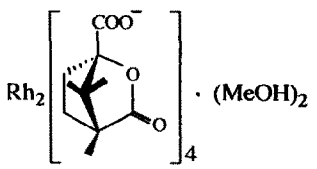
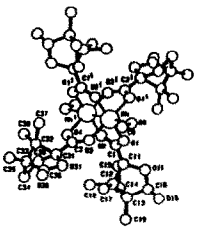
B. Kojić-Prodić, R. Marčec, B. Nigović, Z. Raza, V. Šunjić

Tetrahedron: Asymmetry **1992**, *3*, 1





CD λ_{max} in MeOH ($\Delta\varepsilon$):
507.5 (–0,33),
458.0 (–0.25),
301.5 (–0.09).
Source of chirality:
(1S,4R)-camphanic acid

$C_{42}H_{60}O_{18}Rh_2$
Tetrakis (μ-3R,6S-[2,1,2]-6,7,7-trimethyl-1-oxoheptan-3-one-6-carboxylato)-dirhodium (II) dimethanolate

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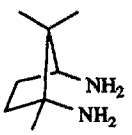
H. Urabe, T. Yamakawa, F. Sato

Tetrahedron: Asymmetry **1992**, *3*, 5

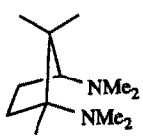


E.e. > 95% (by ^{1}H nmr of a derivative)
$[\alpha]_D^{25}$ +35 (*c* 1.0, EtOH)
Source of chirality: (+)-camphoric acid
((1*R*, 3*S*)-1,2,2-trimethyl-1,3-cyclopentane-dicarboxylic acid; $[\alpha]_D^{20}$ +46.9 (*c* 5, EtOH))
Absolute configuration: 1*R*, 3*S*
(assigned based on the reaction mechanism)

$C_8H_{18}N_2$
(1*R*, 3*S*)-1,2,2-Trimethyl-1,3-cyclopentanediamine

H. Urabe, T. Yamakawa, F. Sato

Tetrahedron: Asymmetry **1992**, *3*, 5



E.e. > 95% (by ^{1}H nmr analysis of the mandelic acid salt)
$[\alpha]_D^{25}$ +35.3 (*c* 1.0, EtOH)
Source of chirality: (+)-camphoric acid
((1*R*, 3*S*)-1,2,2-trimethyl-1,3-cyclopentane-dicarboxylic acid; $[\alpha]_D^{20}$ +46.9 (*c* 5, EtOH))
Absolute configuration: 1*R*, 3*S*
(assigned based on the reaction mechanism)

$C_{12}H_{26}N_2$
N,*N*,*N*′,*N*′-Tetramethyl-(1*R*, 3*S*)-1,2,2-trimethyl-1,3-cyclopentanediamine

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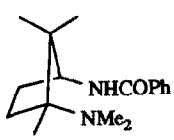
H. Urabe, T. Yamakawa, F. Sato

Tetrahedron: Asymmetry **1992**, *3*, 5

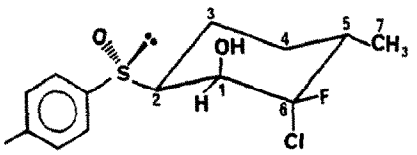


E.e. > 95% (by ^{1}H nmr of a precursor)
$[\alpha]_D^{25}$ +30 (*c* 0.6, $CHCl_3$)
Source of chirality: (+)-camphoric acid
((1*R*, 3*S*)-1,2,2-trimethyl-1,3-cyclopentane-dicarboxylic acid; $[\alpha]_D^{20}$ +46.9 (*c* 5, EtOH))
Absolute configuration: 1*R*, 3*S*
(assigned based on the reaction mechanism)

$C_{17}H_{26}N_2O$
3-(Benzoylamino)-1-(dimethylamino)-(1*R*, 3*S*)-1,2,2-trimethylcyclopentane

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

Tetrahedron: Asymmetry **1992**, *3*, 9



$[\alpha]_D^{20}$ = +112.7 (*c* 0.3, $CHCl_3$); m.p. 210-211 °C (ethyl acetate)

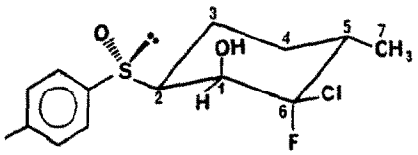
^1H NMR (δ_H, ppm): 4.18 (H-1), 2.96 (H-2), and 2.52 (H-5)
^{19}F NMR (δ_F, ppm): -116.01 (F-6)

Source of chirality: (-)-(1*R*)-menthyl (*S*)-toluene-4-sulphinate
Absolute configuration: 1*S*,2*S*,5*S*,6*S*,R_S

$C_{14}H_{18}ClFO_2S$
(1*S*,2*S*,5*S*,6*S*,R_S)-6-chloro-6-fluoro-5-methyl-2-[(4-methylphenyl)sulphinyl]cyclohexan-1-ol

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

Tetrahedron: Asymmetry **1992**, *3*, 9



$[\alpha]_D^{20}$ = +97.3 (*c* 0.7, $CHCl_3$); m.p. 168-170 °C (isopropyl ether)

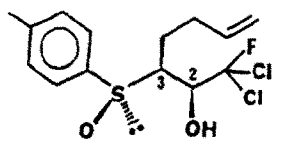
^1H NMR (δ_H, ppm): 4.08 (H-1), 2.81 (H-2), and 2.32 (H-5)
^{19}F NMR (δ_F, ppm): -130.12 (F-6)

Source of chirality: (-)-(1*R*)-menthyl (*S*)-toluene-4-sulphinate
Absolute configuration: 1*S*,2*S*,5*S*,6*R*,R_S

$C_{14}H_{18}ClFO_2S$
(1*S*,2*S*,5*S*,6*R*,R_S)-6-chloro-6-fluoro-5-methyl-2-[(4-methylphenyl)sulphinyl]cyclohexan-1-ol

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

Tetrahedron: Asymmetry **1992**, *3*, 9



$[\alpha]_D^{20}$ = +57.4 (*c* 0.9, $CHCl_3$); liquid

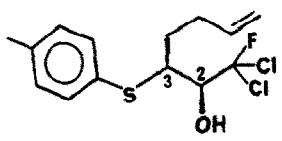
^1H NMR (δ_H, ppm): 4.75 (H-2) and 3.34 (H-3); $^3J_{2,3}$ = 1.7 Hz
^{19}F NMR (δ_F, ppm): -65.65 (F-1)

