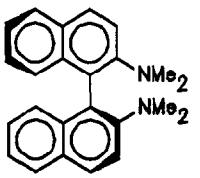
C.Rosini, L.Franzini, A.Iuliano, D.Pini, P.Salvadori

Tetrahedron: Asymmetry **1991**, *2*, 363



(S)–1

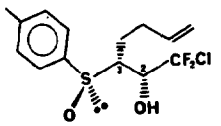
$[\alpha]_D^{25}$=+20 (c=0.06, C_6H_6); m.p.245-248°C
e.e.>95% [by HPLC on Chiralpack OT and PMR analysis in the presence of (R)-mandelic acid].
S configuration assigned because 1 has been prepared by Eschweiler-Clarke reaction on (S)-2,2'-diamino-1,1'-binaphthyl.

^{1}H-NMR: δ= 2.45 (s,12H,N-CH_3), 7.1-7.3 (2m,6H,aromatic), 7.5 (d,2H,aromatic), 7.8-7.9 (2d,4H, peri protons).

(S)-N,N,N',N'-tetramethyl-2,2'-diamino-1,1'-binaphthyl

Tetrahedron: Asymmetry **1991**, *2*, 399

A. Arnone, P. Bravo, F. Viani, G. Cavicchio

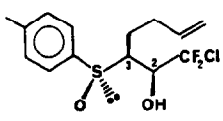


$[\alpha]_D^{25}$ = +148.7 (*c* 0.8, $CHCl_3$)
Source of chirality: (-)-(1*R*)-Menthyl (*S*)-toluene-4-sulfinate
Absolute configuration: 2*R*,3*R*,R_S
^{1}H NMR (δ_H, ppm): 4.46 (H-2) and 2.86 (H-3); $^3J_{2,3}$ = 1.3 Hz
^{19}F NMR (δ_F, ppm): -64.03 (Fa) and -64.55 (Fb)

$C_{14}H_{17}ClF_2O_2S$
(2*R*,3*R*,R_S)-1-chloro-1,1-difluoro-3-[(4-methylphenyl)sulphinyl]hept-6-en-2-ol

Tetrahedron: Asymmetry **1991**, *2*, 399

A. Arnone, P. Bravo, F. Viani, G. Cavicchio

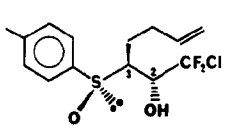


$[\alpha]_D^{25}$ = +74.6 (*c* 1.0, $CHCl_3$)
Source of chirality: (-)-(1*R*)-Menthyl (*S*)-toluene-4-sulfinate
Absolute configuration: 2*S*,3*S*,R_S
^{1}H NMR (δ_H, ppm): 4.75 (H-2) and 3.15 (H-3); $^3J_{2,3}$ = 1.4 Hz
^{19}F NMR (δ_F, ppm): -64.00 (Fa) and -64.78 (Fb)

$C_{14}H_{17}ClF_2O_2S$
(2*S*,3*S*,R_S)-1-chloro-1,1-difluoro-3-[(4-methylphenyl)sulphinyl]hept-6-en-2-ol

Tetrahedron: Asymmetry **1991**, *2*, 399

A. Arnone, P. Bravo, F. Viani, G. Cavicchio

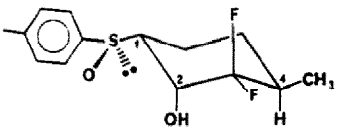


$[\alpha]_D^{25}$ = +109.6 (*c* 1.3, $CHCl_3$)
Source of chirality: (-)-(1*R*)-Menthyl (*S*)-toluene-4-sulfinate
Absolute configuration: 2*R*,3*S*,R_S
^{1}H NMR (δ_H, ppm): 4.32 (H-2) and 2.96 (H-3); $^3J_{2,3}$ = 5.1 Hz
^{19}F NMR (δ_F, ppm): -61.34 (Fa) and -63.25 (Fb)

$C_{14}H_{17}ClF_2O_2S$
(2*R*,3*S*,R_S)-1-chloro-1,1-difluoro-3-[(4-methylphenyl)sulphinyl]hept-6-en-2-ol

