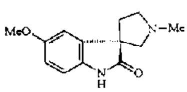
G.Palmisano* R. Annunziata, G. Papeo and M.Sisti.

Tetrahedron: Asymmetry **1996**, *7*, 1

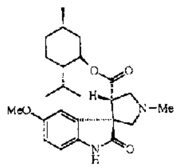


$C_{13}H_{16}N_2O_2$
$[\alpha]_D$ -7.0 (c 0.55, $CHCl_3$)
Source of chirality: (1R,2S,5R)-menthol
Absolute configuration: (3R)
Assignment based on the reaction mechanism and ^{1}H-NMR

(-)-HORSFILINE ≡ (3R)-5-METHOXY-1'-METHYL-SPIRO[3H-INDOLE-3,3'-PYRROLIDIN]-2(1H)ONE

G.Palmisano*. R. Annunziata, G. Papeo and M.Sisti.

Tetrahedron: Asymmetry **1996**, *7*, 1

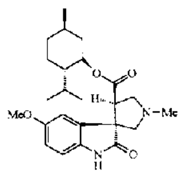


$C_{24}H_{24}N_2O_4$
$[\alpha]_D$ -25.7 (c 0.50, $CHCl_3$)
Source of chirality: (1R,2S,5R)-menthol
Absolute configuration: (3R,4S')
Assignment based on the reaction mechanism and ^{1}H-NMR

(3R 4'S)-1,2-DIHYDRO-5-METHOXY-1'-METHYL-2-OXOSPIRO[3H-INDOLE-3,3'-PYRROLIDINE]-4'-CARBOXYLIC ACID, (5R)-MENTHYL ESTER

G.Palmisano* R. Annunziata, G. Papeo and M.Sisti.

Tetrahedron: Asymmetry **1996**, *7*, 1

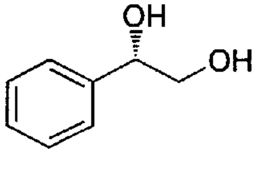


$C_{24}H_{24}N_2O_4$
$[\alpha]_D$ -184.7 (c 0.50, $CHCl_3$)
Source of chirality: (1R,2S,5R)-menthol
Absolute configuration: (3S,4'R)
Assignment based on the reaction mechanism and ^{1}H-NMR

(3S, 4'R)-1,2-DIHYDRO-5-METHOXY-1'-METHYL-2-OXOSPIRO[3H-INDOLE-3,3'-PYRROLIDINE]-4'-CARBOXYLIC ACID, (5R)-MENTHYL ESTER

Christian Wiesauer and Walter Weissensteiner*

Tetrahedron: Asymmetry **1996**, *7*, 5



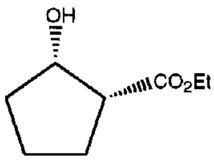
E.e.= 79 % [by chiral HPLC, Chiralcel OB]
$[\alpha]_D^{20}$ = + 30.5 (c = 3.2 , EtOH)

Source of chirality : asymm. synth
Absolute configuration 1S

$C_8H_{10}O_2$
1-Phenyl-1,2-ethanediol

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996,** *7,* 9



$C_8H_{14}O_3$
Ethyl 2-hydroxy-cyclopentane carboxylate

E.e. 95% by chiral GC as *i*Pr-carbamate (Chirasil-Val)

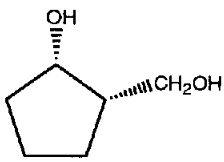
$[\alpha]_D^{20}$ = +25 (c 1.3, MeOH)

Source of chirality: microbial reduction

Absolute configuration: 1R,2S

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996,** *7,* 9



$C_6H_{12}O_2$
2-hydroxymethyl cyclopentanol

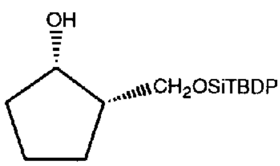
$[\alpha]_D^{20}$ = + 40 (c 1, MeOH)

Source of chirality: microbial reduction

Absolute configuration: 1S,2S

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996,** *7,* 9



$C_{22}H_{30}O_2Si$
2-hydroxymethyl cyclopentanol *ter*-butyldiphenylsilyl ether

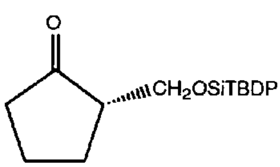
$[\alpha]_D^{20}$ = + 6 (c 1, MeOH)

Source of chirality: microbial reduction

Absolute configuration: 1S,2S

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996,** *7,* 9



$C_{22}H_{28}O_2Si$
2-hydroxymethyl cyclopentanone *ter*-butyldiphenylsilyl ether

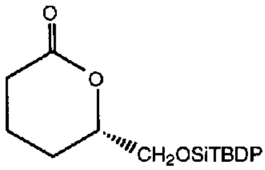
$[\alpha]_D^{20}$ = −70 (c 1.5, $CHCl_3$)

Source of chirality: microbial reduction

Absolute configuration: 2S

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996**, *7*, 9



$[\alpha]_D^{20} = +10$; $[\alpha]_{365}^{20} = +34$ (c 0.7, $CHCl_3$)

Source of chirality: microbial reduction

$C_{22}H_{28}O_3Si$

Absolute configuration: 6S

6-hydroxymethyl tetrahydro(2*H*)-pyran-2-one *ter*-butyldiphenylsilyl ether

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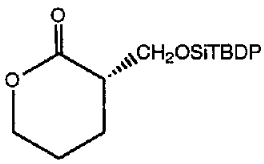
D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996**, *7*, 9



$[\alpha]_D^{20} = -18$; $[\alpha]_{365}^{20} = -63$ (c 0.5, $CHCl_3$)

Source of chirality: microbial reduction

$C_{22}H_{28}O_3Si$

Absolute configuration: 3S

3-hydroxymethyl tetrahydro(2*H*)-pyran-2-one *ter*-butyldiphenylsilyl ether

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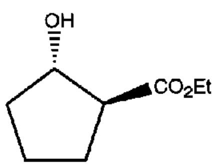
D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996**, *7*, 9

E.e. 99% by chiral GC as *i*Pr-carbamate (Chirasil-Val)



$[\alpha]_D^{20} = +52$ (c 0.9, Et_2O); + 66 (c 1, MeOH)

Source of chirality: microbial reduction

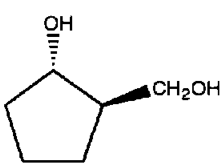
$C_8H_{14}O_3$

Ethyl 2-hydroxy-cyclopentane carboxylate

Absolute configuration: 1S,2S

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996**, *7*, 9



$[\alpha]_D^{20} = +40$ (c 3, MeOH)

Source of chirality: microbial reduction

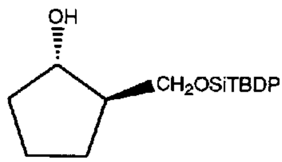
$C_6H_{12}O_2$

2-hydroxymethyl cyclopentanol

Absolute configuration: 1S,2R

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996,** *7,* 9



$[\alpha]_D^{20}$ = + 18 (c 1, MeOH)

Source of chirality: microbial reduction

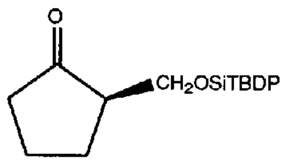
Absolute configuration: 1S,2R

$C_{22}H_{30}O_2Si$

2-hydroxymethyl cyclopentanol *ter*-butyldiphenylsilyl ether

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996,** *7,* 9



$[\alpha]_D^{20}$ = + 64 (c 0.9, $CHCl_3$)

Source of chirality: microbial reduction

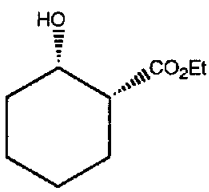
Absolute configuration: 2R

$C_{22}H_{28}O_2Si$

2-hydroxymethyl cyclopentanone *ter*-butyldiphenylsilyl ether

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996,** *7,* 9



E.e. 99% by chiral GC as *i*Pr-carbamate (Chirasil-Val)

$[\alpha]_D^{20}$ = + 20 (C 0.7, $CHCl_3$); +36 (c 0.9, MeOH)

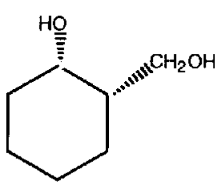
Source of chirality: microbial reduction

Absolute configuration: 1R,2S

$C_9H_{16}O_3$
Ethyl 2-hydroxy-cyclohexane carboxylate

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996,** *7,* 9



$[\alpha]_D^{20}$ = + 36 (c 1.0, MeOH)

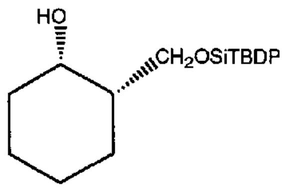
Source of chirality: microbial reduction

Absolute configuration: 1S,2S

$C_7H_{14}O_2$
2-hydroxymethyl cyclohexanol

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996**, *7*, 9



$[\alpha]_D^{20}$ = + 13 (c 1.0, MeOH)

Source of chirality: microbial reduction

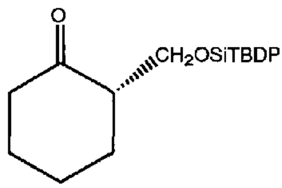
Absolute configuration: 1S,2S

$C_{23}H_{32}O_2Si$

2-hydroxymethyl cyclohexanol *ter*-butyldiphenylsilyl ether

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996**, *7*, 9



$[\alpha]_D^{20}$ = – 19 (c 1.0, $CHCl_3$)

Source of chirality: microbial reduction

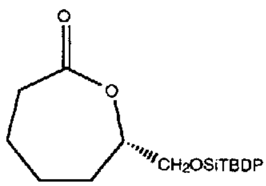
Absolute configuration: 2S

$C_{23}H_{30}O_2Si$

2-hydroxymethyl cyclohexanone *ter*-butyldiphenylsilyl ether

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996**, *7*, 9



E.e. 99% by chiral HPLC (Chiralpak AD)

$[\alpha]_D^{20}$ = – 4; $[\alpha]_{365}^{20}$ = – 17 (c 1.3, $CHCl_3$)

Source of chirality: microbial reduction

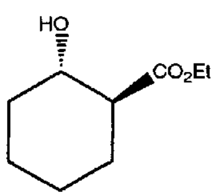
$C_{23}H_{30}O_3Si$

Absolute configuration: 7S

7-hydroxymethyl oxepan-2-one *ter*-butyldiphenylsilyl ether

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996**, *7*, 9



E.e. 99% by chiral GC as *i*Pr-carbamate (Chirasil-Val)

$[\alpha]_D^{20}$ = + 52 (c 0.9, Et_2O)

Source of chirality: microbial reduction

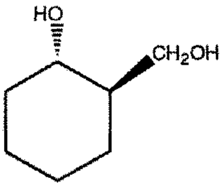
$C_9H_{16}O_3$

Ethyl 2-hydroxy-cyclohexane carboxylate

Absolute configuration: 1S,2S

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996,** *7,* 9



$[\alpha]_D^{20}$ = + 47 (c 1, MeOH)

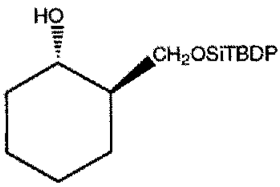
Source of chirality: microbial reduction