Source of chirality: (-)-(1*R*)-menthyl (*S*)-toluene-4-sulphinate
Absolute configuration: 2*S*,3*S*,R_S

$C_{14}H_{17}Cl_2FO_2S$
(2*S*,3*S*,R_S)-1,1-dichloro-1-fluoro-3-[(4-methylphenyl)sulphinyl]hept-6-en-2-ol

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

Tetrahedron: Asymmetry **1992**, *3*, 9



$[\alpha]_D^{20}$ = -45.2 (*c* 0.8, $CHCl_3$); liquid

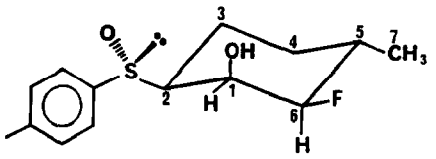
^1H NMR (δ_H, ppm): 4.16 (H-2) and 3.65 (H-3); $^3J_{2,3}$ = 1.8 Hz
^{19}F NMR (δ_F, ppm): -64.85 (F-1)

Source of chirality: (-)-(1*R*)-menthyl (*S*)-toluene-4-sulphinate
Absolute configuration: 2*S*,3*S*

$C_{14}H_{17}Cl_2FOS$
(2*S*,3*S*)-1,1-dichloro-1-fluoro-3-[(4-methylphenyl)thio]hept-6-en-2-ol

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

Tetrahedron: Asymmetry **1992**, *3*, 9



$[\alpha]_D^{20}$ = +120.0 (*c* 0.7, $CHCl_3$); m.p. 190-192 °C (isopropyl ether)

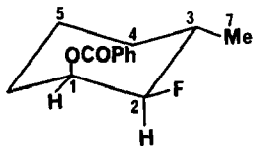
^1H NMR (δ_H, ppm): 4.02 (H-1), 3.85 (H-6), and 2.46 (H-2)
^{19}F NMR (δ_F, ppm): -190.71 (F-6)

Source of chirality: (-)-(1*R*)-menthyl (*S*)-toluene-4-sulphinate
Absolute configuration: 1*R*,2*S*,5*S*,6*R*,R_S

$C_{14}H_{19}FO_2S$
(1*R*,2*S*,5*S*,6*R*,R_S)-6-fluoro-5-methyl-2-[(4-methylphenyl)sulphinyl]cyclohexan-1-ol

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

Tetrahedron: Asymmetry **1992**, *3*, 9



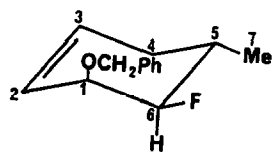
$[\alpha]_D^{20}$ = +58.1 (*c* 1.2, $CHCl_3$); liquid
^1H NMR (δ_H, ppm): 5.53 (H-1) and 4.24 (H-2); $^3J_{1,2}$ = 3.0 Hz
^{19}F NMR (δ_F, ppm): -189.50 (F-2)

Source of chirality: (-)-(1*R*)-menthyl (*S*)-toluene-4-sulphinate
Absolute configuration: 1*S*,2*R*,3*S*

$C_{14}H_{17}FO_2$
(1*S*,2*R*,3*S*)-1-benzoyloxy-2-fluoro-3-methylcyclohexane

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

Tetrahedron: Asymmetry **1992**, *3*, 9



$[\alpha]_D^{20}$ = +173.1 (*c* 0.2, $CHCl_3$); liquid

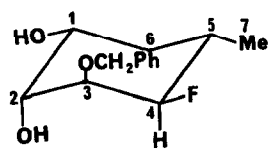
^1H NMR (δ_H, ppm): 5.82 (H-3), 5.72 (H-2), and 4.39 (H-6)
^{19}F NMR (δ_F, ppm): -196.44 (F-6)

Source of chirality: (-)-(1*R*)-menthyl (*S*)-toluene-4-sulphinate
Absolute configuration: 1*S*,5*S*,6*R*

$C_{14}H_{17}FO$
(1*S*,5*S*,6*R*)-1-benzyloxy-6-fluoro-5-methylcyclohex-2-ene

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

Tetrahedron: Asymmetry **1992**, *3*, 9



$[\alpha]_D^{20}$ = -16.2 (*c* 0.5, $CHCl_3$); m.p. 63-65 °C (pentane)

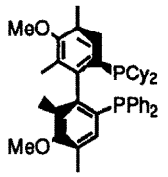
^1H NMR (δ_H, ppm): 4.50 (H-4), 4.08 (H-1), and 4.02 (H-2)
^{19}F NMR (δ_F, ppm): -202.90 (F-4)

Source of chirality: (-)-(1*R*)-menthyl (*S*)-toluene-4-sulphinate
Absolute configuration: 1*R*,2*R*,3*S*,4*R*,5*S*

$C_{14}H_{17}FO_3$
(1*R*,2*R*,3*S*,4*R*,5*S*)-3-benzyloxy-4-fluoro-5-methylcyclohexan-1,2-diol

K.Yoshikawa, N.Yamamoto, M.Murata, K.Awano, T.Morimoto, and K.Achiwa

Tetrahedron: Asymmetry **1992,** *3*, 13



E.e.=100% (by HPLC using Opti-Pak TP [Waters])
$[\alpha]_D^{20}$ -2.14 (*c* 1.00, benzene)
Absolute configuration : *R*

(*R*)-MOC-BIMOP

$C_{42}H_{52}O_2P_2$ 6-dicyclohexylphosphino-6'-diphenylphosphino-3,3'-dimethoxy-2,2',4,4'-tetramethyl-1,1'-biphenyl

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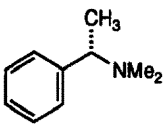
Tetrahedron: Asymmetry **1992,** *3*, 17

Nathaniel W. Alcock, John M. Brown, Mark Pearson and Simon Woodward



Optical Purity 94.5%
$[\alpha]_D^{21}$ = -46.5 (c =1, MeOH)
Source of chirality - Eschweiler-Clarke synthesis from RNH_2 (Aldrich)

