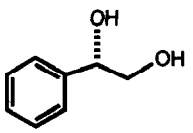
E.e.=46%

$[\alpha]_D^{20}$ = -13.4 (c=2.5, methanol)
Source of chirality: asymmetric reduction of α–bromo-cyclopentenone.

Absolute configuration:S

Tetrahedron: Asymmetry **1994,** *5,* 801

Barry Burns, N. Paul King, John R. Studley, Heather Tye and Martin Wills*



$C_8H_{10}O_2$

S-(-)-1-phenyl-1,2-ethanediol

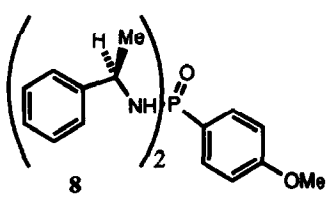
E.e.=5.4%

$[\alpha]_D^{20}$= +3.58 (c=0.95, chloroform)
Source of chirality: asymmetric reduction of methyl benzoylformate.

Absolute configuration:S

Tetrahedron: Asymmetry **1994,** *5,* 801

Barry Burns, N. Paul King, John R. Studley, Heather Tye and Martin Wills*



8

$C_{23}H_{27}N_2OP$

R,R-(+)-(N,N'-di-1-phenethyl)(*p*-methoxyphenyl) phosphonamide.

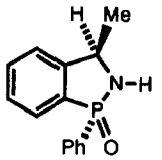
E.e.=100%

$[\alpha]_D^{12}$ = +29.5 (c=1.3, chloroform)
Source of chirality: enantiomerically pure α-methylbenzylamine.

Absolute configuration:R,R

Tetrahedron: Asymmetry **1994,** *5,* 801

Barry Burns, N. Paul King, John R. Studley, Heather Tye and Martin Wills*



$C_{14}H_{14}NO_2P$

10

$S_{(P)}R$-(-)-dihydrobenzazaphosphole oxide

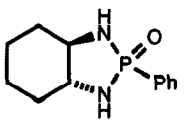
E.e.=100%

$[\alpha]_D^{20}$= -131.2 (c=0.87, methanol)
Source of chirality: enantiomerically pure α-methylbenzylamine.

Absolute configuration:$S_{(P)}R$

Tetrahedron: Asymmetry **1994,** *5,* 801

Barry Burns, N. Paul King, John R. Studley, Heather Tye and Martin Wills*



$C_{12}H_{17}N_2OP$

11

R,R-(+)-4,5-tetramethylene-2-phenyl-1,3,2-diaza-phosphorine-2-oxide

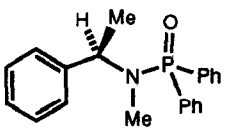
E.e.=100%

$[\alpha]_D^{12}$ = +4.3 (c=0.51, methanol)
Source of chirality: enantiomerically pure (R,R)-(-)-1,2-diaminocyclohexane.

Absolute configuration:R,R

Tetrahedron: Asymmetry **1994,** *5,* 801

Barry Burns, N. Paul King, John R. Studley, Heather Tye and Martin Wills*



$C_{21}H_{22}NOP$

R-(+)-**12**

R-(+)-(N-methyl)(N-1-phenethyl)-diphenylphosphinamide

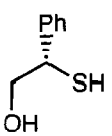
E.e.=100%

$[\alpha]_D^{22}$= +49.9 (c=1.0, methanol)
Source of chirality: enantiomerically pure α-methylbenzylamine.

Absolute configuration:R

Tetrahedron: Asymmetry **1994,** *5,* 805

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

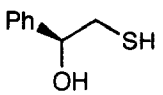


$C_8H_{10}OS$
(S)-2-mercapto-2-phenylethanol

$[\alpha]_D$ = +90 (c, 0.022, $CHCl_3$); m.p. 46-48°C
Source of chirality: ethyl (R)-mandelate
Absolute configuration: S

Tetrahedron: Asymmetry **1994,** *5,* 805

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

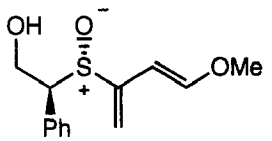


$[\alpha]_D$ = +50 (c, 0.009, $CHCl_3$)
Source of chirality: ethyl (S)-mandelate
Absolute configuration: S

$C_8H_{10}OS$
(S)-2-mercapto-1-phenylethanol

Tetrahedron: Asymmetry **1994,** *5,* 805

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

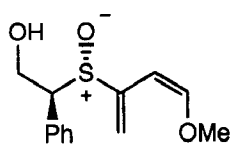


$[\alpha]_D$ = +127 (c, 0.004, $CHCl_3$)
Source of chirality: (S)-2-mercapto-2-phenylethanol
Absolute configuration: S, S_S

$C_{13}H_{16}O_3S$
(S,S_S,E)-3-(2-hydroxy-1-phenylethylsulfinyl)-1-methoxy-1,3-butadiene

Tetrahedron: Asymmetry **1994,** *5,* 805

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

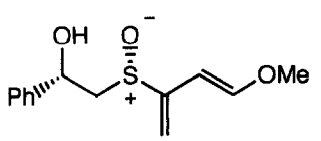


$[\alpha]_D$ = +119 (c, 0.003, $CHCl_3$)
Source of chirality: (S)-2-mercapto-2-phenylethanol
Absolute configuration: S, S_S

$C_{13}H_{16}O_3S$
(S,S_S,Z)-3-(2-hydroxy-1-phenylethylsulfinyl)-1-methoxy-1,3-butadiene

Tetrahedron: Asymmetry **1994,** *5,* 805

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

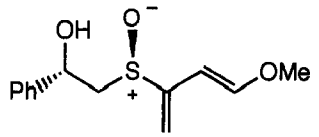


$[\alpha]_D$ = +83 (c, 0.001, $CHCl_3$)
Source of chirality: (S)-2-mercapto-1-phenylethanol
Absolute configuration: S, S_S

$C_{13}H_{16}O_3S$
(S,S_S,E)-3-(2-hydroxy-2-phenylethylsulfinyl)-1-methoxy-1,3-butadiene

Tetrahedron: Asymmetry **1994,** *5,* 805

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

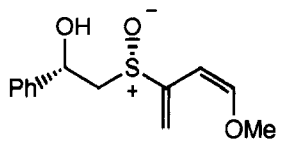


$[\alpha]_D$ = -58 (c, 0.002, $CHCl_3$)
Source of chirality: (S)-2-mercapto-1-phenylethanol
Absolute configuration: S, R_S

$C_{13}H_{16}O_3S$
(S,R_S,E)-3-(2-hydroxy-2-phenylethylsulfinyl)-1-methoxy-1,3-butadiene

Tetrahedron: Asymmetry **1994,** *5,* 805

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

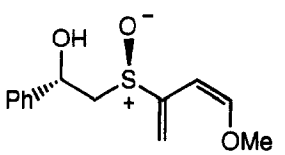


$[\alpha]_D$ = +100 (c, 0.008, $CHCl_3$)
Source of chirality: (S)-2-mercapto-1-phenylethanol
Absolute configuration: S, S_S