Absolute configuration: 1S,2R

$C_7H_{14}O_2$
2-hydroxymethyl cyclohexanol

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996,** *7,* 9



$[\alpha]_D^{20}$ = + 18 (c 1.4, MeOH)

Source of chirality: microbial reduction

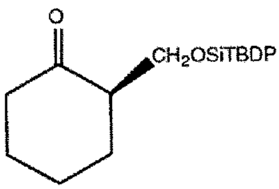
Absolute configuration: 1S,2R

$C_{23}H_{32}O_2Si$

2-hydroxymethyl cyclohexanol *ter*-butyldiphenylsilyl ether

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996,** *7,* 9



$[\alpha]_D^{20}$ = + 22 (c 1.2, $CHCl_3$)

Source of chirality: microbial reduction

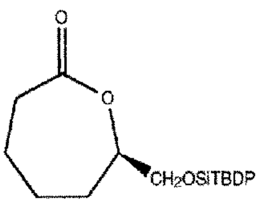
Absolute configuration: 2R

$C_{23}H_{30}O_2Si$

2-hydroxymethyl cyclohexanone *ter*-butyldiphenylsilyl ether

D.Buisson and R. Azerad

Tetrahedron: Asymmetry **1996,** *7,* 9



E.e. 99% by chiral HPLC (Chiralpak AD)

$[\alpha]_D^{20}$ = + 4; $[\alpha]_{365}^{20}$ = + 18 (c 1.3, $CHCl_3$)

Source of chirality: microbial reduction

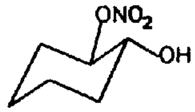
Absolute configuration: 7R

$C_{23}H_{30}O_3Si$

7-hydroxymethyl oxepan-2-one *ter*-butyldiphenylsilyl ether

Tetrahedron: Asymmetry **1996**, *7*, 13

D.Basavaiah, S.Pandiaraju and K.Muthukumaran



ee = >99% [by HPLC analysis of its 2-methoxybenzoate derivative using CHIRALCEL OD column]

$[\alpha]_D^{22}$ -71.5 (c 1.17, CH_2Cl_2)

Source of chirality : Pig liver acetone powder

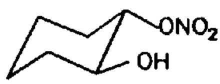
Absolute configuration : 1R,2R [assigned by conversion to (1R,2R)-cyclohexane-1,2-diol]

$C_6H_{11}NO_4$

(1R,2R)-2-Nitroxycyclohexan-1-ol

Tetrahedron: Asymmetry **1996**, *7*, 13

D.Basavaiah, S.Pandiaraju and K.Muthukumaran



ee = >99% [by HPLC analysis of its 2-methoxybenzoate derivative using CHIRALCEL OD column]

$[\alpha]_D^{22}$ +71.8 (c 0.43, CH_2Cl_2)

Source of chirality : Pig liver acetone powder

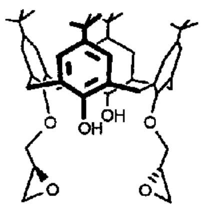
Absolute configuration : 1S,2S (based on the sign of optical rotation in comparison with that of (1R,2R)-isomer)

$C_6H_{11}NO_4$

(1S,2S)-2-Nitroxycyclohexan-1-ol

Tetrahedron: Asymmetry **1996**, *7*, 17

P. Neri,* A. Bottino, C. Geraci and M. Piattelli



$C_{50}H_{64}O_6$

$[\alpha]^{25}_D$ = +4.9 (*c* 6.6, $CHCl_3$)

Source of Chirality: (*S*)-glycidyl 3-nitrobenzensulfonate

Absolute configuration: *S,S*

5,11,17,23-Tetra-*tert*-butyl-25,27-bis(2,3-epoxypropoxy)calix[4]arene-26,28-diol

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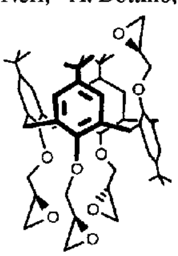
Tetrahedron: Asymmetry **1996**, *7*, 17

P. Neri,* A. Bottino, C. Geraci and M. Piattelli



$C_{56}H_{72}O_8$

$[\alpha]^{25}_D$ = +4.7 (*c* 0.95, $CHCl_3$)

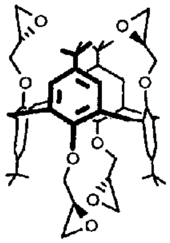
Source of Chirality: (*S*)-glycidyl tosylate

Absolute configuration: *S,S,S,S*

Partial-cone-5,11,17,23-tetra-*tert*-butyl-25,26,27,28-tetrakis(2,3-epoxypropoxy)calix[4]arene

P. Neri,* A. Bottino, C. Geraci and M. Piattelli

Tetrahedron: Asymmetry **1996,** *7,* 17



$C_{56}H_{72}O_8$

$[\alpha]^{25}_D$ = +9.2 (*c* 0.48, $CHCl_3$)

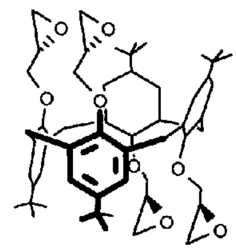
Source of Chirality: (*S*)-glycidyl tosylate

Absolute configuration: *S,S,S,S*

1,3-Alternate-5,11,17,23-tetra-*tert*-butyl-25,26,27,28-tetrakis(2,3-epoxypropoxy)calix[4]arene

P. Neri,* A. Bottino, C. Geraci and M. Piattelli

Tetrahedron: Asymmetry **1996,** *7,* 17



$C_{56}H_{72}O_8$

$[\alpha]^{25}_D$ = -28.1 (*c* 0.84, $CHCl_3$)

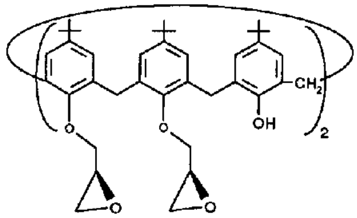
Source of Chirality: (*S*)-glycidyl tosylate

Absolute configuration: *S,S,S,S*

1,2-Alternate-5,11,17,23-tetra-*tert*-butyl-25,26,27,28-tetrakis(2,3-epoxypropoxy)calix[4]arene

P. Neri,* A. Bottino, C. Geraci and M. Piattelli

Tetrahedron: Asymmetry **1996,** *7,* 17



$C_{78}H_{100}O_{10}$

$[\alpha]^{25}_D$ = -8.4 (*c* 0.98, $CHCl_3$)

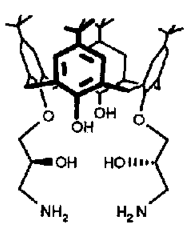
Source of Chirality: (*S*)-glycidyl tosylate

Absolute configuration: *S,S,S,S*

5,11,17,23,29,35-Hexa-*tert*-butyl-37,38,40,41-tetrakis(2,3-epoxypropoxy)calix[6]arene-39,42-diol

P. Neri,* A. Bottino, C. Geraci and M. Piattelli

Tetrahedron: Asymmetry **1996,** *7,* 17



$C_{50}H_{70}N_2O_6$

$[\alpha]^{25}_D$ = -2.2 (*c* 0.85, $CHCl_3$)

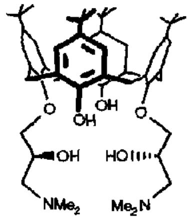
Source of Chirality: (*S*)-glycidyl 3-nitrobenzensulfonate

Absolute configuration: *S,S*

5,11,17,23-Tetra-*tert*-butyl-25,27-bis(3-amino-2-hydroxypropoxy)calix[4]arene-26,28-diol

P. Neri,* A. Bottino, C. Geraci and M. Piattelli

Tetrahedron: Asymmetry **1996**, 7, 17



$C_{54}H_{78}N_2O_6$

$[\alpha]^{25}_D$ = +12.2 (c 1.03, $CHCl_3$)

Source of Chirality: (S)-glycidyl 3-nitrobenzensulfonate

Absolute configuration: S,S

5,11,17,23-Tetra-*tert*-butyl-25,27-bis(3-dimethylamino-2-hydroxypropoxy)calix[4]arene-26,28-diol

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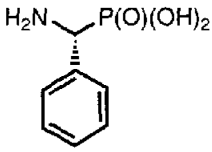
S. K. Chung and D. H. Kang

Tetrahedron: Asymmetry **1996**, 7, 21



$C_7H_{10}NO_3P$

E.e. >99% [by ^{1}H- and ^{19}F-NMR of the (R)-(+)- MTPA amide derivative]

$[\alpha]_D^{25}$= -17.8 (c 1.0, 1N NaOH)

source of chirality: asymmetric synthesis

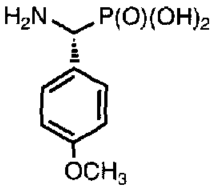
Absolute configuration: S

mp = 280-282 °C

α-Amino-phenyl-methylphosphonic acid

S. K. Chung and D. H. Kang

Tetrahedron: Asymmetry **1996**, 7, 21



$C_8H_{12}NO_4P$

E.e. >99% [by ^{1}H- and ^{19}F-NMR of the (R)-(+)- MTPA amide derivative]

$[\alpha]_D^{25}$= -25.8 (c 0.58, 1N NaOH)

source of chirality: asymmetric synthesis

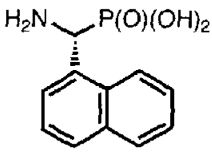
Absolute configuration: S

mp =310-312 °C

α-Amino-(p-methoxy)-phenyl-methylphosphonic acid

S. K. Chung and D. H. Kang

Tetrahedron: Asymmetry **1996**, 7, 21



$C_{11}H_{12}NO_3P$

E.e. >99% [by ^{1}H- and ^{19}F-NMR of the (R)-(+)- MTPA amide derivative]

$[\alpha]_D^{25}$= 30.4 (c 0.9, 1N NaOH)

source of chirality: asymmetric synthesis

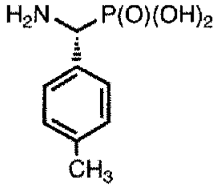
Absolute configuration: S

mp =287-289 °C

α-Amino-(1-naphthyl)-methylphosphonic acid

Tetrahedron: Asymmetry **1996,** 7, 21

S. K. Chung and D. H. Kang



E.e. >99% [by ^{1}H-and ^{19}FNMR of the (R)-(+)- MTPA amide derivative]

$[\alpha]_D^{25}$= -28.2 (c 1.0, 1N NaOH)

source of chirality: asymmetric synthesis

Absolute configuration: S

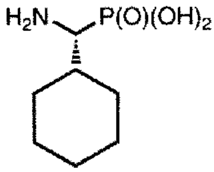
mp =280-283 °C

$C_8H_{12}NO_3P$

α-Amino-(p-methyl)-phenyl-methylphosphonic acid

Tetrahedron: Asymmetry **1996,** 7, 21

S. K. Chung and D. H. Kang



E.e.= 56% [by ^{1}H-and ^{19}F-NMR of the (R)-(+)- MTPA amide derivative]

$[\alpha]_D^{25}$= -20.3 (c 0.5, 1N NaOH)

source of chirality: asymmetric synthesis

Absolute configuration: unknown

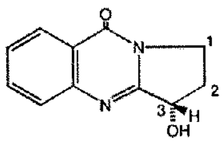
mp =267-269 °C

$C_7H_{16}NO_3P$

α-Amino-cyclohexyl-methylphosphonic acid

Tetrahedron: Asymmetry **1996,** 7, 25

B. S. Joshi, M. G. Newton, D. Lee, A. D. Barber and S. W. Pelletier



$C_{11}H_{10}N_2O_2$

(-)-Vasicinone

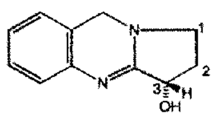
$[\alpha]_D^{20}$ = -122 (C = [illegible], $CHCl_3$)