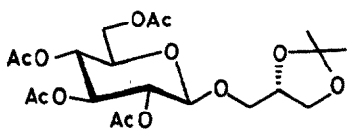
$C_{10}H_{15}N$

Absolute configuration S (-)

(S)- Dimethyl-1-phenylethylamine

M K Gurjar* and A S Mainkar

Tetrahedron: Asymmetry **1992,** *3*, 21



$C_{20}H_{30}O_{12}$

3-O-(2,3,4,6-tetra-O-acetyl-β-D-glucopyranosyl)-1,2-O-isopropylidene-D-glycerol

de = 40% (by ^{1}H-NMR analysis of anomeric protons)

$[\alpha]_D$ -15.6 (c 1.1, $CHCl_3$)

Source of chirality - Catalytic osmylation of allyl β-D-glucopyranoside

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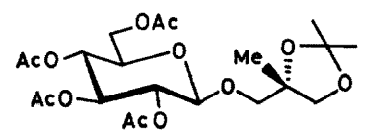
M K Gurjar* and A S Mainkar

Tetrahedron: Asymmetry **1992,** *3*, 21



$C_{21}H_{32}O_{12}$

3-O-(2,3,4,6-tetra-O-acetyl- β -D-glucopyranosyl)-1,2-O-isopropylidene-2-C-methyl-D-glycerol

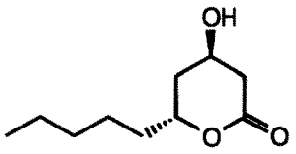
de = 64% (by ^{1}H-NMR analysis of anomeric protons)

$[\alpha]_D$ -2.15 (c 1.0, $CHCl_3$)

Source of chirality - Catalytic osmylation of 2-isobutenyl β-D-glucopyranoside

Carlo Bonini*, Piero Pucci, Rocco Racioppi and Licia Viggiani

Tetrahedron: Asymmetry **1992**, *3*, 29



$C_{10}H_{18}O_3$

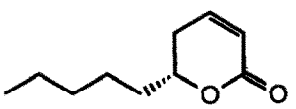
3-Hydroxy-5-decanolide

Absolute configuration 4R, 6R.
Source of chirality: natural and biocatalytic lactonization

E.e.= 86% on synthetic one (determined by ^{1}H-NMR on (-) camphanic acid derivative).
$[\alpha]_D$ =+ 26 (c= 1.2, $CHCl_3$)

Carlo Bonini*, Piero Pucci, Rocco Racioppi and Licia Viggiani

Tetrahedron: Asymmetry **1992**, *3*, 29



$C_{10}H_{16}O_2$

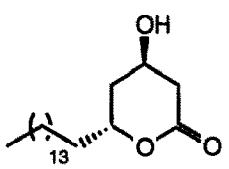
2-Decen-5-olide (Massoialactone)

Absolute configuration 6R
Source of chirality: natural and synthetic by dehydration of 3-Hydroxy-5-decanolide

E.e. = 86% on synthetic one
$[\alpha]_D$ = - 84 (c=1.8, $CHCl_3$).

Carlo Bonini*, Piero Pucci, Rocco Racioppi and Licia Viggiani

Tetrahedron: Asymmetry **1992**, *3*, 29



$C_{20}H_{38}O_3$

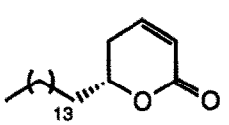
3-Hydroxy-5-icosanolide

Absolute configuration 3R, 5R
Source of chirality: biocatalityc lactonization

E.e.= 98% (determined by ^{1}H-NMR on (-) camphanic acid derivative).
$[\alpha]_D$= +18 (c=1, $CHCl_3$).

Carlo Bonini*, Piero Pucci, Rocco Racioppi and Licia Viggiani

Tetrahedron: Asymmetry **1992**, *3*, 29



$C_{20}H_{36}O_2$

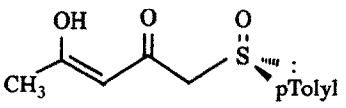
2-Icosen-5-olide

Absolute configuration 5R
Source of chirality: synthetic by dehydration of 3-Hydroxy-5-icosanolide

$[\alpha]_D$= -42 (c=0.5, $CHCl_3$).

Guy Solladié, Nasser Ghiatou

Tetrahedron: Asymmetry **1992,** *3*, 33



$C_{12}H_{14}O_3S$

(+)(R) 1-(p-tolylsulfinyl) 2,4-pentanedione

e.e.>99%

$[\alpha]_D$ + 340 (c=2,acetone)

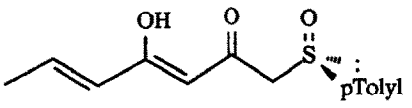
Source of chirality : from (-)(S) menthyl p-tolylsulfinate.

Absolute configuration: R

(assigned from the reaction mechanism)

Guy Solladié, Nasser Ghiatou

Tetrahedron: Asymmetry **1992,** *3*, 33



$C_{14}H_{16}O_3S$

(+)(R) 1-(p-tolylsulfinyl) 5-heptene 2,4-dione

e.e.>99%

$[\alpha]_D$ + 312 (c=1.73, acetone)

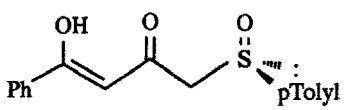
Source of chirality: from (+)(R) methyl p-tolylsulfoxide.

Absolute configuration:R

(assigned from the reaction mechanism)

Guy Solladié, Nasser Ghiatou

Tetrahedron: Asymmetry **1992,** *3*, 33



$C_{17}H_{16}O_3S$

(+)(R) 1-(p-tolylsulfinyl) 4-phenyl 2,4-butanedione

e.e.>99%

$[\alpha]_D$ + 331 (c=2, acetone)

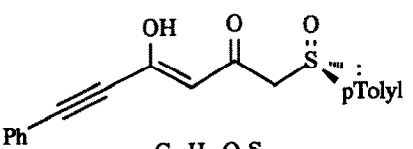
Source of chirality : from (-)(S) menthyl p-tolylsulfinate.