$C_{13}H_{16}O_3S$
(S,S_S,Z)-3-(2-hydroxy-2-phenylethylsulfinyl)-1-methoxy-1,3-butadiene

Tetrahedron: Asymmetry **1994,** *5,* 805

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

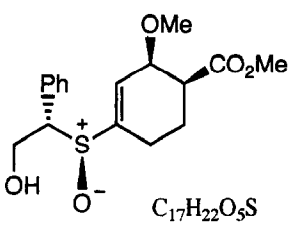


$[\alpha]_D$ = -71 (c, 0.002, $CHCl_3$)
Source of chirality: (S)-2-mercapto-1-phenylethanol
Absolute configuration: S, R_S

$C_{13}H_{16}O_3S$
(S,R_S,Z)-3-(2-hydroxy-2-phenylethylsulfinyl)-1-methoxy-1,3-butadiene

Tetrahedron: Asymmetry **1994,** *5,* 805

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

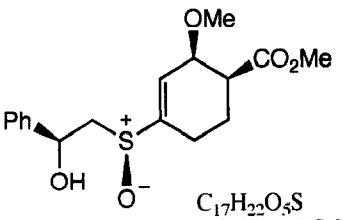


$[\alpha]_D$ = +200 (c, 0.001, $CHCl_3$)
Source of chirality: (S)-2-mercapto-2-phenylethanol
Absolute configuration: 3S, 4S, (S,S_S)

$C_{17}H_{22}O_5S$
(3S,4S)-1-[(S,S_S)-2-hydroxy-1-phenylethylsulfinyl]-3-methoxy-4-methoxycarbonylcyclohexene

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

Tetrahedron: Asymmetry **1994,** *5,* 805



$[\alpha]_D$ = +53 (c, 0.002, $CHCl_3$)
Source of chirality: (S)-2-mercapto-1-phenylethanol
Absolute configuration: 3S, 4S, (S,S_S)

$C_{17}H_{22}O_5S$
(3S,4S)-1-[(S,S_S)-2-hydroxy-2-phenylethylsulfinyl]-3-methoxy-4-methoxycarbonylcyclohexene

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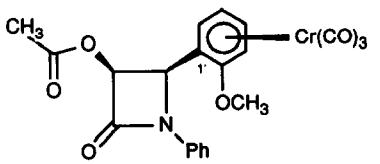
C. Baldoli, P. Del Buttero, E. Licandro, S. Maiorana and A. Papagni

Tetrahedron: Asymmetry **1994,** *5,* 809



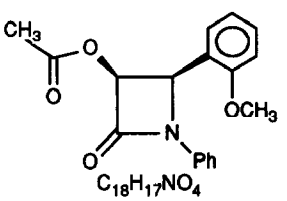
$C_{21}H_{17}NO_7Cr$

Tricarbonyl [3-acetoxy-4-(η^6-2-methoxyphenyl)-1-phenylazetidin-2-one] chromium

E.e. ≥ 98% by nmr with $Eu(hfc)_3$
$[\alpha]_D$ = -154 (c 0.14, $CHCl_3$)
Source of chirality: (+)-(1S)- tricarbonyl (N-(2-methoxybenzylidene) aniline)chromium
Absolute configuration: 3S, 4R,1'S

C. Baldoli, P. Del Buttero, E. Licandro, S. Maiorana and A. Papagni

Tetrahedron: Asymmetry **1994,** *5,* 809



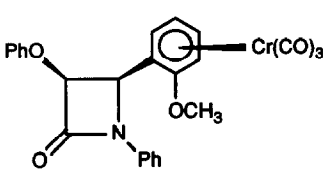
$C_{18}H_{17}NO_4$

3-Acetoxy-4-(2-methoxyphenyl)-1-phenylazetidin-2-one

E.e. ≥ 98% by nmr with $Eu(hfc)_3$
$[\alpha]_D$ = -66 (c 0.4, $CHCl_3$)
Source of chirality: (+)-(1S)- tricarbonyl (N-(2-methoxybenzylidene) aniline)chromium
Absolute configuration: 3S, 4R

C. Baldoli, P. Del Buttero, E. Licandro, S. Maiorana and A. Papagni

Tetrahedron: Asymmetry **1994,** *5,* 809



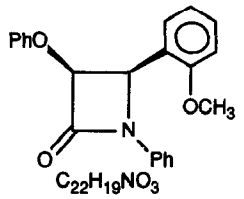
$C_{25}H_{19}NO_6Cr$

Tricarbonyl [4-(η^6-2-methoxyphenyl)-3-phenoxy-1-phenylazetidin-2-one] chromium

E.e. ≥ 98% by nmr with $Eu(hfc)_3$
$[\alpha]_D$ = -191 (c 0.26, $CHCl_3$)
Source of chirality: (+)-(1S)- tricarbonyl (N-(2-methoxybenzylidene) aniline)chromium

Tetrahedron: Asymmetry **1994**, *5*, 809

C. Baldoli, P. Del Buttero, E. Licandro, S. Maiorana and A. Papagni



$C_{22}H_{19}NO_3$

4-(2-Methoxyphenyl)-3-phenoxy-1-phenylazetidin-2-one

E.e. ≥ 98% by nmr with $Eu(hfc)_3$

$[\alpha]_D$ = -74 (c 0.123, $CHCl_3$)

Source of chirality: (+)-(1S)- tricarbonyl (N-(2-methoxybenzylidene) aniline)chromium

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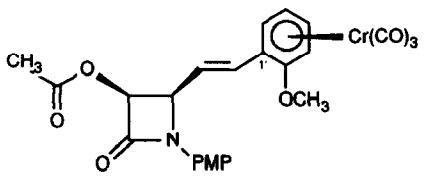
Tetrahedron: Asymmetry **1994**, *5*, 809

C. Baldoli, P. Del Buttero, E. Licandro, S. Maiorana and A. Papagni



$C_{24}H_{21}NO_8Cr$

E.e. ≥ 98% by nmr with $Eu(hfc)_3$

$[\alpha]_D$ = +224 (c 0.43, $CHCl_3$)

Source of chirality: (+)- (1S)-tricarbonyl [4-methoxy-N-(2-methoxycinnamylidene)aniline] chromium

Absolute configuration: 3S, 4R,1'S

Tricarbonyl [3-acetoxy-1-(4-methoxyphenyl)-4-(η^6-2-methoxystyryl)azetidin-2-one] chromium

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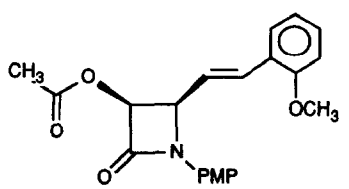
Tetrahedron: Asymmetry **1994**, *5*, 809

C. Baldoli, P. Del Buttero, E. Licandro, S. Maiorana and A. Papagni



$C_{21}H_{21}NO_5$

E.e. ≥ 98% by nmr with $Eu(hfc)_3$

$[\alpha]_D$ = -15 (c 0.21, $CHCl_3$)

Source of chirality: (+)-(1S)- tricarbonyl [4-methoxy-N-(2-methoxycinnamylidene)aniline] chromium