Source of chirality: *Adhatoda vasica,* Nees Leaves

Absolute configuration 3*S*

Tetrahedron: Asymmetry **1996,** 7, 25

B. S. Joshi, M. G. Newton, D. Lee, A. D. Barber and S. W. Pelletier



$C_{11}H_{12}N_2O$

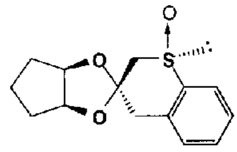
(-)-Vasicine

$[\alpha]_D^{20}$ = -210 (C = 2, $CHCl_3$)

Source of chirality: *Adhatoda vasica,* Nees Leaves

Absolute configuration 3*S*

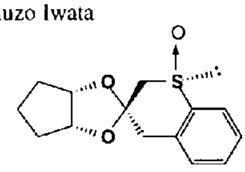
Naoyoshi Maezaki, Motohiro Soejima, Atsunobu Sakamoto, Ikuyo Sakamoto, Yûki Matsumori, Tetsuaki Tanaka, Toshimasa Ishida, Yasuko In, and Chuzo Iwata	*Tetrahedron: Asymmetry* **1996,** *7,* 29



E.e. = 100% [by HPLC on chiral column]
$[\alpha]_D^{27}$ −49.01 (c = 0.5100 , $CHCl_3$)
Source of chirality: *N*-(phenylsulfonyl)(3,3-dichlorocamphoryl)oxaziridine
Absolute configuration: *R*

$C_{14}H_{16}O_3S$
(*R*s)-*endo*-Thiochroman-1-oxide-3-spiro-3'-2', 4'-dioxabicyclo[3.3.0]octane

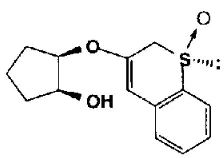
Naoyoshi Maezaki, Motohiro Soejima, Atsunobu Sakamoto, Ikuyo Sakamoto, Yûki Matsumori, Tetsuaki Tanaka, Toshimasa Ishida, Yasuko In, and Chuzo Iwata	*Tetrahedron: Asymmetry* **1996,** *7,* 29



E.e. = 100% [by HPLC on chiral column]
$[\alpha]_D^{25}$ −159.3 (c = 1.225, $CHCl_3$)
Source of chirality: *N*-(phenylsulfonyl)(3,3-dichlorocamphoryl)oxaziridine
Absolute configuration: *R*

$C_{14}H_{16}O_3S$
(*R*s)-*exo*-Thiochroman-1-oxide-3-spiro-3'-2', 4'-dioxabicyclo[3.3.0]octane

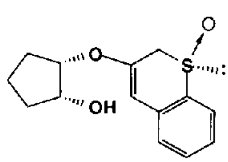
Naoyoshi Maezaki, Motohiro Soejima, Atsunobu Sakamoto, Ikuyo Sakamoto, Yûki Matsumori, Tetsuaki Tanaka, Toshimasa Ishida, Yasuko In, and Chuzo Iwata	*Tetrahedron: Asymmetry* **1996,** *7,* 29



$[\alpha]_D^{20}$ −228.9 (c = 1.745, $CHCl_3$)
Source of chirality: *N*-(phenylsulfonyl)(3,3-dichlorocamphoryl)oxaziridine
Absolute configuration: 1*R*, 2*S*, *R*s

$C_{14}H_{16}O_3S$
(*R*s)-3-[(1*R*, 2*S*)-2-Hydroxycyclopentyloxy]thiochroman-3-ene-1-oxide

Naoyoshi Maezaki, Motohiro Soejima, Atsunobu Sakamoto, Ikuyo Sakamoto, Yûki Matsumori, Tetsuaki Tanaka, Toshimasa Ishida, Yasuko In, and Chuzo Iwata	*Tetrahedron: Asymmetry* **1996,** *7,* 29

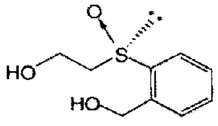


$[\alpha]_D^{25}$ −103.5 (c = 1.350, $CHCl_3$)
Source of chirality: *N*-(phenylsulfonyl)(3,3-dichlorocamphoryl)oxaziridine
Absolute configuration: 1*S*, 2*R*, *R*s

$C_{14}H_{16}O_3S$
(*R*s)-3-[(1*S*, 2*R*)-2-Hydroxycyclopentyloxy]thiochroman-3-ene-1-oxide

Tetrahedron: Asymmetry **1996,** 7, 29

Naoyoshi Maezaki, Motohiro Soejima, Atsunobu Sakamoto, Ikuyo Sakamoto, Yûki Matsumori, Tetsuaki Tanaka, Toshimasa Ishida, Yasuko In, and Chuzo Iwata



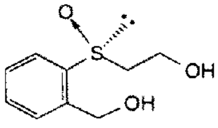
$C_9H_{12}O_3S$

(*R*)-2-Hydroxyethyl (*o*-hydroxymethyl)phenyl sulfoxide

$[\alpha]_D^{12}$ +161.5 (c = 0.2400, MeOH)
Source of chirality: *N*-(phenylsulfonyl)(3,3-dichlorocamphoryl)oxaziridine
Absolute configuration: *R*

Tetrahedron: Asymmetry **1996,** 7, 29

Naoyoshi Maezaki, Motohiro Soejima, Atsunobu Sakamoto, Ikuyo Sakamoto, Yûki Matsumori, Tetsuaki Tanaka, Toshimasa Ishida, Yasuko In, and Chuzo Iwata



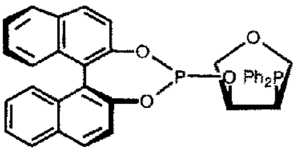
$C_9H_{12}O_3S$

(*S*)-2-Hydroxyethyl (*o*-hydroxymethyl)phenyl sulfoxide

$[\alpha]_D^{29}$ −179.8 (c = 0.7800, MeOH)
Source of chirality: *N*-(phenylsulfonyl)(3,3-dichlorocamphoryl)oxaziridine
Absolute configuration: *S*

A. Kless, J. Holz, D. Heller, R. Kadyrov, R. Selke, Ch. Fischer, A. Börner

Tetrahedron: Asymmetry **1996,** 7, 33



$C_{36}H_{28}O_4P_2$

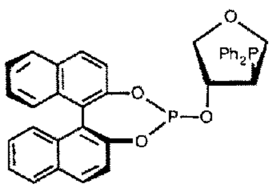
(*3R,4S*)-4-[(*S*)-Bis(naphthoxy)phosphinoxy]-3-diphenylphosphinotetrahydrofuran

$[\alpha]_D^{24}$ = +265.7 (*c* 1, $CHCl_3$)

Source of chirality: L-ascorbic acid
Absolute configuration: *S*,3*R*,4*S*

A. Kless, J. Holz, D. Heller, R. Kadyrov, R. Selke, Ch. Fischer, A. Börner

Tetrahedron: Asymmetry **1996,** 7, 33



$C_{36}H_{28}O_4P_2$

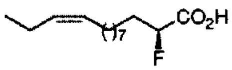
(*3R,4R*)-4-[(*S*)-Bis(naphthoxy)phosphinoxy]-3-diphenylphosphinotetrahydrofuran

$[\alpha]_D^{32}$ = +214.1 (*c* 1, $CHCl_3$)

Source of chirality: D-isoascorbic acid
Absolute configuration: *S*,3*R*,4*R*

Tetrahedron: Asymmetry **1996**, *7*, 37

Achot P. Khrimian, James E. Oliver, Rolland M. Waters,
Sini Panicker, Jesse M. Nicholson, and Jerome A. Klun



E.e. = 94 % [GC of (*S*)-α -methylbenzylamide]

$[\alpha]_D^{25}$ = -6.5 (c 0.56 $CHCl_3$)

Source of chirality: asymmetric synthesis

$C_{14}H_{25}FO_2$

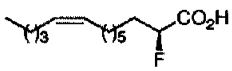
2-Fluoro-(Z)-11-tetradecenoic acid

Absolute configuration S

(assigned by correlation with homologous acid)

Tetrahedron: Asymmetry **1996**, *7*, 37

Achot P. Khrimian, James E. Oliver, Rolland M. Waters,
Sini Panicker, Jesse M. Nicholson, and Jerome A. Klun



E.e. = 94 % [GC of (*S*)-α -methylbenzylamide]

$[\alpha]_D^{25}$ = -6.6 (c 1.15 $CHCl_3$)

Source of chirality: asymmetric synthesis

$C_{14}H_{25}FO_2$

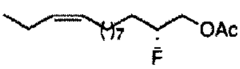
2-Fluoro-(Z)-9-tetradecenoic acid

Absolute configuration S

(assigned by correlation with homologous acid)

Tetrahedron: Asymmetry **1996**, *7*, 37

Achot P. Khrimian, James E. Oliver, Rolland M. Waters,
Sini Panicker, Jesse M. Nicholson, and Jerome A. Klun



E.e. = 92 % (GC Mosher ester of interm.alkyne)

$[\alpha]_D^{25}$ = -4.6 (c 0.94 $CHCl_3$)

Source of chirality: 2-fluoro carboxylic acid

$C_{16}H_{29}FO_2$

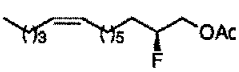
2-Fluoro-(Z)-11-tetradecen-1-ol acetate

Absolute configuration R

(assigned by chemical correlation)

Tetrahedron: Asymmetry **1996**, *7*, 37

Achot P. Khrimian, James E. Oliver, Rolland M. Waters,
Sini Panicker, Jesse M. Nicholson, and Jerome A. Klun



E.e. = 92 % (GC Mosher ester of interm.alkyne)

$[\alpha]_D^{25}$ = +4.4 (c 1.01 $CHCl_3$)

Source of chirality: 2-fluoro carboxylic acid

$C_{16}H_{29}FO_2$

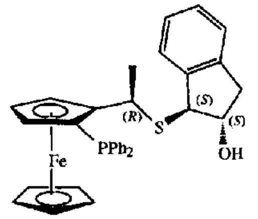
2-Fluoro-(Z)-9-tetradecen-1-ol acetate

Absolute configuration S

(assigned by chemical correlation)

John Spencer, Volker Gramlich, Robert Häusel, and Antonio Togni

Tetrahedron: Asymmetry **1996**, *7*, 41



$C_{33}H_{31}FeOPS$

trans-1-{(*R*)-1'-[(*S*)-(diphenylphosphino)ferrocenyl]ethyl}thiolato-2-indanol

D.e. = 100 % (by [1]H and [31]P NMR).

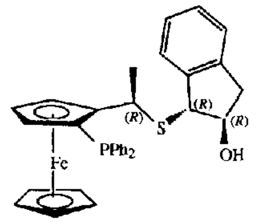
$[\alpha]_D$=-387(c=0.38,CHCl$_3$).

Source of chirality: Synthesis employing enantiomerically pure ferrocenylthiol.