Absolute configuration: R

(assigned from the reaction mechanism)

Guy Solladié, Nasser Ghiatou

Tetrahedron: Asymmetry **1992,** *3*, 33



$C_{19}H_{16}O_3S$

(+)(R) 1-(p-tolylsulfinyl) 6-phenyl 5-hexyne 2,4-dione

e.e.>99%

$[\alpha]_D$ + 82 (c=2, acetone)

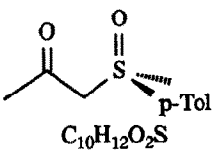
Source of chirality: from (+)(R) methyl p-tolylsulfoxide.

Absolute configuration:R

(assigned from the reaction mechanism)

Guy Solladié, Nasser Ghiatou

Tetrahedron: Asymmetry **1992**, *3*, 33



$C_{10}H_{12}O_2S$

(+)(R) 1-(p-tolylsulfinyl) 2-propanone

e.e.>99%

$[\alpha]_D$ + 260 (c=1.97, acetone)

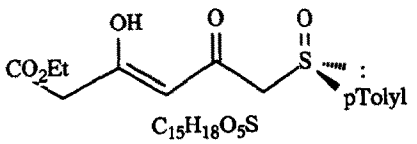
Source of chirality: from (+)(R) methyl p-tolylsulfoxide.

Absolute configuration: R

(assigned from the reaction mechanism)

Guy Solladié, Nasser Ghiatou

Tetrahedron: Asymmetry **1992**, *3*, 33



$C_{15}H_{18}O_5S$

Ethyl (+)(R) 1-(p-tolylsulfinyl) 2,4-dioxo hexanoate

e.e.>99%

$[\alpha]_D$ + 109 (c=2, acetone)

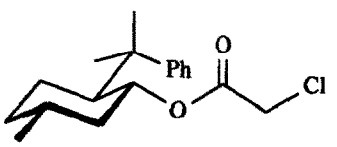
Source of chirality: from (+)(R) methyl p-tolylsulfoxide.

Absolute configuration: R

(assigned from the reaction mechanism)

A. Solladié-Cavallo and S. Quazzotti

Tetrahedron: Asymmetry **1992**, *3*, 39



$C_{18}H_{25}O_2Cl$

8-Phenylmenthyl chloroacetate

E.e.= about 100%

$[\alpha]_D$= +21 (c, 2.1; CCl_4)

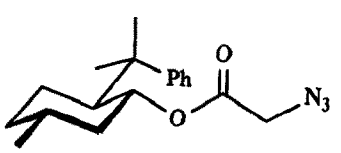
m.p. 83-84°C

Source of chirality: natural R-(+)-Pulegone, $[\alpha]_D$= +23 (neat)

Absolute configuration: *1R,2S,5R* (100% *1R,2S* by 200MHz NMR)

A. Solladié-Cavallo and S. Quazzotti

Tetrahedron: Asymmetry **1992**, *3*, 39



$C_{18}H_{25}O_2N_3$

8-Phenylmenthyl azidoacetate

E.e.= about 100%

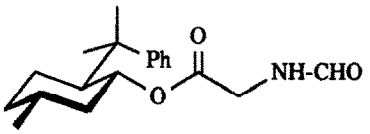
$[\alpha]_D$= +17.6 (c, 0.2; CCl_4)

Source of chirality: natural R-(+)-Pulegone, $[\alpha]_D$= +23 (neat)

Absolute configuration: *1R,2S,5R* (100% *1R,2S* by 200MHz NMR)

A. Solladié-Cavallo and S. Quazzotti

Tetrahedron: Asymmetry **1992**, *3*, 39

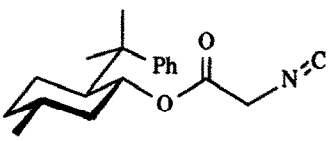


E.e.= about 100%
$[\alpha]_D$= +2.9 (c, 3.8; CCl_4)
Source of chirality: natural R-(+)-Pulegone, $[\alpha]_D$= +23 (neat)
Absolute configuration: *1R,2S,5R* (100% *1R,2S* by 200MHz NMR)

$C_{19}H_{27}O_3N$
8-Phenylmenthyl formylglycinate

A. Solladié-Cavallo and S. Quazzotti

Tetrahedron: Asymmetry **1992**, *3*, 39

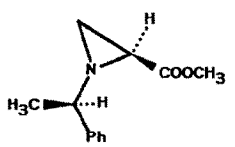


E.e.= about 100%
$[\alpha]_D$= +20.5 (c, 4.4; CCl_4)
Source of chirality: natural R-(+)-Pulegone, $[\alpha]_D$= +23 (neat)
Absolute configuration: *1R,2S,5R* (100% *1R,2S* by 200MHz NMR)

$C_{19}H_{25}O_2N$
8-Phenylmenthyl isocyanoacetate

S. Farooq, W. E. Swain, R. Daeppen and G. Rihs

Tetrahedron: Asymmetry **1992**, *3*, 51



$C_{12}H_{15}NO_2$
Methyl 1-(1-phenylethyl)-aziridine-2-carboxylate

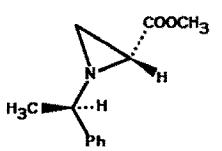
D.e. = 100% (by ^{1}H-NMR)
$[\alpha]_D^{20}$ = - 52.7 (c 0.14, $CHCl_3$)

Source of chirality: synthesis from (R)-1-phenylethylamine and diastereoisomer separation

Absolute configuration: 1R,2S
(assigned by correlation with, and X-ray analysis of, related derivative)

S. Farooq, W. E. Swain, R. Daeppen and G. Rihs

Tetrahedron: Asymmetry **1992**, *3*, 51



$C_{12}H_{15}NO_2$
Methyl 1-(1-phenylethyl)-aziridine-2-carboxylate

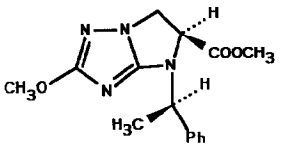
D.e. = 100% (by ^{1}H-NMR)
$[\alpha]_D^{20}$ = + 108.5 (c 0.10, $CHCl_3$)

Source of chirality: synthesis from (R)-1-phenylethylamine and diastereoisomer separation