Tetrahedron: Asymmetry **1991**, *2*, 399

A. Arnone, P. Bravo, F. Viani, G. Cavicchio

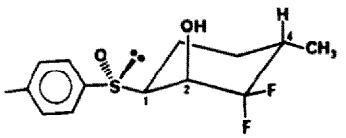


$[\alpha]_D^{25}$ = +245.1 (*c* 1.0, $CHCl_3$)
Source of chirality: (-)-(1*R*)-Menthyl (*S*)-toluene-4-sulfinate
Absolute configuration: 1*R*,2*S*,4*R*,R_S
^{1}H NMR (δ_H, ppm): 4.33 (H-2), 2.58 (H-1), and 2.35 (H-4)
^{19}F NMR (δ_F, ppm): -113.6 (F_{eq}) and -125.4 (F_{ax})

$C_{14}H_{18}F_2O_2S$
(1*R*,2*S*,4*R*,R_S)-3,3-difluoro-2-hydroxy-4-methyl-1-[(4-methylphenyl)sulphinyl]cyclohexane

Tetrahedron: Asymmetry **1991**, *2*, 399

A. Arnone, P. Bravo, F. Viani, G. Cavicchio

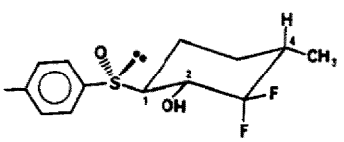


$[\alpha]_D^{25}$ = +133.7 (*c* 1.0, $CHCl_3$)
Source of chirality: (-)-(1*R*)-Menthyl (*S*)-toluene-4-sulfinate
Absolute configuration: 1*S*,2*R*,4*S*,R_S
^{1}H NMR (δ_H, ppm): 4.10 (H-2), 2.68 (H-1), and 2.29 (H-4)
^{19}F NMR (δ_F, ppm): -113.08 (F_{eq}) and -125.01 (F_{ax})

$C_{14}H_{18}F_2O_2S$
(1*S*,2*R*,4*S*,R_S)-3,3-difluoro-2-hydroxy-4-methyl-1-[(4-methylphenyl)sulphinyl]cyclohexane

Tetrahedron: Asymmetry **1991**, *2*, 399

A. Arnone, P. Bravo, F. Viani, G. Cavicchio

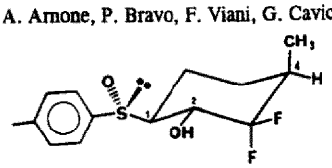


$[\alpha]_D^{25}$ = +217.3 (*c* 1.1, $CHCl_3$)
Source of chirality: (-)-(1*R*)-Menthyl (*S*)-toluene-4-sulfinate
Absolute configuration: 1*S*,2*S*,4*S*,R_S
^{1}H NMR (δ_H, ppm): 4.10 (H-2), 2.72 (H-1), and 1.80 (H-4)
^{19}F NMR (δ_F, ppm): -113.94 (F_{eq}) and -135.77 (F_{ax})

$C_{14}H_{18}F_2O_2S$
(1*S*,2*S*,4*S*,R_S)-3,3-difluoro-2-hydroxy-4-methyl-1-[(4-methylphenyl)sulphinyl]cyclohexane

Tetrahedron: Asymmetry **1991**, *2*, 399

A. Arnone, P. Bravo, F. Viani, G. Cavicchio

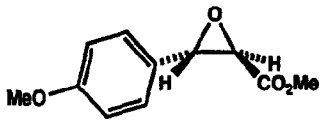


$[\alpha]_D^{25}$ = +190.5 (*c* 0.7, $CHCl_3$)
Source of chirality: (-)-(1*R*)-Menthyl (*S*)-toluene-4-sulfinate
Absolute configuration: 1*S*,2*S*,4*R*,R_S
^{1}H NMR (δ_H, ppm): 4.21 (H-2), 2.75 (H-1), and 2.34 (H-4)
^{19}F NMR (δ_F, ppm): -113.24 (F_{eq}) and -116.22 (F_{ax})

$C_{14}H_{18}F_2O_2S$
(1*S*,2*S*,4*R*,R_S)-3,3-difluoro-2-hydroxy-4-methyl-1-[(4-methylphenyl)sulphinyl]cyclohexane

M. Yamamoto, M. Hayashi, M. Masaki and H. Nohira

Tetrahedron: Asymmetry **1991,** *2*, 403



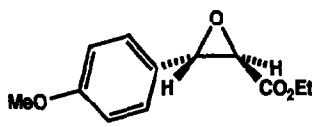
$C_{11}H_{12}O_4$

(2*R*,3*S*)-methyl 3-(4-methoxyphenyl)glycidate

E.e. = 99.1% (by HPLC on a CHIRALCEL OD column)
$[\alpha]_D^{23}$ -160 (c 0.892, $CHCl_3$)
Source of Chirality : resolution
Absolute configuration 2*R*,3*S*; $[\alpha]_D$ of lit.