Absolute configuration: 3S, 4R

3-Acetoxy-1-(4-methoxyphenyl)-4-(2-methoxystyryl)azetidin-2-one

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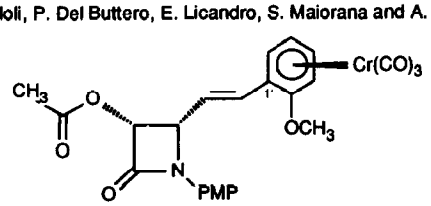
Tetrahedron: Asymmetry **1994**, *5*, 809

C. Baldoli, P. Del Buttero, E. Licandro, S. Maiorana and A. Papagni



$C_{24}H_{21}NO_8Cr$

E.e. ≥ 98% by nmr with $Eu(hfc)_3$

$[\alpha]_D$ = +524 (c 0.16, $CHCl_3$)

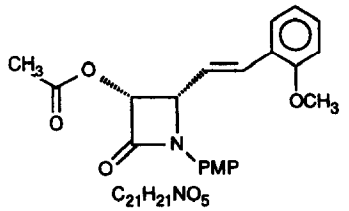
Source of chirality: (+)- (1S)-tricarbonyl [4-methoxy-N-(2-methoxycinnamylidene) aniline] chromium

Absolute configuration: 3R, 4S,1'S

Tricarbonyl [3-acetoxy-1-(4-methoxyphenyl)-4-(η^6-2-methoxystyryl)azetidin-2-one] chromium

C. Baldoli, P. Del Buttero, E. Licandro, S. Maiorana and A. Papagni

Tetrahedron: Asymmetry **1994**, *5*, 809



$C_{21}H_{21}NO_5$

3-Acetoxy-1-(4-methoxyphenyl)-4-(2-methoxystyryl)azetidin-2-one

E.e. ≥ 98% by nmr with $Eu(hfc)_3$

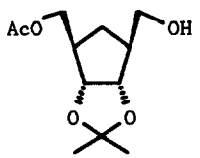
$[\alpha]_D$ = +13 (c 0.2, $CHCl_3$)

Source of chirality: (+)- (1S)- tricarbonyl [4-methoxy-N-(2-methoxycinnamylidene) aniline] chromium

Absolute configuration: 3R, 4S

B. Mohar, A. Štimac, J. Kobe*

Tetrahedron: Asymmetry **1994**, *5*, 863



$C_{12}H_{20}O_5$

(4-Hydroxymethyl-2,3-isopropylidenedioxy-1-cyclopentyl)methyl acetate

E.e. >99% [by ^{1}H-NMR in the presence of $Eu(hfc)_3$]

$[\alpha]_D^{25}$ = +9.2 (c 4.0, $CHCl_3$)

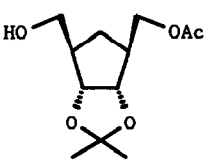
Source of chirality: enzymatic transesterification of *meso*-diol

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

(assigned by chemical correlation)

B. Mohar, A. Štimac, J. Kobe*

Tetrahedron: Asymmetry **1994**, *5*, 863



$C_{12}H_{20}O_5$

(4-Hydroxymethyl-2,3-isopropylidenedioxy-1-cyclopentyl)methyl acetate

E.e. >99% [by ^{1}H-NMR in the presence of $Eu(hfc)_3$]

$[\alpha]_D^{25}$ = -9.3 (c 4.0, $CHCl_3$)

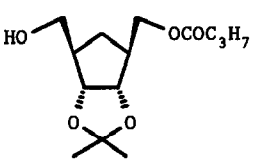
Source of chirality: enzymatic hydrolysis of *meso*-diacetate

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

(assigned by chemical correlation)

B. Mohar, A. Štimac, J. Kobe*

Tetrahedron: Asymmetry **1994**, *5*, 863



$C_{14}H_{24}O_5$

(4-Hydroxymethyl-2,3-isopropylidenedioxy-1-cyclopentyl)methyl butyrate

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

$[\alpha]_D^{25}$ = -9.0 (c 4.0, $CHCl_3$)

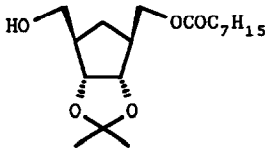
Source of chirality: enzymatic hydrolysis of *meso*-dibutyrate

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

(assigned by chemical correlation)

B. Mohar, A. Štimac, J. Kobe*

Tetrahedron: Asymmetry **1994,** *5,* 863



$C_{18}H_{32}O_5$

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

$[\alpha]_D^{25}$ = -7.3 (c 4.0, $CHCl_3$)

Source of chirality: enzymatic hydrolysis of *meso*-dioctanoate

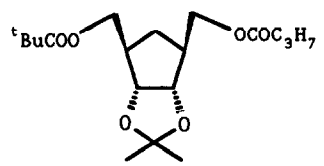
Absolute configuration: 1S,2S,3R,4R

(assigned by chemical correlation)

(4-Hydroxymethyl-2,3-isopropylidenedioxy-1-cyclopentyl)methyl octanoate

B. Mohar, A. Štimac, J. Kobe*

Tetrahedron: Asymmetry **1994,** *5,* 863



$C_{19}H_{32}O_6$

E.e. = 96%

$[\alpha]_D^{25}$ = +1.5 (c 4.0, $CHCl_3$)

Source of chirality: enzymatic hydrolysis

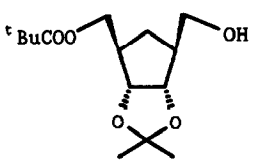
Absolute configuration: 1S,2S,3R,4R

(assigned by chemical correlation)

(4-Pivaloyloxymethyl-2,3-isopropylidenedioxy-1-cyclopentyl)methyl butyrate

B. Mohar, A. Štimac, J. Kobe*

Tetrahedron: Asymmetry **1994,** *5,* 863



$C_{15}H_{26}O_5$

E.e. = 98% [by ^{19}F-NMR of (R)-MTPA ester]

$[\alpha]_D^{25}$ = +9.2 (c 4.0, $CHCl_3$)

Source of chirality: enzymatic hydrolysis

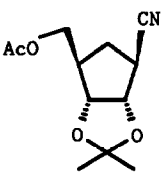
Absolute configuration: 1R,2R,3S,4S

(assigned by chemical correlation)

(4-Hydroxymethyl-2,3-isopropylidenedioxy-1-cyclopentyl)methyl pivaloate

B. Mohar, A. Štimac, J. Kobe*

Tetrahedron: Asymmetry **1994,** *5,* 863



$C_{12}H_{17}NO_4$

E.e. >99%

$[\alpha]_D^{25}$ = -51.3 (c 4.0, $CHCl_3$)

Source of chirality: enzymatic transesterification

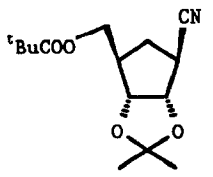
Absolute configuration: 1S,2S,3R,4R

(assigned by chemical correlation)

4-Acetoxymethyl-2,3-(isopropylidenedioxy)cyclopentane-1-carbonitrile

B. Mohar, A. Štimac, J. Kobe*

Tetrahedron: Asymmetry **1994,** *5,* 863



E.e. = 98%

$[\alpha]_D^{25}$ = -30.9 (c 4.0, $CHCl_3$)