Absolute configuration: 1R,2R
(assigned by correlation with corresponding 1R,2S diastereoisomer)

S. Farooq, W. E. Swain, R. Daeppen and G. Rihs

Tetrahedron: Asymmetry **1992**, *3*, 51



$C_{15}H_{18}N_4O_3$

Methyl 5,6-dihydro-2-methoxy-4-(1-phenylethyl)-imidazo[1,2-b][1,2,4]triazole-5-carboxylate

D.e. = 100% (by ^{1}H-NMR)

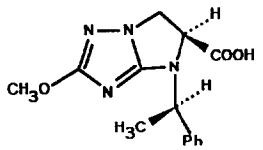
$[\alpha]_D^{20}$ = + 11.9 (c 0.03, $CHCl_3$)

Source of chirality: synthesis from methyl (1R-phenylethyl)-aziridine-2S-carboxylate

Absolute configuration: 1R,5S
(assigned by correlation with,and X-ray analysis of, corresponding acid)

S. Farooq, W. E. Swain, R. Daeppen and G. Rihs

Tetrahedron: Asymmetry **1992**, *3*, 51



$C_{14}H_{16}N_4O_3$

5,6-Dihydro-2-methoxy-4-(1-phenylethyl)-imidazo[1,2-b][1,2,4]triazole-5-carboxylic acid

D.e. = 100% (by ^{1}H-NMR)

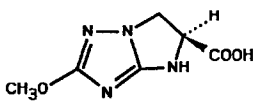
$[\alpha]_D^{20}$ = + 32.5 (c 0.07, $CHCl_3$)

Source of chirality: synthesis from methyl (1R-phenylethyl)-aziridine-2S-carboxylate

Absolute configuration: 1R,2S
(assigned by X-ray analysis)

S. Farooq, W. E. Swain, R. Daeppen and G. Rihs

Tetrahedron: Asymmetry **1992**, *3*, 51



$C_6H_8N_4O_3$

5,6-Dihydro-2-methoxy-4H-imidazo[1,2-b][1,2,4]triazole-5-carboxylic acid

E.e. > 96% (by HPLC)

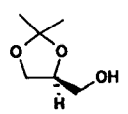
$[\alpha]_D^{20}$ = + 4.1 (c 0.12, H_2O)

Source of chirality: synthesis from methyl (1R-phenylethyl)-aziridine-2S-carboxylate

Absolute configuration: 5S
(assigned by correlation with, and X-ray analysis of, related synthetic intermediate)

V. Partali, A. G. Melbye, T. Alvik and T. Anthonsen

Tetrahedron: Asymmetry **1992**, *3*, 65



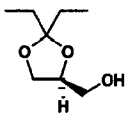
$C_6H_{12}O_3$

(S)-2,2-Dimethyl-1,3-dioxolane-4-methanol

$[\alpha]_D^{20}$ = +6.7 (c = 0,0225, hexane)
Enzyme catalysed racemate resolution, E = 9.0

V. Partali, A. G. Melbye, T. Alvik and T. Anthonsen

Tetrahedron: Asymmetry **1992**, *3*, 65



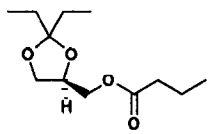
$C_8H_{16}O_3$

$[\alpha]_D^{20}$ = +9.6 (c = 0,0147, hexane)
$[\alpha]_D^{20}$ = +13.5 (c = 0,0140, MeOH)
Prepared from homochiral
(R)-3-chloro-1,2-propanediol
Enzyme catalysed racemate
resolution, *E* = 6.0

(S)-2,2-Diethyl-1,3-dioxolane-4-methanol

V. Partali, A. G. Melbye, T. Alvik and T. Anthonsen

Tetrahedron: Asymmetry **1992**, *3*, 65



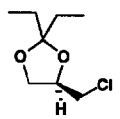
$C_{12}H_{22}O_4$

$[\alpha]_D^{20}$ = +15.6 (c = 0,0115, hexane)
Prepared from homochiral
(R)-3-chloro-1,2-propanediol

(R)-2,2-Diethyl-1,3-dioxolane-4-methanol butanoate

V. Partali, A. G. Melbye, T. Alvik and T. Anthonsen

Tetrahedron: Asymmetry **1992**, *3*, 65



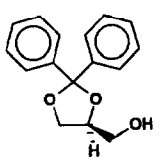
$C_8H_{15}ClO_2$

$[\alpha]_D^{20}$ = +38.6 (c = 0,0114, CH_2Cl_2)
Prepared from homochiral
(R)-3-chloro-1,2-propanediol

(R)-4-[Chloromethyl]-2,2-diethyl-1,3-dioxolane

V. Partali, A. G. Melbye, T. Alvik and T. Anthonsen

Tetrahedron: Asymmetry **1992**, *3*, 65



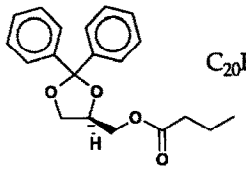
$C_{16}H_{16}O_3$

$[\alpha]_D^{20}$ = +22.5 (c = 0,0036, MeOH)
Prepared from homochiral
(R)-3-chloro-1,2-propanediol
Enzyme catalysed racemate
resolution, *E* = 8.1

(S)-2,2-Diphenyl-1,3-dioxolane-4-methanol

V. Partali, A. G. Melbye, T. Alvik and T. Anthonsen

Tetrahedron: Asymmetry **1992**, *3*, 65



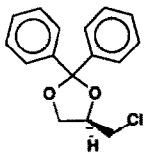
$C_{20}H_{22}O_4$

$[\alpha]_D^{20}$ = +24.7 (c = 0,00196, hexane)
Prepared from homochiral
(R)-3-chloro-1,2-propanediol

(R)-2,2-Diphenyl-1,3-dioxolane-4-methanol butanoate

V. Partali, A. G. Melbye, T. Alvik and T. Anthonsen

Tetrahedron: Asymmetry **1992**, *3*, 65



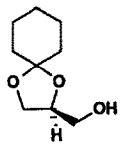
$C_{16}H_{15}ClO_2$

$[\alpha]_D^{20}$ = +37.1 (c = 0,0114, CH_2Cl_2)
Prepared from homochiral
(R)-3-chloro-1,2-propanediol