M. Yamamoto, M. Hayashi, M. Masaki and H. Nohira

Tetrahedron: Asymmetry **1991,** *2*, 403



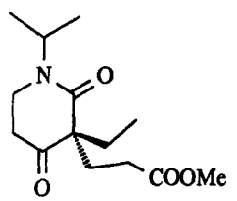
$C_{12}H_{14}O_4$

(2*R*,3*S*)-ethyl 3-(4-methoxyphenyl)glycidate

E.e. = 97.7% (by HPLC on a CHIRALCEL OD column)
$[\alpha]_D^{23}$ -152 (c 1.10, $CHCl_3$)
Source of Chirality : resolution
Absolute configuration 2*R*,3*S*; $[\alpha]_D$ of lit.

L. Ambroise, G. Revial, C. Chassagnard, J. d'Angelo

Tetrahedron: Asymmetry **1991,** *2*, 407



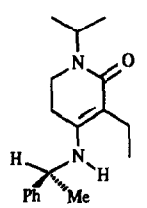
$C_{14}H_{23}NO_4$

3-Ethyl-3-(2-methoxycarbonylethyl)-N-isopropyl piperidine-2,4-dione

ee 88 %
$[\alpha]_D^{20}$ + 5.9 (c = 4.8, MeOH)
source of chirality : (S)-(-)-
1-phenylethylamine (93 % ee)
absolute configuration : 3R

L. Ambroise, G. Revial, C. Chassagnard, J. d'Angelo

Tetrahedron: Asymmetry **1991,** *2*, 407



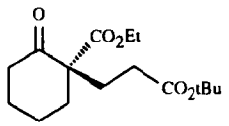
$C_{18}H_{26}N_2O$

3-Ethyl-1-isopropyl-4-[(1'-phenylethyl)amino]-1,2,5,6-tetrahydropyridin-2-one

ee 93 %
$[\alpha]_D^{20}$ = -7.0 (c 3,8 MeOH)
source of chirality : (*S*)-(–)-1-phenyl-
ethylamine (93 % ee)
absolute configuration : S

A. Guingant and H. Hammami

Tetrahedron: Asymmetry **1991**, *2*, 411



E.e. = 90 % [by optical rotation]

$[\alpha]_D$ = -71.6 (c 1.3, $CHCl_3$)

source of chirality : asymm. synthesis (Michael reaction)

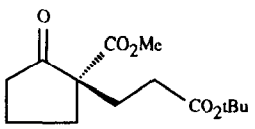
absolute configuration 2S

$C_{16}H_{26}O_5$

(−)-2-(2 carbo-*tert*-butoxyethyl)-2-(carboethoxy)cyclohexanone

A. Guingant and H. Hammami

Tetrahedron: Asymmetry **1991**, *2*, 411



E.e. = 85 % [by G.C on a chiral capillary column]

$[\alpha]_D$ = +18.5 (c 2.4, EtOH)

source of chirality : asymm. synthesis (Michael reaction)

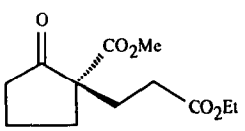
absolute configuration 2S

$C_{14}H_{22}O_5$

(+)-2-(2-carbo-*tert*-butoxyethyl)-2-(carbomethoxy)cyclopentanone

A. Guingant and H. Hammami

Tetrahedron: Asymmetry **1991**, *2*, 411



E.e. = 65 % [by G.C on a chiral capillary column]

$[\alpha]_D$ = +10.2 (c 1.8, $CHCl_3$)

source of chirality : asymm. synthesis (Michael reaction)

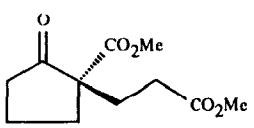
absolute configuration 2S

$C_{12}H_{18}O_5$

(+)-2-(2-carboethoxyethyl)-2-(carbomethoxy)cyclopentanone

A. Guingant and H. Hammami

Tetrahedron: Asymmetry **1991**, *2*, 411



E.e. = 70 % [by nmr with $Eu(tfc)_3$]

$[\alpha]_D$ = +12.6 (c 2.8, CCl_4)

source of chirality : asymm. synthesis (Michael reaction)