Source of chirality: enzymatic hydrolysis

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

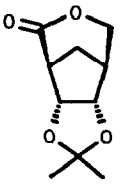
(assigned by chemical correlation)

$C_{15}H_{23}NO_4$

4-Pivaloyloxymethyl-2,3-(isopropylidenedioxy)cyclopentane-1-carbonitrile

B. Mohar, A. Štimac, J. Kobe*

Tetrahedron: Asymmetry **1994,** *5,* 863



E.e. = 96%

$[\alpha]_D^{25}$ = -42.4 (c 1.0, $CHCl_3$)

Source of chirality: enzymatic hydrolysis

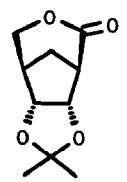
Absolute configuration: 1S,5S,6S,7R

$C_{10}H_{14}O_4$

6,7-(isopropylidenedioxy)-3-oxabicyclo[3.2.1]octan-2-one

B. Mohar, A. Štimac, J. Kobe*

Tetrahedron: Asymmetry **1994,** *5,* 863



E.e. >99%

$[\alpha]_D^{25}$ = +43.5 (c 1.0, $CHCl_3$)

Source of chirality: enzymatic transesterification

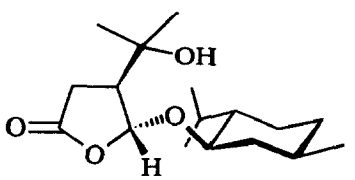
Absolute configuration: 1R,5R,6R,7S

$C_{10}H_{14}O_4$

6,7-(isopropylidenedioxy)-3-oxabicyclo[3.2.1]octan-2-one

Norbert Hoffmann

Tetrahedron: Asymmetry **1994,** *5,* 879



Ee: 100 % (derived from (-)-menthol)

$[\alpha]_D^{21}$ = -150 (C = 1.056, $CHCl_3$)

source of chirality: (-)-menthol

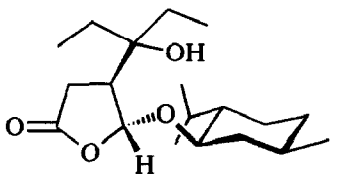
Absolute configuration: 4S, 5R, 1'R, 2'S, 5'R

$C_{17}H_{30}O_4$

4-(2-Hydroxy-2-propyl-)5-(-)-menthyloxy-2-[5]-dihydrofuranone

Norbert Hoffmann

Tetrahedron: Asymmetry **1994,** *5,* 879

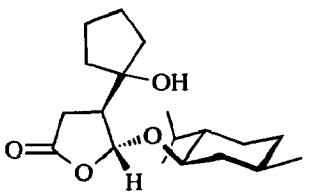


Ee: 100 % (derived from (-)-menthol)
$[\alpha]_D^{21} = -141$ (C = 1.036, $CHCl_3$)
source of chirality: (-)-menthol
Absolute configuration: 4S, 5R, 1'R, 2'S, 5'R

$C_{19}H_{34}O_4$
4-(3-Hydroxy-3-pentyl-)5-(-)-menthyloxy-2-[5]-dihydrofuranone

Norbert Hoffmann

Tetrahedron: Asymmetry **1994,** *5,* 879

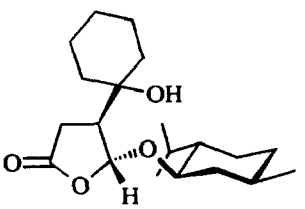


Ee: 100 % (derived from (-)-menthol)
$[\alpha]_D^{21} = -143$ (C = 0.970, $CHCl_3$)
source of chirality: (-)-menthol
Absolute configuration: 4S, 5R, 1'R, 2'S, 5'R

$C_{19}H_{32}O_4$
4-(1-Hydroxy-1-cyclopentyl-)5-(-)-menthyloxy-2-[5]-dihydrofuranone

Norbert Hoffmann

Tetrahedron: Asymmetry **1994,** *5,* 879

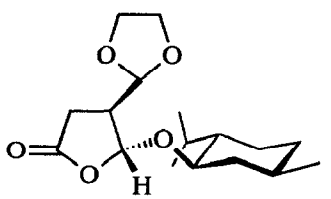


Ee: 100 % (derived from (-)-menthol)
$[\alpha]_D^{22} = -103$ (C = 0.991, $CHCl_3$)
source of chirality: (-)-menthol
Absolute configuration: 4S, 5R, 1'R, 2'S, 5'R

$C_{20}H_{34}O_4$
4-(1-Hydroxy-1-cyclohexyl-)5-(-)-menthyloxy-2-[5]-dihydrofuranone

Norbert Hoffmann

Tetrahedron: Asymmetry **1994,** *5,* 879

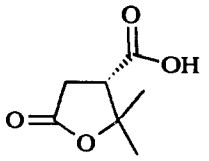


Ee: 100 % (derived from (-)-menthol)
$[\alpha]_D^{21} = -144$ (C = 1.006, $CHCl_3$)
source of chirality: (-)-menthol
Absolute configuration: 4S, 5R, 1'R, 2'S, 5'R

$C_{19}H_{28}O_5$
4-(1,3-Dioxolan-2-yl-)5-(-)-menthyloxy-2-[5]-dihydrofuranone

Norbert Hoffmann

Tetrahedron: Asymmetry **1994,** *5,* 879

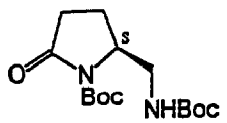


Ee: > 96 %
$[\alpha]_D^{19}$ = -13.7 (C = 1.052, acetone)
source of chirality: (-)-menthol
Absolute configuration: 4S

$C_7H_{10}O_4$
Terebic acid

Janina Altman, Dov Ben-Ishai and Wolfgang Beck

Tetrahedron: Asymmetry **1994,** *5,* 887



$[\alpha]_D^{23}$ - 64.0 (c 2, EtOH)
mp 133- 4°C
Source of chirality: (S)-pyroglutamic acid (Merck - Schuchard)
Absolute configuration: 2*S*

$C_{15}H_{26}N_2O_5$
(*S*)-5-[(*t*-Butoxycarbonyl)aminomethyl]-1-*t*-butoxycarbonyl-2-pyrrolidone

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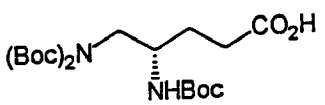
Janina Altman, Dov Ben-Ishai and Wolfgang Beck

Tetrahedron: Asymmetry **1994,** *5,* 887



$[\alpha]_D^{23}$ + 8 (c 2, EtOH)
oil
Source of chirality: (S)-pyroglutamic acid (Merck - Schuchard)
Absolute configuration: 4S

$C_{20}H_{35}N_3O_8$
(S)-N^4,N^5,N^5-Tri-*t*-butoxycarbonyl-4,5-diaminovaleric acid

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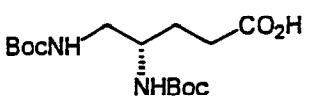
Janina Altman, Dov Ben-Ishai and Wolfgang Beck