(R)-4-[Chloromethyl]-2,2-diphenyl-1,3-dioxolane

V. Partali, A. G. Melbye, T. Alvik and T. Anthonsen

Tetrahedron: Asymmetry **1992**, *3*, 65



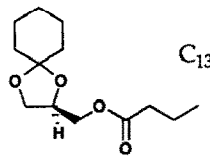
$C_9H_{16}O_3$

$[\alpha]_D^{20}$ = +6.8 (c = 0,0118,MeOH)
Prepared from homochiral
(R)-3-chloro-1,2-propanediol
Enzyme catalysed racemate
resolution, *E* = 6.2

(S)-1,4-Dioxaspiro[4.5]decane-2-methanol

V. Partali, A. G. Melbye, T. Alvik and T. Anthonsen

Tetrahedron: Asymmetry **1992**, *3*, 65



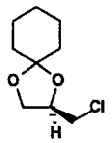
$C_{13}H_{22}O_4$

$[\alpha]_D^{20}$ = +12.5 (c = 0,00138, hexane)
Prepared from homochiral
(R)-3-chloro-1,2-propanediol

(R)-1,4-Dioxaspiro[4.5]decane-2-methanol butanoate

V. Partali, A. G. Melbye, T. Alvik and T. Anthonsen

Tetrahedron: Asymmetry **1992**, *3*, 65



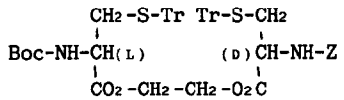
$C_9H_{15}ClO_2$

$[\alpha]_D^{20} = +28.0$ (c = 0,0019, CH_2Cl_2)
Prepared from homochiral
(R)-3-chloro-1,2-propanediol

(R)-2-[Chloromethyl]-1,4-dioxaspiro[4.5]decane

Florine CAVELIER-FRONTIN, Jacques DAUNIS, Robert JACQUIER

Tetrahedron: Asymmetry **1992**, *3*, 85



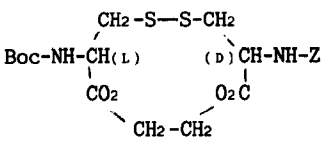
$[\alpha]_D$ = -5 (c=1, CH_3OH)
mp=88-89°C
Source of chirality : L and D cysteine

$C_{59}H_{58}N_2O_8S_2$

1-*(L)* N-Boc cysteinyl 2-*(D)* N-Z cysteinyl ethane

Florine CAVELIER-FRONTIN, Jacques DAUNIS, Robert JACQUIER

Tetrahedron: Asymmetry **1992**, *3*, 85



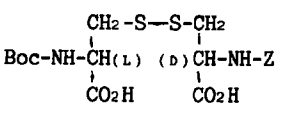
$[\alpha]_D$ = -5 (c=1, CH_3OH)
mp=72-74°C
FAB negative-ion spectrum $[M-H]^-$: *m/z* 499
Source of chirality : L and D cysteine

$C_{21}H_{28}N_2O_8S_2$

1-*(L)* N-Boc cystinyl 2-*(D)* N-Z cystinyl ethane

Florine CAVELIER-FRONTIN, Jacques DAUNIS, Robert JACQUIER

Tetrahedron: Asymmetry **1992**, *3*, 85



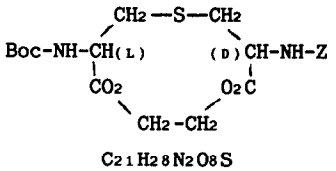
$[\alpha]_D$ = -4 (c=1, CH_3OH)
FAB negative-ion spectrum $[M-H]^-$: *m/z* 473
Source of chirality : L and D cysteine

$C_{19}H_{26}N_2O_8S_2$

(L,D) N-Boc N'-Z cystine

Florine CAVELIER-FRONTIN, Jacques DAUNIS, Robert JACQUIER

Tetrahedron: Asymmetry **1992**, *3*, 85



$C_{21}H_{28}N_2O_8S$

$[\alpha]_D$ = -6 (c=1, CH_3OH)

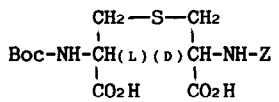
FAB negative-ion spectrum $[M-H]^-$: *m/z* 467

Source of chirality : L and D cysteine

1-(*L*) N-Boc lanthionyl 2-(*D*) N-Z lanthionyl ethane

Florine CAVELIER-FRONTIN, Jacques DAUNIS, Robert JACQUIER

Tetrahedron: Asymmetry **1992**, *3*, 85



$C_{19}H_{26}N_2O_8S$

$[\alpha]_D$ = -5 (c=1, CH_3OH)

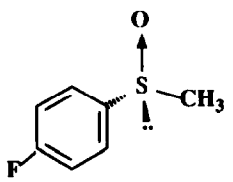
FAB negative-ion spectrum $[M-H]^-$: *m/z* 441

Source of chirality : L and D cysteine

(*L,D*) N-Boc N'-Z lanthionine

S. Colonna, N. Gaggero, L. Casella, G. Carrea, P. Pasta

Tetrahedron: Asymmetry **1992**, *3*, 95



E.e. = 97 % (by chiral HPLC with Chiralcel OB column)

Source of chirality : Chloroperoxidase

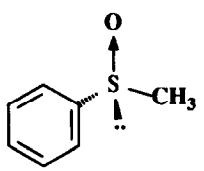
Absolute configuration : R

C_7H_7FOS

methyl p-fluorophenyl sulfoxide

S. Colonna, N. Gaggero, L. Casella, G. Carrea, P. Pasta

Tetrahedron: Asymmetry **1992**, *3*, 95



E.e. = 98 % (by chiral HPLC with Chiralcel OB column)

Source of chirality : Chloroperoxidase

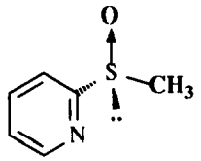
Absolute configuration : R

C_7H_8OS

methyl phenyl sulfoxide

S. Colonna, N. Gaggero, L. Casella, G. Carrea, P. Pasta

Tetrahedron: Asymmetry **1992,** *3*, 95

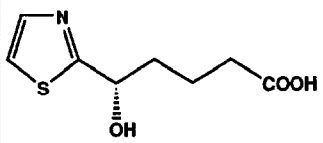


E.e. = 99 % (by chiral HPLC with Chiralcel OB column)
Source of chirality : Chloroperoxidase
Absolute configuration : R