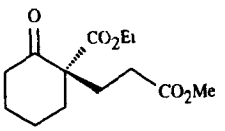
absolute configuration 2S

$C_{11}H_{16}O_5$

(+)-2-(2 carbomethoxyethyl)-2-(carbomethoxy)cyclopentanone

A. Guingant and H. Hammami

Tetrahedron: Asymmetry **1991,** 2, 411



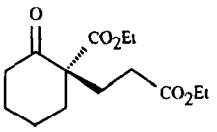
E.e. = 80 % [by optical rotation]
$[\alpha]_D$ = -78.3 (c 1.5, $CHCl_3$)
source of chirality : asymm. synthesis (Michael reaction)
absolute configuration 2S

$C_{13}H_{20}O_5$

(–)-2-(2 carbomethoxyethyl)-2-(carboethoxy)cyclohexanone

A. Guingant and H. Hammami

Tetrahedron: Asymmetry **1991,** 2, 411



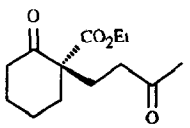
E.e. = 79 % [by GC on a chiral capillary column]
$[\alpha]_D$ = -79.2 (c 1.4, $CHCl_3$)
source of chirality : asymm. synthesis (Michael reaction)
absolute configuration 2S

$C_{14}H_{22}O_5$

(–)-2-(2 carboethoxyethyl)-2-(carboethoxy)cyclohexanone

A. Guingant and H. Hammami

Tetrahedron: Asymmetry **1991,** 2, 411



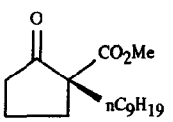
E.e. = 79 % [by G.C on a chiral capillary column]
$[\alpha]_{578}^{20}$ = -76.2 (c 2.2, CCl_4)
source of chirality : asymm. synthesis (Michael reaction)
absolute configuration 2S

$C_{13}H_{20}O_4$

(–)-2-(3-oxobutyl)-2-(carboethoxy)cyclohexanone

A. Guingant

Tetrahedron: Asymmetry **1991,** 2, 415



E.e. > 95 % [by nmr with $Eu(hfc)_3$]
$[\alpha]_D$ = +21.4 (c 1.2, $CHCl_3$)
source of chirality : asymm. synthesis

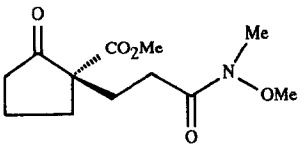
absolute configuration 2R

$C_{16}H_{28}O_3$

(+)-2-nonyl-2-(carbomethoxy)cyclopentanone

A. Guingant

Tetrahedron: Asymmetry **1991,** *2*, 415



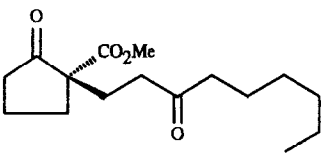
E.e. > 95 % (by optical rotation)
$[\alpha]_D$ = +19.6 (c 6, EtOH)
source of chirality : asymm. synthesis
absolute configuration 2S

$C_{12}H_{22}NO_4$

(+)-2-(3-N-methoxy-N-methylamino-3-oxopropyl)
-2-(carbomethoxy)cyclopentanone

A. Guingant

Tetrahedron: Asymmetry **1991,** *2*, 415



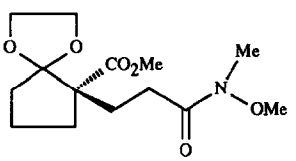
E.e. > 95 % [by nmr with $Eu(hfc)_3$]
$[\alpha]_D$ = +16.5 (c 2.8, EtOH)
source of chirality : asymm. synthesis
absolute configuration 2S

$C_{16}H_{26}O_4$

(+)-2-(3-oxononyl)-2-(carbomethoxy)cyclopentanone

A. Guingant

Tetrahedron: Asymmetry **1991,** *2*, 415



E.e. > 95 % (estimated from the ee value of its precursor)
$[\alpha]_D$ = +10.3 (c 2.2, EtOH)
source of chirality : asymm. synthesis

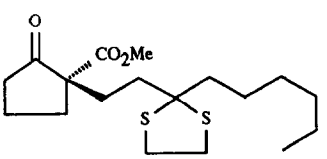
absolute configuration 2S

$C_{14}H_{23}NO_6$

(+)-1,1-ethylenedioxy-2-(3-N-methoxy-N-methylamino-3-oxopropyl)
-2-(carbomethoxy)cyclopentane