Absolute configuration: (*R*, *S*, *S*)-(*S*)
(X-ray of P-oxide determined)

John Spencer, Volker Gramlich, Robert Häusel, and Antonio Togni

Tetrahedron: Asymmetry **1996**, *7*, 41



$C_{33}H_{31}FeOPS$

trans-1-{(*R*)-1'-[(*S*)-(diphenylphosphino)ferrocenyl]ethyl}thiolato-2-indanol

D.e. = 100 % (by [1]H and [31]P NMR).

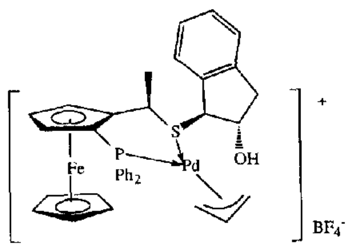
$[\alpha]_D$=-328 (c=0.29,CHCl$_3$).

Source of chirality: Synthesis employing enantiomerically pure ferrocenylthiol.

Absolute configuration: (*R*, *S*, *R*)-(*R*)
(by comparison with other diastereomer)

John Spencer, Volker Gramlich, Robert Häusel, and Antonio Togni

Tetrahedron: Asymmetry **1996**, *7*, 41



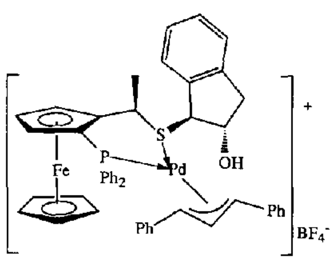
$C_{36}H_{36}BF_4FeOPPdS$

$[\alpha]_D$=-131(c=0.16, CH$_2$Cl$_2$)
Source of chirality: synthesis using enantiomerically pure P,S,O ligand

Absolute configuration: (*R*, *S*, *S*)-(*S*)
(X-ray determined)

John Spencer, Volker Gramlich, Robert Häusel, and Antonio Togni

Tetrahedron: Asymmetry **1996**, *7*, 41



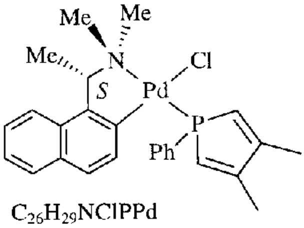
$C_{48}H_{45}BF_4FeOPPdS$

$[\alpha]_D$=-133 (c=0.11, CH$_2$Cl$_2$)
Source of chirality: synthesis using enantiomerically pure P,S,O ligand

Absolute configuration: (*R*, *S*, *S*)-(*S*)
(Abs. config. of ligand determined by X-ray)

Tetrahedron: Asymmetry **1996,** *7,* 45

S. K. Loh, K. F. Mok, P. H. Leung, A. J. P. White, D. J. Williams



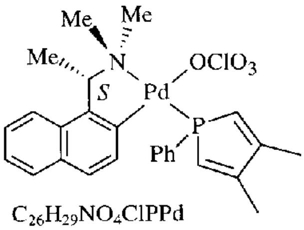
$C_{26}H_{29}NClPPd$

E. e. = > 99% (by nmr)
$[\alpha]_D = +334.9$ (*c* 1.0, CH_2Cl_2)

Source of chirality: asymm. synth.

Tetrahedron: Asymmetry **1996,** *7,* 45

S. K. Loh, K. F. Mok, P. H. Leung, A. J. P. White, D. J. Williams



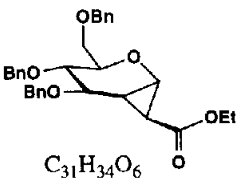
$C_{26}H_{29}NO_4ClPPd$

E. e. = > 99% (by nmr)
$[\alpha]_D = +285.0$ (*c* 0.2, CH_2Cl_2)

Source of chirality: asymm. synth.

Tetrahedron: Asymmetry **1996,** *7,* 49

C.M. Timmers, M.A. Leeuwenburgh, J.C. Verheijen,
G.A. van der Marel and J.H. van Boom

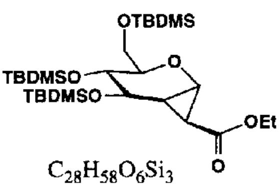


$C_{31}H_{34}O_6$

D.e. > 97% (by 300 MHz ^1H NMR spectroscopy)
$[\alpha]_D^{20} = +21.6$ (c 1.0, $CHCl_3$)
Source of chirality: D-glucal
Absolute configuration: 1S, 2S, 3R, 4S, 5R, 7S
1,5-anhydro-2-deoxy-1,2-*C*-(*exo*-carbethoxymethylene)-3,4,6-tri-*O*-benzyl-α-D-glucitol

Tetrahedron: Asymmetry **1996,** *7,* 49

C.M. Timmers, M.A. Leeuwenburgh, J.C. Verheijen,
G.A. van der Marel and J.H. van Boom

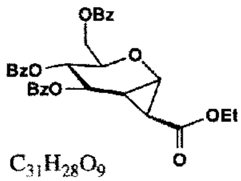


$C_{28}H_{58}O_6Si_3$

D.e. > 97% (by 300 MHz ^1H NMR spectroscopy)
$[\alpha]_D^{20} = +17.4$ (c 1.0, $CHCl_3$)
Source of chirality: D-glucal
Absolute configuration: 1S, 2S, 3R, 4S, 5R, 7S
1,5-anhydro-2-deoxy-1,2-*C*-(*exo*-carbethoxymethylene)-3,4,6-tri-*O*-(*tert*-butyldimethylsilyl)-α-D-glucitol

C.M. Timmers, M.A. Leeuwenburgh, J.C. Verheijen, G.A. van der Marel and J.H. van Boom

Tetrahedron: Asymmetry **1996,** *7,* 49

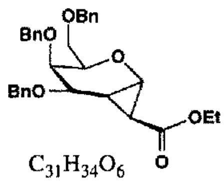


$C_{31}H_{28}O_9$

D.e. > 97% (by 300 MHz ^{1}H NMR spectroscopy)
$[\alpha]_D^{20}$ = -4.4 (c 1.0, $CHCl_3$)
Source of chirality: D-glucal
Absolute configuration: 1S, 2S, 3R, 4S, 5R, 7S
1,5-anhydro-2-deoxy-1,2-*C*-(*exo*-carbethoxymethylene)-3,4,6-tri-*O*-benzoyl-α-D-glucitol

C.M. Timmers, M.A. Leeuwenburgh, J.C. Verheijen, G.A. van der Marel and J.H. van Boom

Tetrahedron: Asymmetry **1996,** *7,* 49

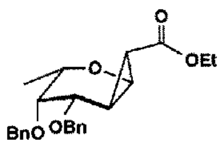


$C_{31}H_{34}O_6$

D.e. > 97% (by 300 MHz ^{1}H NMR spectroscopy)
$[\alpha]_D^{20}$ = -19.2 (c 1.0, $CHCl_3$)
Source of chirality: D-galactal
Absolute configuration: 1S, 2S, 3R, 4R, 5R, 7S
1,5-anhydro-2-deoxy-1,2-*C*-(*exo*-carbethoxymethylene)-3,4,6-tri-*O*-benzyl-α-D-galactitol

C.M. Timmers, M.A. Leeuwenburgh, J.C. Verheijen, G.A. van der Marel and J.H. van Boom

Tetrahedron: Asymmetry **1996,** *7,* 49

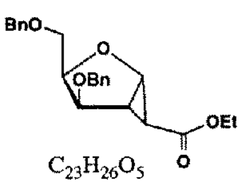


$C_{24}H_{28}O_5$

D.e. = 47% (by 300 MHz ^{1}H NMR spectroscopy)
$[\alpha]_D^{20}$ = -9.0 (c 1.0, $CHCl_3$)
Source of chirality: L-fucal
Absolute configuration: 1R, 2R, 3S, 4R, 5S, 7R
1,5-anhydro-2-deoxy-3,4-di-*O*-benzyl-1,2-*C*-(*exo*-carbethoxymethylene)-α-L-fucitol

C.M. Timmers, M.A. Leeuwenburgh, J.C. Verheijen, G.A. van der Marel and J.H. van Boom

Tetrahedron: Asymmetry **1996,** *7,* 49

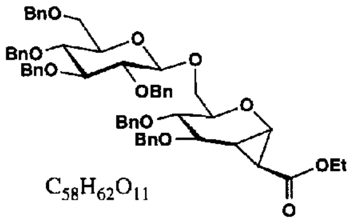


$C_{23}H_{26}O_5$

D.e. = 61% (by 300 MHz ^{1}H NMR spectroscopy)
$[\alpha]_D^{20}$ = -21.8 (c 1.0, $CHCl_3$)
Source of chirality: D-xylal
Absolute configuration: 1S, 2S, 3R, 4R, 6S
1,4-anhydro-2-deoxy-3,5-di-*O*-benzyl-1,2-*C*-(*exo*-carbethoxymethylene)-α-D-xylitol

C.M. Timmers, M.A. Leeuwenburgh, J.C. Verheijen, G.A. van der Marel and J.H. van Boom

Tetrahedron: Asymmetry **1996,** *7,* 49



$C_{58}H_{62}O_{11}$

D.e. > 97% (by 300 MHz ^{1}H NMR spectroscopy)
$[\alpha]_D^{20}$ = -7.0 (c 1.0, $CHCl_3$)
Source of chirality: D-glucal
Absolute configuration: 1S, 2S, 3R, 4S, 5R, 7S
1,5-anhydro-3,4-di-*O*-benzyl-2-deoxy-1,2-*C*-(*exo*-carbethoxy-methylene)-6-*O*-(2,3,4,6-tetra-*O*-benzyl-β-D-glucopyranosyl)-α-D-glucitol

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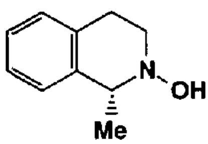
Y. Ukaji, Y. Kenmoku, and K. Inomata

Tetrahedron: Asymmetry **1996,** *7,* 53



$C_{10}H_{13}NO$

2-Hydroxy-1-methyl-1,2,3,4-tetrahydroisoquinoline

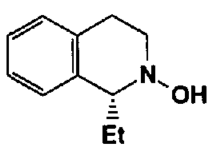
Ee = 47% (by HPLC on Chiralcel OD-H)
$[\alpha]_D^{25}$ +34 (c 1.00, MeOH)

Sourse of chirality: asymm. synth.

Absolute configuration R
(assigned by chemical correlation)

Y. Ukaji, Y. Kenmoku, and K. Inomata

Tetrahedron: Asymmetry **1996,** *7,* 53



$C_{11}H_{15}NO$

1-Ethyl-2-hydroxy-1,2,3,4-tetrahydroisoquinoline

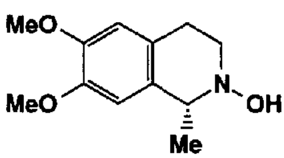
Ee = 48% (by HPLC on Chiralcel OD-H)
$[\alpha]_D^{25}$ +27 (c 1.00, MeOH)

Sourse of chirality: asymm. synth.

Absolute configuration R
(tentatively assigned by specific rotation compared to 2-hydroxy-1-methyl-1,2,3,4-tetrahydroisoquinoline)

Y. Ukaji, Y. Kenmoku, and K. Inomata

Tetrahedron: Asymmetry **1996,** *7,* 53



$C_{12}H_{17}NO_3$

2-Hydroxy-6,7-dimethoxy-1-methyl-1,2,3,4-tetrahydroisoquinoline

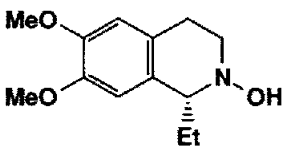
Ee = 34% (by HPLC on Chiralcel OD-H)
$[\alpha]_D^{25}$ +15 (c 0.30, MeOH)

Sourse of chirality: asymm. synth.