C_6H_7NOS
methyl 2-pyridyl sulfoxide

G. Fantin, M. Fogagnolo, A. Medici, P. Pedrini, S. Poli, M. E. Guerzoni and F. Gardini

Tetrahedron: Asymmetry **1992,** *3*, 107



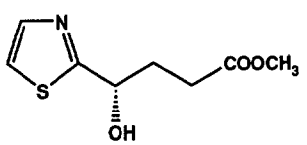
ee => 95% [by GLC analysis on a 25 m permethylated β-cyclodextrine in OV 1701]
$[\alpha]_D^{25}$ = -20.8 (c = 3, $CHCl_3$)
Source of chirality: BY reduction
Absolute configuration: S

$C_8H_{11}NO_3S$

5-Hydroxy-5-(2-thiazolyl)pentanoic acid

G. Fantin, M. Fogagnolo, A. Medici, P. Pedrini, S. Poli, M. E. Guerzoni and F. Gardini

Tetrahedron: Asymmetry **1992,** *3*, 107



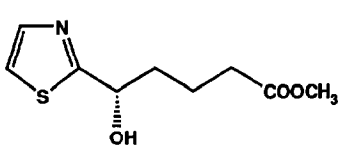
ee => 95% [by GLC analysis on a 25 m permethylated β-cyclodextrine in OV 1701]
$[\alpha]_D^{25}$ = -22.1 (c = 4.8, $CHCl_3$)
Source of chirality: BY reduction
Absolute configuration: S

$C_8H_{11}NO_3S$

Methyl 4-Hydroxy-4-(2-thiazolyl)butanoate

G. Fantin, M. Fogagnolo, A. Medici, P. Pedrini, S. Poli, M. E. Guerzoni and F. Gardini

Tetrahedron: Asymmetry **1992,** *3*, 107



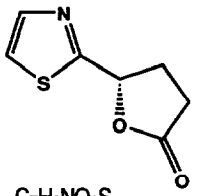
ee => 95% [by GLC analysis on a 25 m permethylated β-cyclodextrine in OV 1701]
$[\alpha]_D^{25}$ = -19.8 (c = 7.6, $CHCl_3$)
Source of chirality: *Rhizopus microsporus* reduction
Absolute configuration: S

$C_9H_{13}NO_3S$

Methyl 5-Hydroxy-5-(2-thiazolyl)pentanoate

G. Fantin, M. Fogagnolo, A. Medici, P. Pedrini, S. Poli, M. E. Guerzoni and F. Gardini

Tetrahedron: Asymmetry **1992,** *3*, 107



$C_7H_9NO_2S$

ee => 95% [by GLC analysis on a 25 m permethylated β-cyclodextrine in OV 1701]

$[\alpha]_D^{25}$ = 11.2 (c = 3.2, $CHCl_3$)

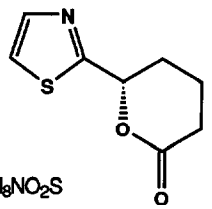
Source of chirality: chemical lactonization of homochiral γ-hydroxy ester

Absolute configuration: S

γ-(2-thiazolyl)-γ-butyrolactone

G. Fantin, M. Fogagnolo, A. Medici, P. Pedrini, S. Poli, M. E. Guerzoni and F. Gardini

Tetrahedron: Asymmetry **1992,** *3*, 107



$C_8H_9NO_2S$

ee => 95% [by GLC analysis on a 25 m permethylated β-cyclodextrine in OV 1701]

$[\alpha]_D^{25}$ = -9.1 (c = 0.7, $CHCl_3$)

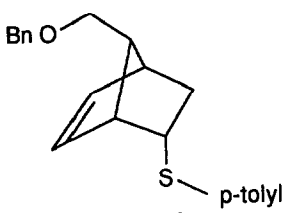
Source of chirality: chemical lactonization of homochiral δ-hydroxy acid

Absolute configuration: S

δ-(2-thiazolyl)-δ-valerolactone

B. Ronan and H.B. Kagan

Tetrahedron: Asymmetry **1992,** *3*, 115



$C_{22}H_{24}OS$

$[\alpha]_D^{25}$ = -121.4 (c= 0.98, acetone)

100 % ee

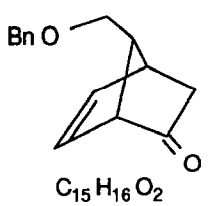
Absolute configuration: 1R, 2S, 4S, 7R

by chemical correlation to the norbornenone below

Bicyclo [2.2.1.] hept-7-benzyloxymethyl-5-ene-2-p-tolyl-sulfenyl

B. Ronan and H.B. Kagan

Tetrahedron: Asymmetry **1992,** *3*, 115



$C_{15}H_{16}O_2$

$[\alpha]_D^{25}$ = -454 (c= 1.03, $CHCl_3$)

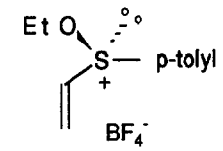
100 % ee and absolute configuration 1R, 4S, 7R

by comparison to lit.value.

Bicyclo [2.2.1.] hept-7-benzyloxymethyl-5-ene-2-one

B. Ronan and H.B. Kagan

Tetrahedron: Asymmetry **1992,** *3*, 115



$C_{11}H_{15}OSBF_4$

Ethoxy p-tolyl vinyl sulfonium tetrafluoroborate

from (R)-(+)- p-tolyl vinyl sulfoxide (100 % ee)

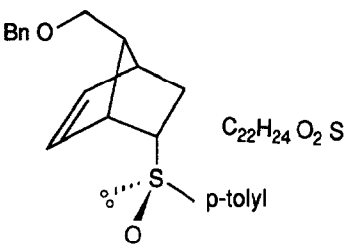
$[\alpha]_D^{25}$ = + 59 (c=1, $CHCl_3$)

100 % ee

Absolute configuration: R_S

B. Ronan and H.B. Kagan

Tetrahedron: Asymmetry **1992,** *3*, 115



$C_{22}H_{24}O_2S$

$[\alpha]_D^{25}$ = -181.5 (c= 1.11, acetone)