A. Guingant

Tetrahedron: Asymmetry **1991,** *2*, 415



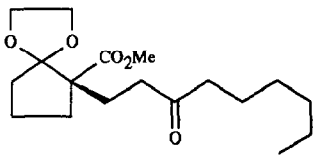
E.e. > 95 % [by nmr of a precursor]
$[\alpha]_D$ = +27.4 (c 1.5, EtOH)
source of chirality : asymm. synthesis
absolute configuration 2S

$C_{18}H_{30}O_3S_2$

(+)-2-(3,3-ethylenedithiononyl)-2-(carbomethoxy)cyclopentanone

A. Guingant

Tetrahedron: Asymmetry **1991,** *2*, 415



E.e. > 95 % (estimated from the ee value of its precursor)
$[\alpha]_D$ = +14.0 (c 4.5 EtOH)
source of chirality : asymm. synthesis

absolute configuration 2S

$C_{18}H_{30}O_5$

(+)-1,1-ethylenedioxy-2-(3-oxononyl)-2-(carbomethoxy)cyclopentane

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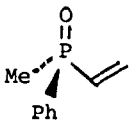
K.M.Pietrusiewicz, M.Zabłocka, W.Wieczorek and A.Brandi

Tetrahedron: Asymmetry **1991,** *2*, 419



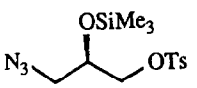
E.e. = 100%
$[\alpha]_D$= -80 (c 2.6, $CHCl_3$)
Source of chirality: synthetic
Absolute configuration: S_P

$C_9H_{11}OP$

Methylphenylvinylphosphine oxide

K. I. Sutowardoyo and D. Sinou

Tetrahedron: Asymmetry **1991,** *2*, 437



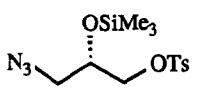
E.e. = 93 % (by ^1H NMR of Mosher's ester)
$[\alpha]_D^{25}$ = + 10.4 (*c* 1.5, $CHCl_3$)
Source of chirality: (*R*)-glycidyl tosylate (e.e. 93 %)

$C_{13}H_{21}N_3O_4SSi$

(*R*)-1-Azido-2-trimethylsilyloxy-3-tosyloxypropane

K. I. Sutowardoyo and D. Sinou

Tetrahedron: Asymmetry **1991,** *2*, 437



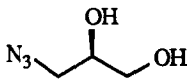
E.e. = 93 % (by ^1H NMR of Mosher's ester)
$[\alpha]_D^{25}$ = - 10.4 (*c* 1.5, $CHCl_3$)
Source of chirality: (*S*)-glycidyl tosylate (e.e. 95 %)

$C_{13}H_{21}N_3O_4SSi$

(*S*)-1-Azido-2-trimethylsilyloxy-3-tosyloxypropane

K. I. Sutowardoyo and D. Sinou

Tetrahedron: Asymmetry **1991,** *2*, 437



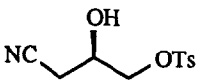
$C_3H_7N_3O_2$

(*R*)-1-Azido-2,3-dihydroxypropane

E.e. = 90 % (by ^1H NMR of bis-Mosher's ester)
$[\alpha]_D^{25}$ = +0.7 (*c* 1, $CHCl_3$)
Source of chirality: (*R*)-glycidol (e.e. 91 %)

K. I. Sutowardoyo and D. Sinou

Tetrahedron: Asymmetry **1991,** *2*, 437



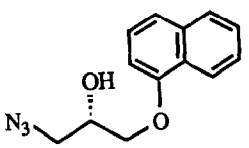
$C_{11}H_{13}NO_4S$

(*R*)-1-Cyano-2-hydroxy-3-tosyloxypropane

E.e. = 90 % (by ^1H NMR of Mosher's ester)
$[\alpha]_D^{25}$ = +2.7 (*c* 1, $CHCl_3$)
Source of chirality: (*R*)-glycidyl tosylate (e.e. 93 %)

K. I. Sutowardoyo and D. Sinou

Tetrahedron: Asymmetry **1991,** *2*, 437



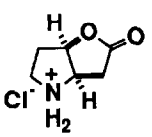
$C_{13}H_{13}N_3O_2$

(*S*)-1-Azido-3-naphtyloxy-2-hydroxypropane

E.e. = 94 % (by ^1H NMR of Mosher's ester)
$[\alpha]_D^{25}$ = - 12.4 (*c* 1, $CHCl_3$)
Source of chirality: (*S*)-glycidyl tosylate (e.e. 95 %)