Tetrahedron: Asymmetry **1994,** *5,* 887

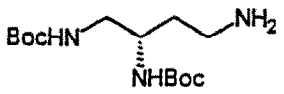


$[\alpha]_D^{23}$ -12.0 (c 2, EtOH)
mp 126-8°C
Source of chirality: (S)-pyroglutamic acid (Merck - Schuchard)
Absolute configuration: 4*S*

$C_{15}H_{28}N_2O_6$
(S)-N^4,N^5-Di-t-butoxycarbonyl-4,5-diaminovaleric acid

Janina Altman, Dov Ben-Ishai
and Wolfgang Beck

Tetrahedron: Asymmetry **1994,** *5,* 887

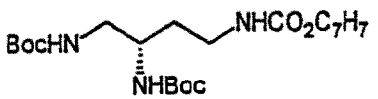


$[\alpha]_D^{23}$ - 28.4 (c 2, EtOH)
mp 78-80°C
Source of chirality: (S)-pyroglutamic acid (Merck-Schuchard)
Absolute configuration: 2*S*

$C_{14}H_{29}N_3O_4$
(S)-N^1,N^2-Di-*t*-butoxycarbonyl-1,2,4-triaminobutane

Janina Altman, Dov Ben-Ishai
and Wolfgang Beck

Tetrahedron: Asymmetry **1994,** *5,* 887



$[\alpha]_D^{23}$ - 23.8 (c 2, EtOH)
mp 122-3°C
Source of chirality: (S)-pyroglutamic acid (Merck-Schuchard)
Absolute configuration: 2*S*

$C_{22}H_{35}N_3O_6$.
(S)-N^1,N^2-Di-*t*-butoxycarbonyl-N^4-benzyloxycarbonyl-1,2,4-triaminobutane

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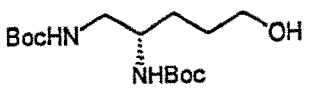
Janina Altman, Dov Ben-Ishai
and Wolfgang Beck

Tetrahedron: Asymmetry **1994,** *5,* 887

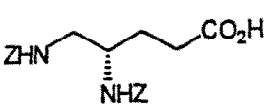


$[\alpha]_D^{23}$ - 13.4
mp 86-8°C
Source of chirality: (S)-pyroglutamic acid (Merck-Schuchard)
Absolute configuration: 2*S*

$C_{15}H_{30}N_3O_5$
(S)-N^4,N^5-Di-*t*-butoxycarbonyl-4,5-diaminopentane-1-ol

Janina Altman, Dov Ben-Ishai
and Wolfgang Beck

Tetrahedron: Asymmetry **1994,** *5,* 887

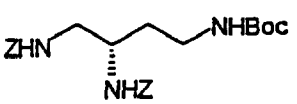


$[\alpha]_D^{21}$ - 7.8 (c 1, EtOH)
mp 136-8°C
Source of chirality: (S)-pyroglutamic acid (Merck-Schuchard)
Absolute configuration: 2*S*

$C_{21}H_{24}N_3O_6$
(S)-N^4,N^5-Dibenzyloxycarbonyl-4,5-diaminovaleric acid

Janina Altman, Dov Ben-Ishai and Wolfgang Beck

Tetrahedron: Asymmetry **1994**, *5*, 887



$[\alpha]_D^{21}$ - 17.4 (c 2, EtOH)
mp 112°C
Source of chirality: (S)-pyroglutamic acid (Merck-Schuchard)
Absolute configuration: 2*S*

$C_{25}H_{33}N_3O_6$
(S)-N^1,N^2-Di-benzyloxycarbonyl-N^4-*t*-butoxycarbonyl-1,2,4-triaminobutane

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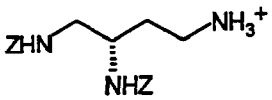
Janina Altman, Dov Ben-Ishai and Wolfgang Beck

Tetrahedron: Asymmetry **1994**, *5*, 887



$[\alpha]_D^{21}$ + 4.1 (c 2, EtOH)
mp 151-5°C
Source of chirality: (S)-pyroglutamic acid (Merck-Schuchard)
Absolute configuration: 2*S*

$C_{20}H_{27}ClN_3O_4 \cdot H_2O$
(S)-N^1,N^2-Di-benzyloxycarbonyl-1,2,4-triaminobutane hydrochloride

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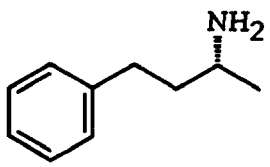
Oppedal, H., Tveit, I.K. and Fiksdahl, A.*

Tetrahedron: Asymmetry **1994**, *5*, 895

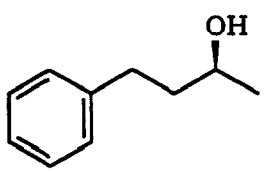


E.e. = 92% (by GLC of diastereomeric *(S)*-α-methoxyphenyl-acetyl amides)
$[\alpha]_D^{20}$ -4.3 (c = 1, $CHCl_3$)
Source of chirality: optical resolution with *(S)*-*N*-Ac-cysteine
Absolute configuration: *R*

$C_{10}H_{15}N$
1-Methyl-3-phenylpropylamine

Oppedal, H., Tveit, I.K. and Fiksdahl, A.*

Tetrahedron: Asymmetry **1994**, *5*, 895

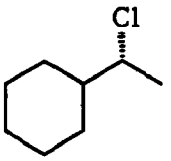


E.e. = 78% (by chiral GLC, cyclodextrin column or GLC of diastereomeric (-)-camphanic acid esters)
$[\alpha]_D^{20}$ +10.4 (c = 1, $CHCl_3$)
Source of chirality: synthesis from *(R)*-1-Methyl-3-phenyl-propylamine.
Absolute configuration: *S*

$C_{10}H_{14}O$
4-Phenyl-2-butanol

Oppedal, H., Tveit, I.K. and Fiksdahl, A.*

Tetrahedron: Asymmetry **1994,** *5,* 895



E.e. = 34% (by chiral GLC, cyclodextrin column)

$[\alpha]_D^{20}$ -5.0 (c = 0.2, $CHCl_3$)

Source of chirality: synthesis from *(S)*-1-cyclohexylethylamine

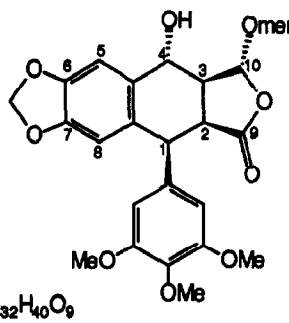
Absolute configuration: *R*

$C_8H_{15}Cl$

1-Cyclohexylethylchloride

A. Pelter, R. S. Ward, Li Qianrong and J. Pis

Tetrahedron: Asymmetry **1994,** *5,* 909



D.e. 100% by n.m.r.

Source of chirality : synthesis from (-)-menthol

Absolute configuration : 1S,2S,3S,4R,10R

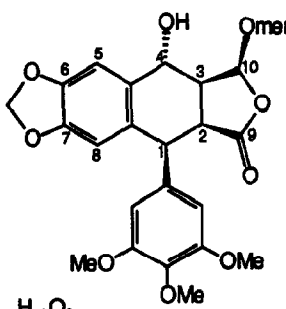
(assignment based on n.m.r.data and NOE experiments)

$[\alpha]_D^{22}$ = 94.87 (c = 0.78, $CHCl_3$)

$C_{32}H_{40}O_9$

A. Pelter, R. S. Ward, Li Qianrong and J. Pis

Tetrahedron: Asymmetry **1994,** *5,* 909



D.e. 100% by n.m.r.