Absolute configuration R
(assigned by chemical correlation)

Y. Ukaji, Y. Kenmoku, and K. Inomata

Tetrahedron: Asymmetry **1996,** *7,* 53



$C_{13}H_{19}NO_3$

1-Ethyl-2-hydroxy-6,7-dimethoxy-1,2,3,4-tetrahydroisoquinoline

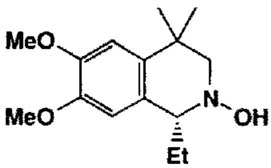
Ee = 65% (by HPLC on Chiralcel OD-H)
$[\alpha]_D^{25}$ +33 (c 1.00, MeOH)

Sourse of chirality: asymm. synth.

Absolute configuration R
(tentatively assigned by specific rotation compared to 2-hydroxy-6,7-dimethoxy-1-methyl-1,2,3,4-tetrahydroisoquinoline)

Y. Ukaji, Y. Kenmoku, and K. Inomata

Tetrahedron: Asymmetry **1996,** *7,* 53



$C_{15}H_{23}NO_3$

1-Ethyl-2-hydroxy-6,7-dimethoxy-4,4-dimethyl-1,2,3,4-tetrahydroisoquinoline

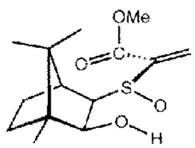
Ee = 76% (by conversion to MTPA ester and ^{1}H NMR analysis)
$[\alpha]_D^{25}$ +41 (c 0.92, MeOH)

Sourse of chirality: asymm. synth.

Absolute configuration R
(tentatively assigned by specific rotation compared to 2-hydroxy-6,7-dimethoxy-1-methyl-1,2,3,4-tetrahydroisoquinoline)

Teng-Kuei Yang*, Ching-JungChen, Dong-Sheng Lee, Ting-Ting Jung, Yao-Zhong Jiang, Ai-Qiao Mi

Tetrahedron: Asymmetry **1996,** *7,* 57



$[\alpha]_D^{20}$ 12.9 (c 1.4, $CHCl_3$).

E.e. = >98% (by HPLC analysis)

Source of chirality: Asymmetric synthesis

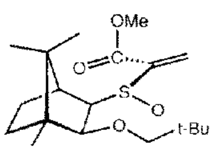
Absolute configuration: 1*R*, 2*S*, 3*R*, *SR*

$C_{14}H_{22}O_4S$

(1'-methoxycarbonylethenyl)-(*SR*)-sulfinyl-2*S*-hydroxy-1*R*,7,7-trimethylbicyclo [2.2.1]heptane **5a**

Teng-Kuei Yang*, Ching-JungChen, Dong-Sheng Lee, Ting-Ting Jung, Yao-Zhong Jiang, Ai-Qiao Mi

Tetrahedron: Asymmetry **1996,** *7,* 57



$[\alpha]_D^{20}$ 19.5 (c 1.0, $CHCl_3$).

E.e. = >98% (by HPLC analysis)

Source of chirality: Asymmetric synthesis

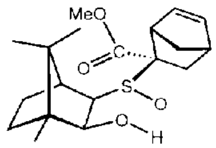
Absolute configuration: 1*R*, 2*S*, 3*R*, *SR*.

$C_{19}H_{32}O_4S$

(1'-methoxycarbonylethenyl)-(*SR*)-sulfinyl-2*S*-neopentoxy-1*R*,7,7-trimethylbicyclo [2.2.1]heptane **5b**

Teng-Kuei Yang*, Ching-JungChen, Dong-Sheng Lee, Ting-Ting Jung, Yao-Zhong Jiang, Ai-Qiao Mi

Tetrahedron: Asymmetry **1996,** *7,* 57



$[\alpha]_D^{20}$ 32.9 (c 2.4, $CHCl_3$).

E.e. = >98% (by HPLC analysis)

Source of chirality: Asymmetric cycloaddition

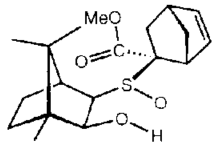
Absolute configuration: 1*R*, 2*S*, 3*R*, *SR*, 1'*S*

$C_{19}H_{28}O_4S$

3*R*-{(1'*S*, 2'*R*, 4'*S*)-2-methoxycarbonylbicyclo[2.2.1]hept-5'-en-2'-yl-(*SR*)-sulfinyl}
-2*S*-hydroxy-1*R*,7,7-trimethylbicyclo[2.2.1]heptane Endo-(*Re*)- **6a**

Teng-Kuei Yang*, Ching-JungChen, Dong-Sheng Lee, Ting-Ting Jung, Yao-Zhong Jiang, Ai-Qiao Mi

Tetrahedron: Asymmetry **1996,** *7,* 57



$[\alpha]_D^{20}$ 180.4 (c 3.2, $CHCl_3$).

E.e. = >98% (by HPLC analysis)

Source of chirality: Asymmetric cycloaddition

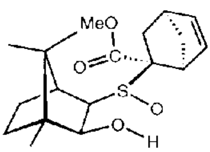
Absolute configuration: 1*R*, 2*S*, 3*R*, *SR*, 1'*R*

$C_{19}H_{29}NO_2S$

3*R*-{(1'*R*, 2'*S*, 4'*R*)-2-methoxycarbonylbicyclo[2.2.1]hept-5'-en-2'-yl-(*SR*)-sulfinyl}
-2*S*-hydroxy-1*R*,7,7-trimethylbicyclo[2.2.1]heptane Endo-(*Si*)- **7a**

Teng-Kuei Yang*, Ching-JungChen, Dong-Sheng Lee, Ting-Ting Jung, Yao-Zhong Jiang, Ai-Qiao Mi

Tetrahedron: Asymmetry **1996,** *7,* 57



$[\alpha]_D^{20}$ 28.9 (c 2.0, $CHCl_3$).

E.e. = >98% (by HPLC analysis)

Source of chirality: Asymmetric cycloaddition

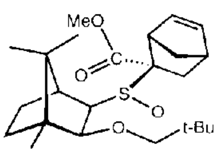
Absolute configuration: 1*R*, 2*S*, 3*R*, *SR*, 1'*S*

$C_{20}H_{31}NO_2S$

3*R*-{(1'*R*, 2'*R*, 4'*R*)-2-methoxycarbonylbicyclo[2.2.1]hept-5'-en-2'-yl-(*SR*)-sulfinyl}
-2*S*-hydroxy-1*R*,7,7-trimethylbicyclo[2.2.1]heptane Exo-(*Re*)- **9a**

Teng-Kuei Yang*, Ching-JungChen, Dong-Sheng Lee, Ting-Ting Jung, Yao-Zhong Jiang, Ai-Qiao Mi

Tetrahedron: Asymmetry **1996,** *7,* 57



$[\alpha]_D^{20}$ -6.1 (c 1.9, $CHCl_3$).

E.e. = >98% (by HPLC analysis)

Source of chirality: Asymmetric cycloaddition

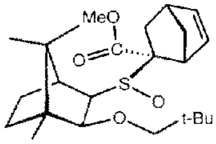
Absolute configuration: 1*R*, 2*S*, 3*R*, *SR*, 1'*S*

$C_{24}H_{38}O_4S$

3*R*-{(1'*S*, 2'*R*, 4'*S*)-2-methoxycarbonylbicyclo[2.2.1]hept-5'-en-2'-yl-(*SR*)-sulfinyl}
-2*S*-neopentoxy-1*R*,7,7-trimethylbicyclo[2.2.1]heptane Endo-(*Re*)- **6b**

Teng-Kuei Yang*, Ching-JungChen, Dong-Sheng Lee,
Ting-Ting Jung, Yao-Zhong Jiang, Ai-Qiao Mi

Tetrahedron: Asymmetry **1996,** *7,* 57

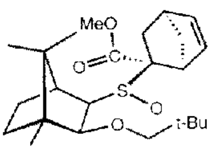


$[\alpha]_D^{20}$ 113.6 (c 2.1, $CHCl_3$).
E.e. = >98% (by HPLC analysis)
Source of chirality: Asymmetric cycloaddition
Absolute configuration: 1*R*, 2*S*, 3*R*, *SR*, 1'*R*

$C_{24}H_{38}O_4S$
3*R*-{(1'*R*, 2'*S*, 4'*R*)-2-methoxycarbonylbicyclo[2.2.1]hept-5'-en-2'-yl-(*SR*)-sulfinyl}
-2*S*-neopentoxy-1*R*,7,7-trimethylbicyclo[2.2.1]heptane Endo-(*Si*)- **7b**

Teng-Kuei Yang*, Ching-JungChen, Dong-Sheng Lee,
Ting-Ting Jung, Yao-Zhong Jiang, Ai-Qiao Mi

Tetrahedron: Asymmetry **1996,** *7,* 57

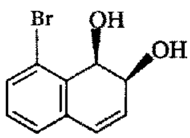


$[\alpha]_D^{20}$ -15.6 (c 1.5, $CHCl_3$).
E.e. = >98% (by HPLC analysis)
Source of chirality: Asymmetric cycloaddition
Absolute configuration: 1*R*, 2*S*, 3*R*, *SR*, 1'*S*

$C_{24}H_{38}O_4S$
3*R*-{(1'*R*, 2'*R*, 4'*R*)-2-methoxycarbonylbicyclo[2.2.1]hept-5'-en-2'-yl-(*SR*)-sulfinyl}
-2*S*-neopentoxy-1*R*,7,7-trimethylbicyclo[2.2.1]heptane Exo-(*Re*)- **9b**

Tomas Hudlicky,* Mary Ann A. Endoma, and Gabor Butora

Tetrahedron: Asymmetry **1996,** *7,* 61



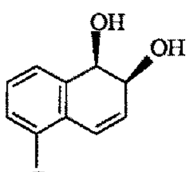
1

E.e. > 98%
$[\alpha]_D^{25}$ +28 (c=0.44 $CHCl_3$)
Source of chirality: Enzymatic dihydroxylation
Absolute configuration 1*R*, 2*S*

$C_{10}H_9O_2Br$
1,2-dihydroxy-1,2-dihydro-8-bromonaphthalene

Tomas Hudlicky,* Mary Ann A. Endoma, and Gabor Butora

Tetrahedron: Asymmetry **1996,** *7,* 61



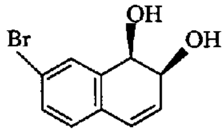
2

E.e. > 98%
$[\alpha]_D^{25}$ +84.4 (c=0.5 MeOH)
Source of chirality: Enzymatic dihydroxylation
Absolute configuration 1*R*, 2*S*

$C_{10}H_9O_2Br$
1,2-dihydroxy-1,2-dihydro-5-bromonaphthalene

Tetrahedron: Asymmetry **1996,** *7,* 61

Tomas Hudlicky,* Mary Ann A. Endoma, and Gabor Butora

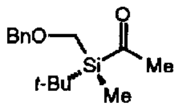


8

$C_{10}H_9O_2Br$
1,2-dihydroxy-1,2-dihydro-7-bromonaphthalene

E.e. > 98%
$[\alpha]_D^{25}$ +255 (c=1.0 MeOH)
Source of chirality: Enzymatic dihydroxylation
Absolute configuration 1*R*, 2*S*

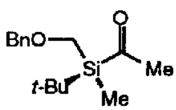
Tetrahedron: Asymmetry **1996,** *7,* 69



(*R*)-(–)

(*R*)-(–)-[(Benzyloxymethyl)(*tert*-butyl)methylsilyl] Methyl Ketone [(–)-3]. ($C_{15}H_{24}O_2Si$); $[\alpha]_D^{23}$= 9.9±2 (c = 0.8, THF). Enantiomeric purity >95% ee (determined with the precursor and verified by reduction and application of the Mosher method). Absolute configuration from NOE studies of a derivative of the precursor.