H. Takahata, Y. Banba, and Y. Momose

Tetrahedron: Asymmetry **1991,** *2*, 445



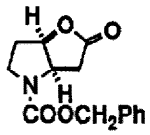
$C_6H_{10}ClNO_2$

(1*R*,5*R*)-2-oxa-6-azabicyclo[3.3.0]octan-3-one hydrochloride

E.e.= >92%
$[\alpha]_D^{23}$ +45.8 (*c* 0.56, MeOH)
Source of chirality: Katsuki-Sharpless kinetic resolution
Absolute configuration: 1*R*,5*R*

H. Takahata, Y. Banba, and Y. Momose

Tetrahedron: Asymmetry **1991,** *2*, 445



E.e= >92%

$[\alpha]_D^{26}$ -122.3 (*c* 4.7, $CHCl_3$)

Source of chirality: Katsuki-Sharpless kinetic resolution

Absolute configuration: 1*R*,5*R*

$C_{14}H_{15}NO_4$

(1*R*,5*R*)-benzyl 3-oxo-2-oxa-6-azabicyclo[3.3.0]octane-6-carboxylate

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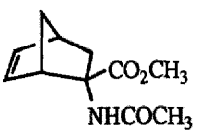
C. Cativiela, M. P. López, J. A. Mayoral.

Tetrahedron: Asymmetry **1991,** *2*, 449



Absolute configuration: 1S,2S,4S

(assigned by comparing with the corresponding hydrogenated amino acid)

^{1}H-NMR [Eu(tfc)$_3$ /S molar relationship = 0.85, CD_3CN) :

$NHCOCH_3$: 5.05 ppm ; CO_2CH_3 : 4.75 ppm

$[\alpha]_D^{24}$ (c = 17.9 x 10^{-1}, MeOH) ; - 97.3 ± 0.5

$C_{11}H_{15}NO_3$

Methyl (1S, 2S, 4S)-2-acetamidobicyclo[2.2.1]hept-5-ene-2-carboxylate

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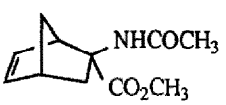
C. Cativiela, M. P. López, J. A. Mayoral.

Tetrahedron: Asymmetry **1991,** *2*, 449



Absolute configuration: 1R,2S,4R

(assigned by comparing with the corresponding hydrogenated amino acid)

^{1}H-NMR [Eu(tfc)$_3$ /S molar relationship = 0.85, CD_3CN) :

$NHCOCH_3$: 5.295 ppm ; CO_2CH_3 : 5.07 ppm

$[\alpha]_D^{24}$ (c = 12.75 x 10^{-1}, MeOH) ; +72.5 ± 0.5

$C_{11}H_{15}NO_3$

Methyl (1R, 2S, 4R)-2-acetamidobicyclo[2.2.1]hept-5-ene-2-carboxylate

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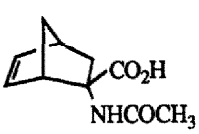
C. Cativiela, M. P. López, J. A. Mayoral.

Tetrahedron: Asymmetry **1991,** *2*, 449



Absolute configuration: 1S,2S,4S

(assigned by comparing with the corresponding methyl ester)

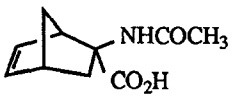
$[\alpha]_D^{24}$ (c =12 x 10^{-1}, MeOH) : - 106.2 ± 0.5

$C_{10}H_{13}NO_3$

(1S, 2S, 4S)-2-acetamidobicyclo[2.2.1]hept-5-ene-2-carboxylic acid

C. Cativiela, M. P. López, J. A. Mayoral.

Tetrahedron: Asymmetry **1991**, *2*, 449



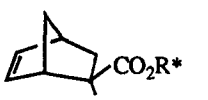
Absolute configuration: 1R,2S,4R
(assigned by comparing with the corresponding methyl ester)
$[\alpha]_D^{24}$ (c = 11.4 x 10^{-1}, MeOH) : +156.0 ± 0.5