Source of chirality : synthesis from (-)-menthol

Absolute configuration : 1S,2S,3S,4R,10S

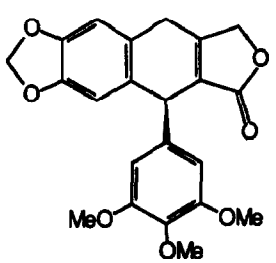
(assignment based on n.m.r.data and NOE experiments)

$[\alpha]_D^{22}$ = - 30.21 (c = 0.48, $CHCl_3$)

$C_{32}H_{40}O_9$

A. Pelter, R. S. Ward, Li Qianrong and J. Pis

Tetrahedron: Asymmetry **1994,** *5,* 909



D.e. 100% by n.m.r.

Source of chirality : synthesis from (-)-menthol

Absolute configuration : 1S

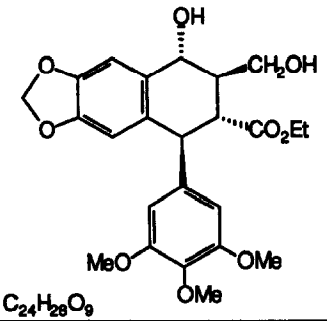
(assignment based on n.m.r.data and structure of precursor)

$[\alpha]_D^{22}$ = - 97.6 (c = 0.54, $CHCl_3$)

$C_{22}H_{20}O_7$

A. Pelter, R. S. Ward, Li Qianrong and J. Pis

Tetrahedron: Asymmetry **1994**, *5*, 909



$C_{24}H_{28}O_9$

D.e. 100% by n.m.r.

Source of chirality : synthesis from (-)-menthol

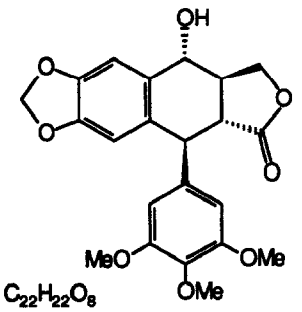
Absolute configuration : 1S,2R,3R,4R

(assignment based on n.m.r.data and structure of precursor)

$[\alpha]_D^{22} = 17.1$ (c = 0.85, $CHCl_3$)

A. Pelter, R. S. Ward, Li Qianrong and J. Pis

Tetrahedron: Asymmetry **1994**, *5*, 909



$C_{22}H_{22}O_8$

D.e. 100% by n.m.r.

Source of chirality : synthesis from (-)-menthol

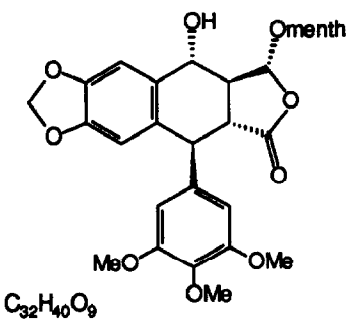
Absolute configuration : 1S,2R,3R,4R

(assignment based on n.m.r.data and structure of precursor)

$[\alpha]_D^{22} = -143$ (c = 0.056, $CHCl_3$)

A. Pelter, R. S. Ward, Li Qianrong and J. Pis

Tetrahedron: Asymmetry **1994**, *5*, 909



$C_{32}H_{40}O_9$

D.e. 100% by n.m.r.

Source of chirality : synthesis from (-)-menthol

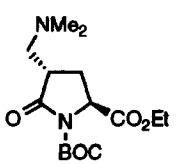
Absolute configuration : 1S,2R,3S,4R,10R

(assignment based on n.m.r.data and structure of precursor)

$[\alpha]_D^{22} = -119$ (c = 0.20, $CHCl_3$)

Tetrahedron: Asymmetry **1994**, *5*, 921

J. Ezquerra, C. Pedregal, I. Micó and C. Nájera



$C_{15}H_{26}N_2O_5$

Ethyl 1-(*tert*-Butyloxycarbonyl)-4-(dimethylamino)pyroglutamate

D. e. >99% [by ^{1}H NMR]

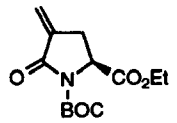
$[\alpha]_D^{25} = -20.1$ (c 1.1, $CHCl_3$)

Source of chirality: pyroglutamic acid

Absolute configuration: 2*S*, 4*R*

Tetrahedron: Asymmetry **1994**, *5*, 921

J. Ezquerra, C. Pedregal, I. Micó and C. Nájera



E. e. = Homochiral
$[\alpha]_D^{25}$ = -13.9 (c 1.1, $CHCl_3$)

Source of chirality: pyroglutamic acid

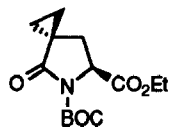
Absolute configuration: 2*S*

$C_{13}H_{19}NO_5$

Ethyl 1-(*tert*-Butyloxycarbonyl)-4-methylenepyroglutamate

Tetrahedron: Asymmetry **1994**, *5*, 921

J. Ezquerra, C. Pedregal, I. Micó and C. Nájera



E. e. = Homochiral
$[\alpha]_D^{25}$ = -29.3 (c 1.5, $CHCl_3$)

Source of chirality: pyroglutamic acid

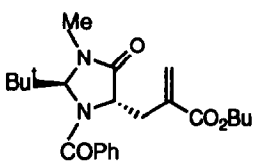
Absolute configuration: 2*S*

$C_{14}H_{21}NO_5$

Ethyl 1-(*tert*-Butyloxycarbonyl)-4,4-ethylenepyroglutamate

Tetrahedron: Asymmetry **1994**, *5*, 921

J. Ezquerra, C. Pedregal, I. Micó and C. Nájera



D. e. > 99% (by capillary GC)
$[\alpha]_D^{25}$ = +78.3 (c 1.5, $CHCl_3$)

mp 107-108°C

Source of chirality: (2*S*)-1-benzoyl-2-(*tert*-butyl)-3-methylimidazolidin-4-one

Absolute configuration: 2*S*, 5*S*

$C_{23}H_{32}N_2O_4$

1-Benzoyl-2-(*tert*-butyl)-5-[2-(butoxycarbonyl)-2-propenyl]-3-methylimidazolidin-4-one

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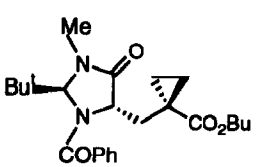
Tetrahedron: Asymmetry **1994**, *5*, 921

J. Ezquerra, C. Pedregal, I. Micó and C. Nájera



D. e. > 99% (by capillary GC)
$[\alpha]_D^{25}$ = +38.7 (c 1.5, $CHCl_3$)

mp 108-110°C

Source of chirality: (2*S*)-1-benzoyl-2-(*tert*-butyl)-3-methylimidazolidin-4-one