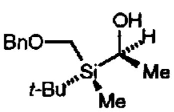
Tetrahedron: Asymmetry **1996,** *7,* 69



(*S*)-(+)

(*S*)-(+)-[(Benzyloxymethyl)(*tert*-butyl)methylsilyl] Methyl Ketone [(+)-3]. ($C_{15}H_{24}O_2Si$); $[\alpha]_D^{23}$= 12±2 (c = 1.6, THF). Enantiomeric purity >95% ee (determined with the precursor and verified by reduction and application of the Mosher method). Absolute configuration from NOE studies of a derivative of the precursor.

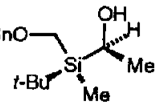
Tetrahedron: Asymmetry **1996,** *7,* 69



(+)

(Si*R*,1*R*)-(+)-1-{[(Benzyloxy)methyl](*tert*-butyl)methylsilyl}-ethanol [(+)-4]. ($C_{15}H_{26}O_2Si$); $[\alpha]_D^{23}$= 16±2 (c = 0.8, THF). Enantiomeric purity >96% ee (determined by the Mosher method). Absolute configurations from the Mosher method and from NOE studies of a derivative.

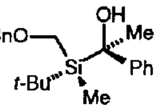
Tetrahedron: Asymmetry **1996**, *7*, 69



(+)

(Si*S*,1*R*)-(+)-1-{[(Benzyloxy)methyl](*tert*-butyl)methylsilyl}-ethanol [(+)-5]. ($C_{15}H_{26}O_2Si$); $[\alpha]_D{}^{23}$= 12±2 (c = 1.9, THF). Enantiomeric purity >96% ee (determined by the Mosher method). Absolute configurations from the Mosher method and from NOE studies of a derivative.

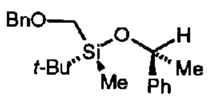
Tetrahedron: Asymmetry **1996**, *7*, 69



(+)

(Si*R*,1*R*)-(+)-1-{[(Benzyloxy)methyl](*tert*-butyl)methylsilyl}-1-phenylethanol [(+)-10]. ($C_{21}H_{30}O_2Si$); $[\alpha]_D{}^{23}$= 20±2 (c = 0.8, THF). Enantiomeric purity 92±2% ee (determined by the Mosher method of a precursor). Absolute configurations deduced from the stereochemical course of the reactions to (+)-**12** and the configurations of the precursor molecule (–)-**3** and the final product (+)-**12**.

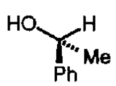
Tetrahedron: Asymmetry **1996**, *7*, 69



(+)

(+)-{(*R*)-[(Benzyloxy)methyl](*tert*-butyl)methylsilyl} (*R*)-1-Phenylethyl Ether [(+)-11]. ($C_{21}H_{30}O_2Si$); $[\alpha]_D{}^{23}$= 47±2 (c = 0.7, THF). Enantiomeric purity 92±2% ee (determined by the Mosher method of a precursor). Absolute configurations deduced from the stereochemical course of the reactions to (+)-**12** and the configurations of the precursor molecule (–)-**3** and the final product (+)-**12**.

Tetrahedron: Asymmetry **1996**, *7*, 69

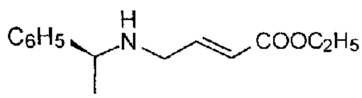


(*R*)-(+)

(*R*)-(+)-1-Phenylethanol [(+)-12]. ($C_8H_{10}O$); $[\alpha]_D{}^{23}$= 40±2 (c = 0.7, THF). Enantiomeric purity 88±2% (determined by the Mosher method). Commercially available (e.g., Fluka): $[\alpha]_D{}^{20}$= 45±1 (c = 5, MeOH).

R. Galeazzi, S. Geremia, G. Mobbili, M. Orena

Tetrahedron: Asymmetry **1996,** *7,* 79

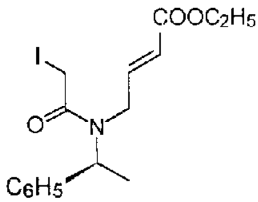


E.e. > 98%
$[\alpha]_D$ -32.6 (c 1, $CHCl_3$)
Source of chirality: (*S*)-phenylethylamine
Absolute configuration: *S*

(*S*)-*N*-[3-Ethoxycarbonyl-2(*E*)-propen-1-yl]-*N*-(1-phenyleth-1-yl)-amine

R. Galeazzi, S. Geremia, G. Mobbili, M. Orena

Tetrahedron: Asymmetry **1996,** *7,* 79

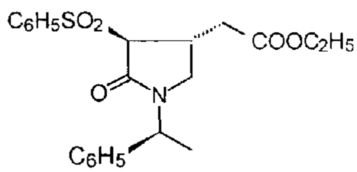


D.e. > 98%
$[\alpha]_D$ -87.2 (c 1, $CHCl_3$)
Source of chirality: (*S*)-phenylethylamine
Absolute configuration: *S*

(*S*)-*N*-[3-Ethoxycarbonyl-2(*E*)-propen-1-yl]-*N*-(1-phenyleth-1-yl)iodoacetamide

R. Galeazzi, S. Geremia, G. Mobbili, M. Orena

Tetrahedron: Asymmetry **1996,** *7,* 79

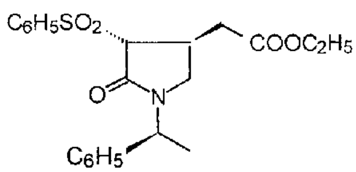


D.e. > 98%
$[\alpha]_D$ -130.8 (c 1, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: 3*S*,4*R*,1'*S*

Ethyl (3*S*,4*R*,1'*S*)-[3-benzensulphonyl-2-oxo-1-(1'-phenyleth-1'-yl)pyrrolidin-4-yl]acetate

R. Galeazzi, S. Geremia, G. Mobbili, M. Orena

Tetrahedron: Asymmetry **1996,** *7,* 79

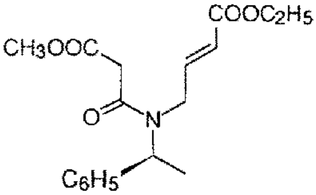


D.e. > 98%
$[\alpha]_D$ -69.7 (c 1, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: 3*R*,4*S*,1'*S*

Ethyl (3*R*,4*S*,1'*S*)-[3-benzensulphonyl-2-oxo-1-(1'-phenyleth-1'-yl)pyrrolidin-4-yl]acetate

R. Galeazzi, S. Geremia, G. Mobbili, M. Orena

Tetrahedron: Asymmetry **1996,** *7,* 79

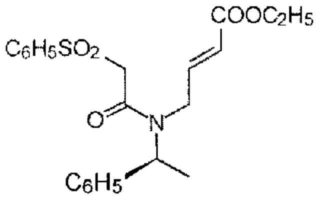


E.e. > 98%
$[\alpha]_D$ -83.2 (c 1, $CHCl_3$)
Source of chirality: (*S*)-phenylethylamine
Absolute configuration: *S*

(*S*)-*N*-[3-Ethoxycarbonyl-2(*E*)-propen-1-yl]-*N*-(1-phenyleth-1-yl)methoxycarbonylacetamide

R. Galeazzi, S. Geremia, G. Mobbili, M. Orena

Tetrahedron: Asymmetry **1996,** *7,* 79

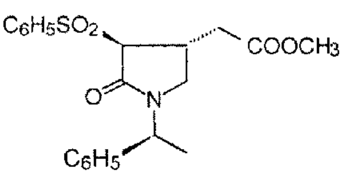


E.e. > 98%
$[\alpha]_D$ -116.1 (c 1, $CHCl_3$)
Source of chirality: (*S*)-phenylethylamine
Absolute configuration: *S*

(*S*)-*N*-[3-Ethoxycarbonyl-2(*E*)-propen-1-yl]-*N*-(1-phenyleth-1-yl)benzenesulphonylacetamide

R. Galeazzi, S. Geremia, G. Mobbili, M. Orena

Tetrahedron: Asymmetry **1996,** *7,* 79

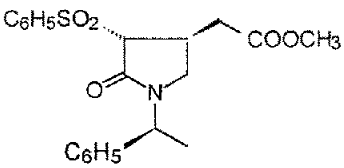


D.e. > 98%
$[\alpha]_D$ -160.7 (c 1, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: 3*S*,4*R*,1'*S*

Methyl (3*S*,4*R*,1'*S*)-[3-benzensulphonyl-2-oxo-1-(1'-phenyleth-1'-yl)pyrrolidin-4-yl]acetate

R. Galeazzi, S. Geremia, G. Mobbili, M. Orena

Tetrahedron: Asymmetry **1996,** *7,* 79

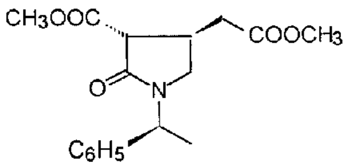


D.e. > 98%
$[\alpha]_D$ -89.3 (c 1, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: 3*R*,4*S*,1'*S*

Methyl (3*R*,4*S*,1'*S*)-[3-benzensulphonyl-2-oxo-1-(1'-phenyleth-1'-yl)pyrrolidin-4-yl]acetate

R. Galeazzi, S. Geremia, G. Mobbili, M. Orena

Tetrahedron: Asymmetry **1996,** *7,* 79

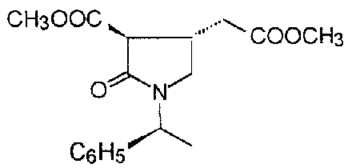


D.e. > 98%
[α]D -157.2 (c 1, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: 3*R*,4*R*,1'*S*

Methyl (3*R*,4*R*,1'*S*)-[3-methoxycarbonyl-2-oxo-1-(1'-phenyleth-1'-yl)pyrrolidin-4-yl]acetate

R. Galeazzi, S. Geremia, G. Mobbili, M. Orena

Tetrahedron: Asymmetry **1996,** *7,* 79

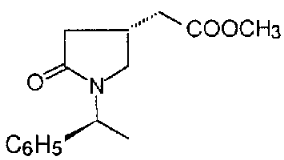


D.e. > 98%
[α]D -250.1 (c 1, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: 3*S*,4*S*,1'*S*

Methyl (3*S*,4*S*,1'*S*)-[3-methoxycarbonyl-2-oxo-1-(1'-phenyleth-1'-yl)pyrrolidin-4-yl]acetate

R. Galeazzi, S. Geremia, G. Mobbili, M. Orena

Tetrahedron: Asymmetry **1996,** *7,* 79

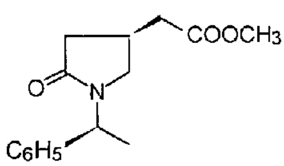


D.e. > 98%
[α]D -103.8 (c 1, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: 4*R*,1'*S*