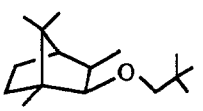
$C_{10}H_{13}NO_3$

(1R, 2S, 4R)-2-acetamidobicyclo[2.2.1]hept-5-ene-2-carboxylic acid

C. Cativiela, M. P. López, J. A. Mayoral.

Tetrahedron: Asymmetry **1991**, *2*, 449



R* = 

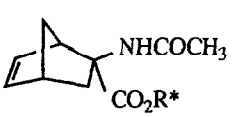
Absolute configuration: 1S,2S,4S
(assigned by comparing with the corresponding methyl ester)
$[\alpha]_D^{24}$ (c = 7.9 x 10^{-1}, MeOH) : - 61.4 ± 0.5

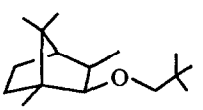
$C_{25}H_{39}NO_4$

(1S, 2S, 4S)-2-acetamidobicyclo[2.2.1]hept-5-ene-2-carboxylate of (-)-cis-3-hydroxy isobornyl neopentyl ether

C. Cativiela, M. P. López, J. A. Mayoral.

Tetrahedron: Asymmetry **1991**, *2*, 449



R* = 

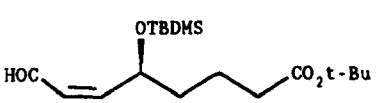
Absolute configuration: 1R,2S,4R
(assigned by comparing with the corresponding methyl ester)
$[\alpha]_D^{24}$ (c = 6.4 x 10^{-1} , MeOH) : +32.8± 0.5

$C_{25}H_{39}NO_4$

(1R, 2S,4R)-2-acetamidobicyclo[2.2.1]hept-5-ene-2-carboxylate of (-)-cis-3-hydroxy isobornyl neopentyl ether

G. Solladié, C. Hamdouchi, C. Ziani-Cherif

Tetrahedron: Asymmetry **1991**, *2*, 457



e.e = 92%

$[\alpha]_D$ = + 26 (c=1, $CHCl_3$)

Source of chirality: asymmetric reduction of the β-ketosulfoxide

Absolute configuration: S

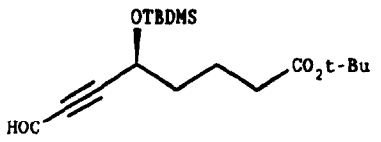
(assigned from the reduction mechanism)

$C_{18}H_{34}O_4Si$

(5S,6Z) t-butyl 5-t-butyldimethyl silyloxy-7-formyl-6-hexenoate

G. Solladié, C. Hamdouchi, C. Ziani-Cherif

Tetrahedron: Asymmetry **1991**, *2*, 457



$C_{18}H_{32}O_4Si$

(S) t-butyl 5-t-butyldimethyl-silyloxy-7-formyl-6-heptynoate

e.e = 92%

$[\alpha]_D$ = - 28 (c=1, $CHCl_3$)

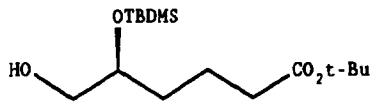
Source of chirality: asymmetric reduction of the β-ketosulfoxide

Absolute configuration: S

(assigned from the reduction mechanism)

G. Solladié, C. Hamdouchi, C. Ziani-Cherif

Tetrahedron: Asymmetry **1991**, *2*, 457



$C_{16}H_{34}O_4Si$

(S) t-butyl 6-hydroxy-5-t-butyldimethyl-silyloxy hexanoate

e.e = 92%

$[\alpha]_D$ = + 5 (c=1, $CHCl_3$)

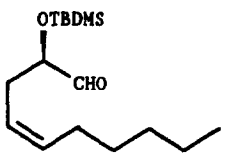
Source of chirality: asymmetric reduction of the β-ketosulfoxide

Absolute configuration: S

(assigned from the reduction mechanism)

G. Solladié, C. Hamdouchi, C. Ziani-Cherif

Tetrahedron: Asymmetry **1991**, *2*, 457



$C_{16}H_{32}O_2Si$

2(R),4(Z)-2-t-butyldimethylsilyloxy-4-decenal

e.e > 95% (NMR)

$[\alpha]_D$ = + 7.9 (c=1, $CHCl_3$)

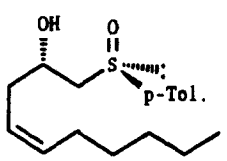
Source of chirality: asymmetric reduction of the β-ketosulfoxide

Absolute configuration: R

(assigned from the reduction mechanism)