100 % ee

Absolute configuration: 1R, 2S, 4S, 7R,S_S

(by chemical correlation)

Bicyclo [2.2.1.] hept-7-benzyloxymethyl-5-ene-2-p-tolyl-sulfinyl

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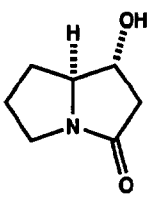
R.P. Beckett, S.G. Davies and A.A. Mortlock

Tetrahedron: Asymmetry **1992,** *3*, 123



$C_7H_{11}NO_2$

1-Hydroxypyrrolizidin-3-one

E.e. = 100%

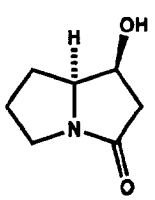
$[\alpha]_D^{20}$ -97.0 (c = 0.3, $CHCl_3$)

Source of chirality: L-proline

Absolute configuration 1R,8S (assigned from L-proline)

R.P. Beckett, S.G. Davies and A.A. Mortlock

Tetrahedron: Asymmetry **1992,** *3*, 123



$C_7H_{11}NO_2$

1-Hydroxypyrrolizidin-3-one

E.e. = 100%

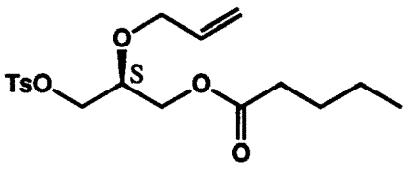
$[\alpha]_D^{20}$ -48.8 (c = 0.3, $CHCl_3$)

Source of chirality: L-proline

Absolute configuration 1S,8S (assigned from L-proline)

B. Wirz, R. Schmid & J. Foricher

Tetrahedron: Asymmetry **1992**, *3*, 137



$C_{18}H_{26}O_6S$

[(S)-2-(Allyloxy)trimethylene] valerate p-toluenesulfonate

ee = 94 % (GLC of diastereoisomers of the corr. alcohol)

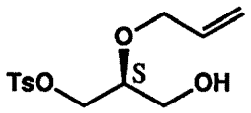
$[\alpha]_D^{20}$ = -4.6 (c = 1.0, $CHCl_3$)

Source of chirality: asymmetric enzymatic hydrolysis of 2-O-allylglycerol divalerate

Absolute configuration: S

B. Wirz, R. Schmid & J. Foricher

Tetrahedron: Asymmetry **1992**, *3*, 137



$C_{13}H_{18}O_5S$

[(S)-2-(Allyloxy)-3-hydroxypropyl] p-toluenesulfonate

ee = 94 % (GLC of diastereoisomers)

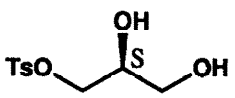
$[\alpha]_D^{20}$ = -29.5 (c = 1.0, $CHCl_3$)

Source of chirality: asymmetric enzymatic hydrolysis of 2-O-allylglycerol divalerate

Absolute configuration: S

B. Wirz, R. Schmid & J. Foricher

Tetrahedron: Asymmetry **1992**, *3*, 137



$C_{10}H_{14}O_5S$

[(S)-2,3-Dihydroxypropyl] p-toluenesulfonate

ee = 96 % (NMR of Mosher derivative)

$[\alpha]_D^{20}$ = +9.7 (c = 5.0, MeOH)

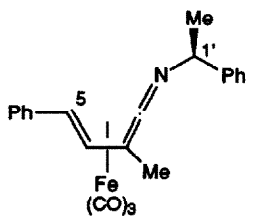
$[\alpha]_D^{20}$ = +11.8 (c = 1.0, EtOH)

Source of chirality: asymmetric enzymatic hydrolysis of 2-O-allylglycerol divalerate

Absolute configuration: S

C. J. Richards and S. E. Thomas

Tetrahedron: Asymmetry **1992**, *3*, 143



$C_{22}H_{19}FeNO_3$

Tricarbonyl(3-methyl-1-phenethyl-5-phenyl-1-azapenta-1,2,4-triene)iron(0)

E.e. > 92% (by derivatisation)

D.e. > 99% (by ^1H n.m.r.)

$[\alpha]_{589}^{23}$ = +673 (c 0.2 in MeOH)

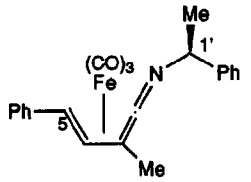
Source of chirality: (*S*)-(-)-α-methylbenzylamine

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

(assigned by X-ray analysis)

C. J. Richards and S. E. Thomas

Tetrahedron: Asymmetry **1992**, *3*, 143



$C_{22}H_{19}FeNO_3$

Tricarbonyl(3-methyl-1-phenethyl-5-phenyl-1-azapenta-1,2,4-triene)iron(0)

E.e. > 95% (by derivatisation)

D.e. > 99% (by ^1H n.m.r.)

$[\alpha]_{589}^{23}$ = -1127 (c 0.2 in MeOH)

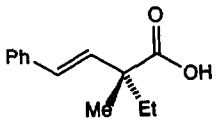
Source of chirality: (*S*)-(-)-α-methylbenzylamine

Absolute configuration: 5*S*, 1'*S*

(assigned by correlation with X-ray analysis)

C. J. Richards and S. E. Thomas

Tetrahedron: Asymmetry **1992**, *3*, 143



$C_{13}H_{16}O_2$

trans-2-methyl-2-ethyl-4-phenylbut-3-enoic acid

E.e. = 96% [by ^1H n.m.r. of amide formed with (*S*)-(-)-α-methylbenzylamine]

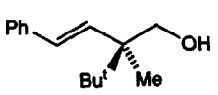
$[\alpha]_{546}^{22}$ = +10 (c 0.1 in $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: *R*

C. J. Richards and S. E. Thomas

Tetrahedron: Asymmetry **1992**, *3*, 143



$C_{15}H_{22}O$

trans-2-methyl-2-(1,1-dimethylethyl)-4-phenyl-but-3-enol

E.e. > 97% (by ^1H n.m.r. of Mosher's ester)

$[\alpha]_{589}^{22}$ = +37 (c 0.1 in MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: *R*