Methyl (4*R*,1'*S*)-[2-oxo-1-(1'-phenyleth-1'-yl)pyrrolidin-4-yl]acetate

R. Galeazzi, S. Geremia, G. Mobbili, M. Orena

Tetrahedron: Asymmetry **1996,** *7,* 79

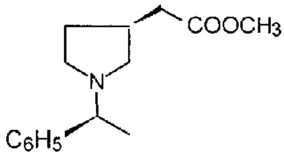


D.e. > 98%
[α]D -98.6 (c 1, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: 4*S*,1'*S*

Methyl (4*S*,1'*S*)-[2-oxo-1-(1'-phenyleth-1'-yl)pyrrolidin-4-yl]acetate

R. Galeazzi, S. Geremia, G. Mobbili, M. Orena

Tetrahedron: Asymmetry **1996,** *7,* 79



D.e. > 98%
$[\alpha]_D$ -34.2 (c 1, CH_3OH)
Source of chirality: asymmetric synthesis
Absolute configuration: 3*S*,1'*S*

Methyl (3*S*,1'*S*)-[1-(1'-phenyleth-1'-yl)pyrrolidin-3-yl]acetate

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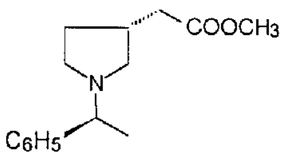
R. Galeazzi, S. Geremia, G. Mobbili, M. Orena

Tetrahedron: Asymmetry **1996,** *7,* 79



D.e. > 98%
$[\alpha]_D$ -55.3 (c 1, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: 3*R*,1'*S*

Methyl (3*R*,1'*S*)-[1-(1'-phenyleth-1'-yl)pyrrolidin-3-yl]acetate

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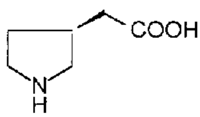
R. Galeazzi, S. Geremia, G. Mobbili, M. Orena

Tetrahedron: Asymmetry **1996,** *7,* 79

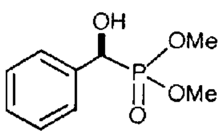


E.e. > 98%
$[\alpha]_D$ 9.2 (c 1, H_2O)
Source of chirality: asymmetric synthesis
Absolute configuration: *S*

(*S*)-3-Pyrrolidineacetic acid

Chris Meier and Wolfgang H. G. Laux

Tetrahedron: Asymmetry **1996,** *7,* 89

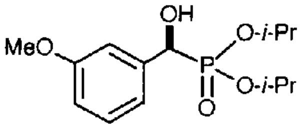


$C_9H_{13}O_4P$
Dimethyl-1-hydroxybenzylphosphonate

E.e. = 34% [by ^{31}P NMR of the (1S)-(-)-camphanic acid ester]
$[\alpha]_D^{20}$ = -15.7 (c = 0.8, $CHCl_3$)
Source of chirality: (-)-Ipc_2B-Cl
Absolute configuration: S

Tetrahedron: Asymmetry **1996,** *7,* 89

Chris Meier and Wolfgang H. G. Laux



$C_{14}H_{23}O_5P$

Di-*i*-propyl-1-hydroxymethyl(3-methoxyphenyl)phosphonate

E.e. = 52% [by ^{31}P NMR of the R-(+)-Mosher ester]

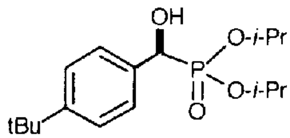
$[\alpha]_D^{20}$ = -9.0 (c = 1.0, $CHCl_3$)

Source of chirality: (-)-Ipc_2B-Cl

Absolute configuration: S

Tetrahedron: Asymmetry **1996,** *7,* 89

Chris Meier and Wolfgang H. G. Laux



$C_{17}H_{29}O_4P$

Di-*i*-propyl-1-hydroxymethyl(4-tert-butylphenyl)phosphonate

E.e. = 52% [by ^{31}P NMR of the (1S)-(-)-camphanic acid ester]

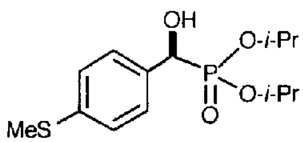
$[\alpha]_D^{20}$ = -15.6 (c = 1.0, $CHCl_3$)

Source of chirality: (-)-Ipc_2B-Cl

Absolute configuration: S

Tetrahedron: Asymmetry **1996,** *7,* 89

Chris Meier and Wolfgang H. G. Laux



$C_{14}H_{23}O_4PS$

Di-*i*-propyl-1-hydroxymethyl(4-methylthiophenyl)phosphonate

E.e. = 63% [by ^{31}P NMR of the (1S)-(-)-camphanic acid ester]

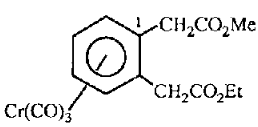
$[\alpha]_D^{20}$ = -18.8 (c = 1.1, $CHCl_3$)

Source of chirality: (-)-Ipc_2B-Cl

Absolute configuration: S

Tetrahedron: Asymmetry **1996,** *7,* 95

James A.S. Howell, Michael G. Palin, Gérard Jaouen, Bernard Malezieux, Siden Top, Jean Michel Cense, Jacques Salaün, Patrick McArdle, Desmond Cunningham, Margaret O'Gara.



$C_{16}H_{16}CrO_7$

E.e. = 99 % (by chiral HPLC)

$[\alpha]_D^{24}$ = -11.4, C = 7.1 x 10^{-3}, ethyl acetate

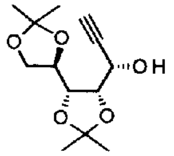
Source of chirality : PLE hydrolysis

Absolute configuration : 1S (by xray of menthyl ester)

(benzene-1,2-diacetic acid, 1-methyl, 2-ethyl ester)tricarbonylchromium

J. Marco-Contelles, Christine Destabel and José Luis Chiara

Tetrahedron: Asymmetry **1996,** *7,* 105



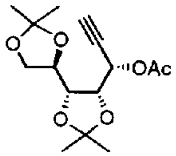
$[\alpha]_D^{25}$ -1.7 (c 1.52, $CHCl_3$)
Source of chirality: natural
Absol. configuration: 3*S* , 4*S*, 5*R*, 6*R*

$C_{13}H_{20}O_5$

1, 2-Dideoxy-4,5:6,7-di-*O*-isopropylidene-D-allo-hept-1-ynitol.

J. Marco-Contelles, Christine Destabel and José Luis Chiara

Tetrahedron: Asymmetry **1996,** *7,* 105



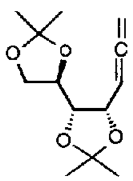
$[\alpha]_D^{25}$ -5.7 (c 1.81, $CHCl_3$)
Source of chirality: natural
Absol. configuration: 3*S* , 4*R*, 5*R*, 6*R*

$C_{15}H_{22}O_6$

3-*O*-Acetyl-1, 2-dideoxy-4,5:6,7-di-*O*-isopropylidene-D-allo-hept-1-ynitol.

J. Marco-Contelles, Christine Destabel and José Luis Chiara

Tetrahedron: Asymmetry **1996,** *7,* 105

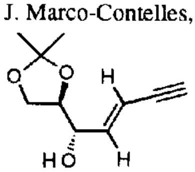


$[\alpha]_D^{25}$ -3.7 (c 0.2, $CHCl_3$)
Source of chirality: natural
Absol. configuration: 2*R*, 3*S*, 4*S*

$C_{13}H_{20}O_4$
(2*R*, 3*S*, 4*S*)-1,2:3,4-di-*O*-Isopropylidendioxy-hept-5,6-diene

J. Marco-Contelles, Christine Destabel and José Luis Chiara

Tetrahedron: Asymmetry **1996,** *7,* 105



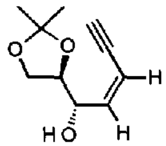
$[\alpha]_D^{25}$ -8.7 (c 0.4, $CHCl_3$)
Source of chirality: natural
Absol. configuration: 2*R*, 3*S*

$C_{10}H_{16}O_3$

(*E*) (2*R*, 3*S*)-3-Hydroxy-1,2-*O*-isopropylidendioxy-hept-4-en-6-yne

J. Marco-Contelles, Christine Destabel and José Luis Chiara

Tetrahedron: Asymmetry **1996,** *7,* 105



$[\alpha]_D^{25}$ -10 (c 0.6, $CHCl_3$)
Source of chirality: natural
Absol. configuration: 2*R*, 3*S*

$C_{10}H_{16}O_3$

(*Z*) (2*R*, 3*S*)-3-Hydroxy-1,2-*O*-isopropylidendioxy-hept-4-en-6-yne

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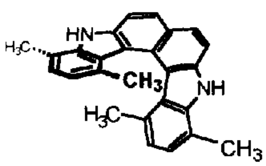
I. Pischel, S. Grimme*, S. Kotila, M. Nieger and F. Vögtle*

Tetrahedron: Asymmetry **1996,** *7,* 109



$[\alpha]_{578}^{20}$ =+588 (c=0.02, $CHCl_3$)
CD: $[\Delta\varepsilon]_{189}$ +80, $[\Delta\varepsilon]_{201}$ 0, $[\Delta\varepsilon]_{215}$ -159, $[\Delta\varepsilon]_{238}$ 0, $[\Delta\varepsilon]_{246}$ +25, $[\Delta\varepsilon]_{320}$ +69, $[\Delta\varepsilon]_{363}$ 0, $[\Delta\varepsilon]_{373}$ -8 (hexane).
Source of chirality: separation of enantiomers by HPLC using a chiral stationary phase (CDMPC)
Absolute Configuration was assigned by CD calculation

$C_{26}H_{22}N_2$
(P)-1,4,11,14-Tetramethyl-5,10-dihydro-carbazolo[3.4-c]carbazole

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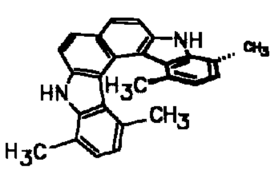
I. Pischel, S. Grimme*, S. Kotila, M. Nieger and F. Vögtle*

Tetrahedron: Asymmetry **1996,** *7,* 109



CD: $[\Delta\varepsilon]_{190}$ -82, $[\Delta\varepsilon]_{201}$ 0, $[\Delta\varepsilon]_{213}$ +160, $[\Delta\varepsilon]_{238}$ 0, $[\Delta\varepsilon]_{246}$ -32, $[\Delta\varepsilon]_{322}$ -72, $[\Delta\varepsilon]_{363}$ 0, $[\Delta\varepsilon]_{370}$ +10 (hexane)
Source of chirality: separation of enantiomers by HPLC using a chiral stationary phase (CDMPC)
Absolute Configuration was assigned by CD calculation

$C_{26}H_{22}N_2$
(M)-1,4,11,14-Tetramethyl-5,10-dihydro-carbazolo[3.4-c]carbazole

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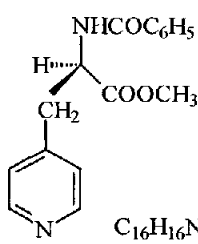
Chr. Döbler, H.-J. Kreuzfeld, M. Michalik, H.W. Krause