G. Solladié, C. Hamdouchi, C. Ziani-Cherif

Tetrahedron: Asymmetry **1991**, *2*, 457



$C_{17}H_{26}O_2S$

[2(S),4(Z),S(R)] 1-p-tolylsulfinyl 4-nonen-2-ol

e.e > 95% (NMR)

$[\alpha]_D$ = + 179 (c=2.8, acetone)

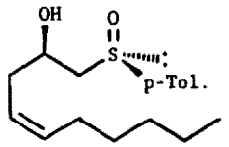
Source of chirality: asymmetric reduction of the β-ketosulfoxide

Absolute configuration: R_sS

(assigned from the reduction mechanism)

G.Solladié, C.Hamdouchi, C.Ziani-Cherif

Tetrahedron: Asymmetry **1991**, *2*, 457



$C_{17}H_{26}O_2S$

[2(R),4(Z),S(R)] 1-p-tolylsulfinyl 4-decen-2-ol

e.e > 95% (NMR)

$[\alpha]_D$= + 99 (c=2.3, acetone)

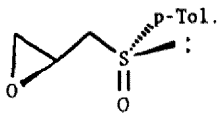
Source of chirality: asymmetric reduction of the β-ketosulfoxide

Absolute configuration : R_SR

(assigned from the reduction mechanism)

G.Solladié, C.Hamdouchi, C.Ziani-Cherif

Tetrahedron: Asymmetry **1991**, *2*, 457



$C_{10}H_{12}O_2S$

[2(S),S(R)] 2-(p-tolylsulfinyl)methyl oxirane

e.e> 98% (NMR)

$[\alpha]_D$= + 239 (c=2, acetone)

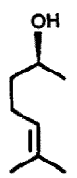
Source of chirality: asymmetric reduction of the β-ketosulfoxide

Absolute configuration: R_SS

(assigned from the reduction mechanism)

E.Schwab, A.Bernreuther, P.Puapoomchareon
K.Mori, P.Schreier

Tetrahedron: Asymmetry **1991**, *2*, 471



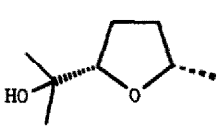
$C_8H_{16}O$

2-Methyl-2-hepten-6-ol (Sulcatol)

E.e. = 90% [by GC after derivatization with (R)-(+)-1-phenylethylisocyanate]
Source of chirality: Microbial conversion
Absolute configuration: 2S

E.Schwab, A.Bernreuther, P.Puapoomchareon
K.Mori, P.Schreier

Tetrahedron: Asymmetry **1991**, *2*, 471



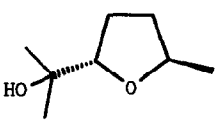
$C_8H_{16}O_2$

2-(1-Hydroxy-1-methylethyl)-5-methyltetrahydrofuran

E.e. = 46% [by chiral GC with CP-Cyclodextrin-2,3,6-M-19]
Source of chirality: Microbial conversion
Absolute configuration: 2R,5R

E.Schwab, A.Bernreuther, P.Puapoomchareon
K.Mori, P.Schreier

Tetrahedron: Asymmetry **1991**, *2*, 471



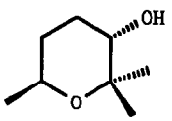
E.e. = 80% [by chiral GC with CP-Cyclodextrin-2,3,6-M-19]
Source of chirality: Microbial conversion
Absolute configuration: 2R,5S

$C_8H_{16}O_2$

2-(1-Hydroxy-1-methylethyl)-5-methyltetrahydrofuran

E.Schwab, A.Bernreuther, P.Puapoomchareon
K.Mori, P.Schreier

Tetrahedron: Asymmetry **1991**, *2*, 471



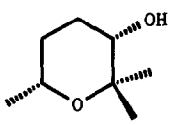
E.e. = 60% [by chiral GC with CP-Cyclodextrin-2,3,6-M-19]
Source of chirality: Microbial conversion
Absolute configuration: 3S,6S

$C_8H_{16}O_2$

Tetrahydro-2,2,6-trimethyl-2H-pyran-3-ol

E.Schwab, A.Bernreuther, P.Puapoomchareon
K.Mori, P.Schreier

Tetrahedron: Asymmetry **1991**, *2*, 471



E.e. = 56% [by chiral GC with CP-Cyclodextrin-2,3,6-M-19]
Source of chirality: Microbial conversion
Absolute configuration: 3S,6R

$C_8H_{16}O_2$

Tetrahydro-2,2,6-trimethyl-2H-pyran-3-ol