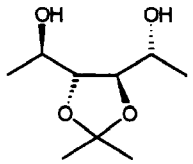
Absolute configuration: 2*S*, 5*S*

$C_{24}H_{34}N_2O_4$

1-Benzoyl-2-(*tert*-butyl)-5-[2-(butoxycarbonyl)-2-cyclopropylethyl]-3-methylimidazolidin-4-one

P. Allevi, M. Anastasia, P. Ciuffreda and A. M. Sanvito

Tetrahedron: Asymmetry **1994,** *5,* 927



$C_9H_{18}O_4$

(2*R*,3*R*,4*R*,5*R*)-3,4-O-(1-methylethylidene)-2,3,4,5-hexanetetraol

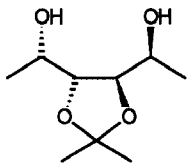
$[\alpha]_D^{20}$ = -9.6 ($CHCl_3$, *c* 1)

Source of Chirality: natural chiral compound (D-mannitol)

Absolute configuration 2*R*,3*R*,4*R*,5*R*

P. Allevi, M. Anastasia, P. Ciuffreda and A. M. Sanvito

Tetrahedron: Asymmetry **1994,** *5,* 927



$C_9H_{18}O_4$

(2*S*,3*R*,4*R*,5*S*)-3,4-O-(1-methylethylidene)-2,3,4,5-hexanetetraol

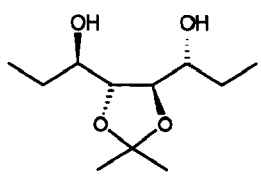
$[\alpha]_D^{20}$ = +23.2 ($CHCl_3$, *c* 1)

Source of Chirality: natural chiral compound (D-mannitol)

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

P. Allevi, M. Anastasia, P. Ciuffreda and A. M. Sanvito

Tetrahedron: Asymmetry **1994,** *5,* 927



$C_{11}H_{22}O_4$

(3*R*,4*R*,5*R*,6*R*)-4,5-O-(1-methylethylidene)-3,4,5,6-decanetetraol

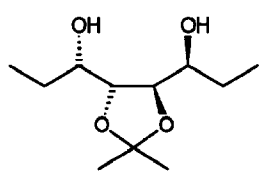
$[\alpha]_D^{20}$ = +10.8 ($CHCl_3$, *c* 1)

Source of Chirality: natural chiral compound (D-mannitol)

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

P. Allevi, M. Anastasia, P. Ciuffreda and A. M. Sanvito

Tetrahedron: Asymmetry **1994,** *5,* 927



$C_{11}H_{22}O_4$

(3*S*,4*R*,5*R*,6*S*)-4,5-O-(1-methylethylidene)-3,4,5,6-decanetetraol

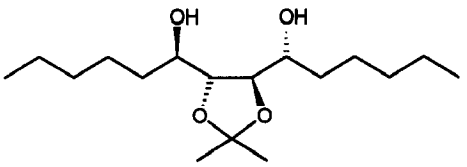
$[\alpha]_D^{20}$ = +18.8 ($CHCl_3$, *c* 1)

Source of Chirality: natural chiral compound (D-mannitol)

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

P. Allevi, M. Anastasia, P. Ciuffreda and A. M. Sanvito

Tetrahedron: Asymmetry **1994**, *5*, 927



$C_{17}H_{34}O_4$

(6*R*,7*R*,8*R*,9*R*)-7,8-O-(1-methylethylidene)-6,7,8,9-tetradecanetetraol

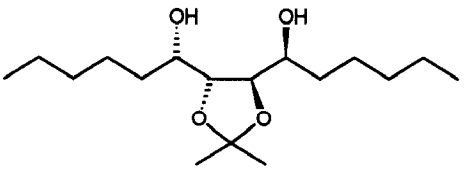
$[\alpha]_D^{20} = +23.9$ ($CHCl_3$, *c* 1)

Source of Chirality: natural chiral compound (D-mannitol)

Absolute configuration 6*R*,7*R*,8*R*,9*R*

P. Allevi, M. Anastasia, P. Ciuffreda and A. M. Sanvito

Tetrahedron: Asymmetry **1994**, *5*, 927



$C_{17}H_{34}O_4$

(6*S*,7*R*,8*R*,9*S*)-7,8-O-(1-methylethylidene)-6,7,8,9-tetradecanetetraol

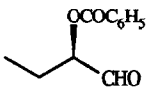
$[\alpha]_D^{20} = +1.4$ ($CHCl_3$, *c* 1)

Source of Chirality: natural chiral compound (D-mannitol)

Absolute configuration 6*S*,7*R*,8*R*,9*S*

P. Allevi, M. Anastasia, P. Ciuffreda and A. M. Sanvito

Tetrahedron: Asymmetry **1994**, *5*, 927



$C_{11}H_{12}O_3$

(2*R*)-2-benzoyloxybutanal

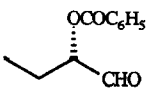
$[\alpha]_D^{20} = +43.2$ ($CHCl_3$, *c* 1)

Source of Chirality: natural chiral compound (D-mannitol)

Absolute configuration 2*R*

P. Allevi, M. Anastasia, P. Ciuffreda and A. M. Sanvito

Tetrahedron: Asymmetry **1994**, *5*, 927



$C_{11}H_{12}O_3$

(2*S*)-2-benzoyloxybutanal

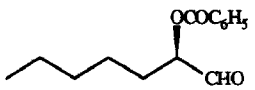
$[\alpha]_D^{20} = -42.4$ ($CHCl_3$, *c* 1)

Source of Chirality: natural chiral compound (D-mannitol)

Absolute configuration 2*S*

P. Allevi, M. Anastasia, P. Ciuffreda and A. M. Sanvito

Tetrahedron: Asymmetry **1994,** *5,* 927



$C_{14}H_{18}O_3$

(2*R*)-2-benzoyloxyheptanal

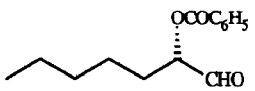
$[\alpha]_D^{20}$=+36.6 ($CHCl_3$, *c* 1)

Source of Chirality: natural chiral compound (D-mannitol)

Absolute configuration 2*R*

P. Allevi, M. Anastasia, P. Ciuffreda and A. M. Sanvito

Tetrahedron: Asymmetry **1994,** *5,* 927



$C_{14}H_{18}O_3$

(2*S*)-2-benzoyloxyheptanal

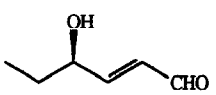
$[\alpha]_D^{20}$=-35.9 ($CHCl_3$, *c* 1)

Source of Chirality: natural chiral compound (D-mannitol)

Absolute configuration 2*S*

P. Allevi, M. Anastasia, P. Ciuffreda and A. M. Sanvito

Tetrahedron: Asymmetry **1994,** *5,* 927



$C_6H_{10}O_2$

(2*R*,4*E*)-4-hydroxyhex-2-enal

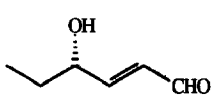
E.e. = XX% [by HPLC and NMR with (*R*)-2-methoxy-2-phenyl-2-(trifluoromethyl)acetyl chloride, Mosher's Method
$[\alpha]_D^{20}$ = -53.0 ($CHCl_3$, *c* 1)

Source of Chirality: natural chiral compound (D-mannitol)

Absolute configuration 2*R*
(assigned by nmr of corresponding Mosher's (*R*)- and (*S*)-esters)

P. Allevi, M. Anastasia, P. Ciuffreda and A. M. Sanvito

Tetrahedron: Asymmetry **1994,** *5,* 927



$C_6H_{10}O_2$

(2*S*,4*E*)-4-hydroxyhex-2-enal

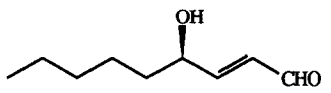
E.e. = XX% [by HPLC and NMR with (*R*)-2-methoxy-2-phenyl-2-(trifluoromethyl)acetyl chloride, Mosher's Method
$[\alpha]_D^{20}$ = +51.6 ($CHCl_3$, *c* 1)

Source of Chirality: natural chiral compound (D-mannitol)

Absolute configuration 2*S*
(assigned by nmr of corresponding Mosher's (*R*)- and (*S*)-esters)

P. Allevi, M. Anastasia, P. Ciuffreda and A. M. Sanvito

Tetrahedron: Asymmetry **1994,** *5,* 927



$C_9H_{16}O_2$

(2*R*,4*E*)-4-hydroxynon-2-enal

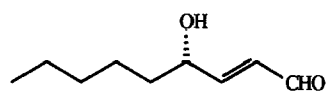
E.e. > 98% [by HPLC and NMR with (*R*)-2-methoxy-2-phenyl-2-(trifluoromethyl)acetyl chloride, Mosher's Method
$[\alpha]_D^{20} = -48.7$ ($CHCl_3$, *c* 1)

Source of Chirality: natural chiral compound (D-mannitol)

Absolute configuration 2*R*
(assigned by nmr of corresponding Mosher's (*R*)- and (*S*)-esters)

P. Allevi, M. Anastasia, P. Ciuffreda and A. M. Sanvito

Tetrahedron: Asymmetry **1994,** *5,* 927



$C_9H_{16}O_2$

(2*S*,4*E*)-4-hydroxynon-2-enal

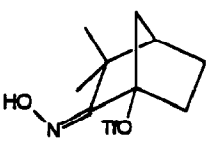
E.e. > 98% [by HPLC and NMR with (*R*)-2-methoxy-2-phenyl-2-(trifluoromethyl)acetyl chloride, Mosher's Method
$[\alpha]_D^{20} = +46.3$ ($CHCl_3$, *c* 1)

Source of Chirality: natural chiral compound (D-mannitol)

Absolute configuration 2*S*
(assigned by nmr of corresponding Mosher's (*R*)- and (*S*)-esters)

A. García Martínez, E. Teso Vilar, A. García Fraile,
S. de la Moya Cerero, C. Díaz Oliva, L. R. Subramanian, C. Maichle.

Tetrahedron: Asymmetry **1994,** *5,* 949

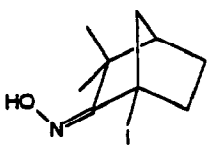


$[\alpha]_D^{20} = -32.2$ (c 1.10, MeOH)
Source of chirality: natural (+)-(1*R*)-1,7,7-trimethyl-2-norbornanone
[(1*R*)-Camphor]
Absolute configuration: 1R,4R

$C_{10}H_{14}F_3O_4S$
3,3-dimethyl-1-trifluoromethylsulfonyloxy-2-norbornanoxime

A. García Martínez, E. Teso Vilar, A. García Fraile,
S. de la Moya Cerero, C. Díaz Oliva, L. R. Subramanian, C. Maichle.

Tetrahedron: Asymmetry **1994,** *5,* 949

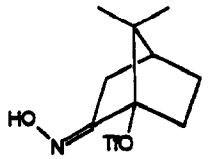


$[\alpha]_D^{20} = -87.1$ (c 0.85, MeOH)
Source of chirality: natural (+)-(1*R*)-1,7,7-trimethyl-2-norbornanone
[(1*R*)-Camphor]
Absolute configuration: 1R,4R

$C_9H_{14}IO$
3,3-dimethyl-1-iodo-2-norbornanoxime

A. García Martínez, E. Teso Vilar, A. García Fraile,
S. de la Moya Cerero, C. Díaz Oliva, L. R. Subramanian, C. Maichle.

Tetrahedron: Asymmetry **1994**, *5*, 949

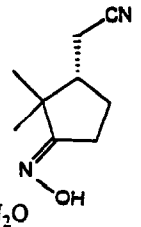


$[\alpha]_D^{20}$= +40.7 (c 1.44, MeOH)
Source of chirality: natural (−)-(1*R*)-1,3,3-trimethyl-2-norbornanone
[(1*R*)-Fenchone]
Absolute configuration: 1R,4S

$C_{10}H_{14}F_3O_4S$
7,7-dimethyl-1-trifluoromethylsulfonyloxy-2-norbornanoxime

A. García Martínez, E. Teso Vilar, A. García Fraile,
S. de la Moya Cerero, C. Díaz Oliva, L. R. Subramanian, C. Maichle.

Tetrahedron: Asymmetry **1994**, *5*, 949

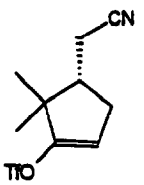


$[\alpha]_D^{20}$= +14.6 (c 3.10, MeOH)
Source of chirality: natural (−)-(1*R*)-1,3,3-trimethyl-2-norbornanone
[(1*R*)-Fenchone]
Absolute configuration: 3S

$C_9H_{14}N_2O$
anti-3-cyanomethyl-2,2-dimethylcyclopentanoxime

A. García Martínez, E. Teso Vilar, A. García Fraile,
S. de la Moya Cerero, C. Díaz Oliva, L. R. Subramanian, C. Maichle.

Tetrahedron: Asymmetry **1994**, *5*, 949

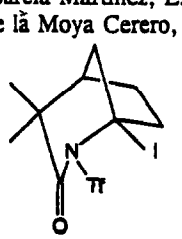


$[\alpha]_D^{20}$= +7.2 (c 0.76, CH_2Cl_2)
Source of chirality: natural (−)-(1*R*)-1,3,3-trimethyl-2-norbornanone
[(1*R*)-Fenchone]
Absolute configuration: 4S

$C_{10}H_{12}F_3NO_3S$
4-cyanomethyl-5,5-dimethyl-1-trifluoromethylsulfonyloxycyclopentene

A. García Martínez, E. Teso Vilar, A. García Fraile,
S. de la Moya Cerero, C. Díaz Oliva, L. R. Subramanian, C. Maichle.

Tetrahedron: Asymmetry **1994**, *5*, 949



$[\alpha]_D^{20}$= -136.0 (c 0.52, MeOH)
Source of chirality: natural (+)-(1*R*)-1,7,7-trimethyl-2-norbornanone
[(1*R*)-Camphor]
Absolute configuration: 1R,5R

$C_{10}H_{13}F_3INO_3S$
4,4-dimethyl-1-iodo-2-trifluoromethylsulfonyl-2-azabicyclo[3.2.1]octan-3-one