Tetrahedron: Asymmetry **1996,** *7,* 117

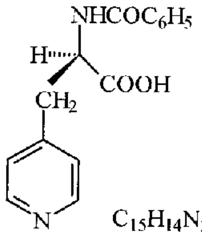


$C_{16}H_{16}N_2O_3$

86 % ee (by GLC)
$[\alpha]_D^{25}$ -84.3 (c 1.0 ,$CHCl_3$)
Source of chirality : enantioselective hydrogenation of a precursor.
Absolute configuration : *R*
(assigned by catalyst configuration)

Methyl *N*-benzoyl-3-(4-pyridyl)-D-alaninate

Chr. Döbler, H.-J. Kreuzfeld, M. Michalik, H.W. Krause	*Tetrahedron: Asymmetry* **1996,** *7,* 117

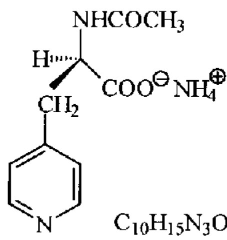


$C_{15}H_{14}N_2O_3$

N-Benzoyl-3-(4-pyridyl)-D-alanine

84 % ee (by GLC)
$[\alpha]_D^{25}$ 98.6 (c 1.0 , 1n HCl)
Source of chirality : enantioselective hydrogenation of a precursor.
Absolute configuration : *R*
(assigned by catalyst configuration)

Chr. Döbler, H.-J. Kreuzfeld, M. Michalik, H.W. Krause	*Tetrahedron: Asymmetry* **1996,** *7,* 117

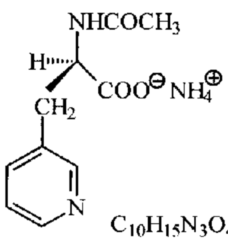


$C_{10}H_{15}N_3O_4$

Ammonium-*N*-acetyl-3-(4-pyridyl)-D-alaninate

> 99 % ee (by GLC)
$[\alpha]_D^{25}$ -92.4 (c 1.0 , EtOH)
Source of chirality : enantioselective hydrogenation of a precursor.
Absolute configuration : *R*
(assigned by catalyst configuration)

Chr. Döbler, H.-J. Kreuzfeld, M. Michalik, H.W. Krause	*Tetrahedron: Asymmetry* **1996,** *7,* 117

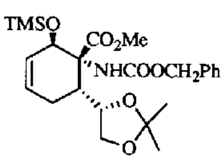


$C_{10}H_{15}N_3O_4$

Ammonium-*N*-acetyl-3-(3-pyridyl)-D-alaninate

92 % ee (by GLC)
$[\alpha]_D^{25}$ -87.1 (c 1.0 , EtOH)
Source of chirality : enantioselective hydrogenation of a precursor.
Absolute configuration : *R*
(assigned by catalyst configuration)

R. M. Ortuño, J. Ibarzo, J. d'Angelo, F. Dumas, A. Alvarez-Larena, J.F. Piniella.	*Tetrahedron: Asymmetry* **1996,** *7,* 127



$C_{24}H_{35}O_7NSi$

$[\alpha]_D$=-134.9 (c= 2.43, $CHCl_3$)

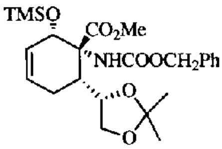
Source of chirality: D-Mannitol.

Absolute configuration 1*S*, 2*R*, 6*R*

Methyl-1-benzyloxycarbonylamino-6-[(4S)-4-(2,2-dimethyl-1,3-dioxolo)]-2-trimethylsilyloxy-3-cyclohexen-1-carboxylate.

R. M. Ortuño, J. Ibarzo, J. d'Angelo, F. Dumas, A. Alvarez-Larena, J.F. Piniella.

Tetrahedron: Asymmetry **1996,** *7,* 127



$[\alpha]_D$=-44.3 (c= 1.31, $CHCl_3$)

Source of chirality: D-Mannitol.

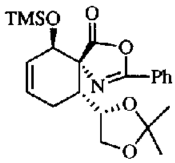
Absolute configuration 1*S*, 2*S*, 6*R*

$C_{24}H_{35}O_7NSi$

Methyl-1-benzyloxycarbonylamino-6-[(4S)-4-(2,2-dimethyl-1,3-dioxolo)]-2-trimethylsilyloxy-3-cyclohexen-1-carboxylate.

R. M. Ortuño, J. Ibarzo, J. d'Angelo, F. Dumas, A. Alvarez-Larena, J.F. Piniella.

Tetrahedron: Asymmetry **1996,** *7,* 127



$[\alpha]_D$= -120.6 (c= 0.68, $CHCl_3$)

Source of chirality: D-Mannitol.

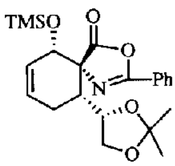
Absolute configuration 1*R*, 2*S*, 3*R*

$C_{22}H_{29}O_5NSi$

3-[(4S)-4-(2,2-dimethyl-1,3-dioxolo)]-2-spiro{4'[2'-phenyl-5'(4')-oxazolone]}-1-trimethylsilyloxy-5-cyclohexene.

R. M. Ortuño, J. Ibarzo, J. d'Angelo, F. Dumas, A. Alvarez-Larena, J.F. Piniella.

Tetrahedron: Asymmetry **1996,** *7,* 127



$[\alpha]_D$= +153.4 (c= 1.63, $CHCl_3$)

Source of chirality: D-Mannitol.

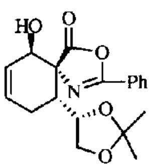
Absolute configuration 1*S*, 2*S*, 3*R*

$C_{22}H_{29}O_5NSi$

3-[(4S)-4-(2,2-dimethyl-1,3-dioxolo)]-2-spiro{4'[2'-phenyl-5'(4')-oxazolone]}-1-trimethylsilyloxy-5-cyclohexene.

R. M. Ortuño, J. Ibarzo, J. d'Angelo, F. Dumas, A. Alvarez-Larena, J.F. Piniella.

Tetrahedron: Asymmetry **1996,** *7,* 127



$[\alpha]_D$= +194.8 (c= 2.32, $CHCl_3$)

Source of chirality: D-Mannitol.

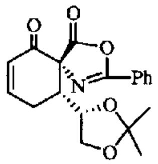
Absolute configuration 1*R*, 2*S*, 3*R*

$C_{19}H_{21}O_5N$

3-[(4S)-4-(2,2-dimethyl-1,3-dioxolo)]-2-spiro{4'[2'-phenyl-5'(4')-oxazolone]}-5-cyclohexen-1-ol.

R. M. Ortuño, J. Ibarzo, J. d'Angelo, F. Dumas, A. Alvarez-Larena, J.F. Piniella.

Tetrahedron: Asymmetry **1996,** *7,* 127



$[\alpha]_D$= +228.1 (c= 0.57, $CHCl_3$)

Source of chirality: D-Mannitol.

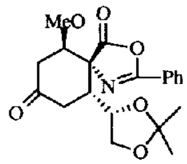
Absolute configuration 2*S*, 3*R*

$C_{19}H_{19}O_5N$

3-[(4S)-4-(2,2-dimethyl-1,3-dioxolo)]-2-spiro{4'[2'-phenyl-5'(4')-oxazolone]}-5-cyclohexen-1-one.

R. M. Ortuño, J. Ibarzo, J. d'Angelo, F. Dumas, A. Alvarez-Larena, J.F. Piniella.

Tetrahedron: Asymmetry **1996,** *7,* 127



$[\alpha]_D$= -46.6 (c= 3.97, $CHCl_3$)

Source of chirality: D-Mannitol.

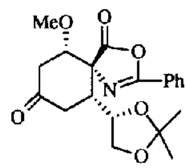
Absolute configuration 3*R*, 4*S*, 5*R*

$C_{20}H_{23}O_6N$

5-[(4S)-4-(2,2-dimethyl-1,3-dioxolo)]-4-spiro{4'[2'-phenyl-5'(4')-oxazolone]}-3-methoxy-cyclohexen-1-one.

R. M. Ortuño, J. Ibarzo, J. d'Angelo, F. Dumas, A. Alvarez-Larena, J.F. Piniella.

Tetrahedron: Asymmetry **1996,** *7,* 127



$[\alpha]_D$=+78.5 (c= 0.56, $CHCl_3$)

Source of chirality: D-Mannitol.

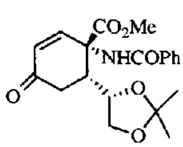
Absolute configuration 3*R*, 4*S*, 5*R*

$C_{20}H_{23}O_6N$

5-[(4S)-4-(2,2-dimethyl-1,3-dioxolo)]-4-spiro{4'[2'-phenyl-5'(4')-oxazolone]}-3-methoxy-cyclohexen-1-one.

R. M. Ortuño, J. Ibarzo, J. d'Angelo, F. Dumas, A. Alvarez-Larena, J.F. Piniella.

Tetrahedron: Asymmetry **1996,** *7,* 127



$[\alpha]_D$=+74.4 (c= 0.86, $CHCl_3$)

Source of chirality: D-Mannitol.

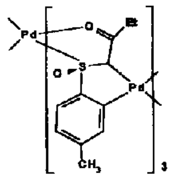
Absolute configuration 1*S*, 6*R*

$C_{20}H_{23}O_6N$

Methyl-1-benzamido-6-[(4S)-4-(2,2-dimethyl-1,3-dioxolo)]-4-oxo-2-cyclohexen-1-carboxylate.

José L. García-Ruano,* Ana M. González, Ana I. Bárcena, María J. Camazón, Carmen Navarro-Ranninger.*

Tetrahedron: Asymmetry **1996,** *7,* 139



$C_{11}H_{12}O_2SPd$

D.e.> 98%

$[\alpha]_D$ = -375.5 (c = 0.098, $CHCl_3$)

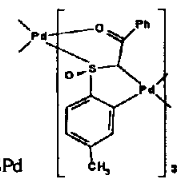
Source of chirality: (-) (S)-menthyl sulfinate

Absolute configuration: (R,R)

(Assigned by chemical and X-ray diffraction evidences)

José L. García-Ruano,* Ana M. González, Ana I. Bárcena, María J. Camazón, Carmen Navarro-Ranninger.*

Tetrahedron: Asymmetry **1996,** *7,* 139



$C_{15}H_{12}O_2SPd$

D.e.> 98%

$[\alpha]_D$ = +130.3 (c = 0.112, $CHCl_3$)

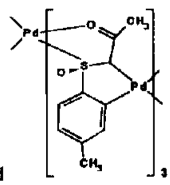
Source of chirality: (-) (S)-menthyl sulfinate

Absolute configuration: (R,R)

(Assigned by chemical and X-ray diffraction evidences)

José L. García-Ruano,* Ana M. González, Ana I. Bárcena, María J. Camazón, Carmen Navarro-Ranninger.*

Tetrahedron: Asymmetry **1996,** *7,* 139



$C_{10}H_{10}O_2SPd$

D.e.> 98%

$[\alpha]_D$ = -486.5 (c = 0.2, $CHCl_3$)

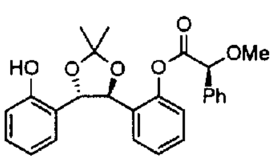
Source of chirality: (-) (S)-menthyl sulfinate

Absolute configuration: (R,R)

(Assigned by chemical and X-ray diffraction evidences)

H. Yamamoto, S. Kobayashi, and S. Kanemasa

Tetrahedron: Asymmetry **1996,** *7,* 149



$C_{26}H_{26}O_6$

E.e. > 99%

$[\alpha]_D^{24}$ = 71.2 (*c* 0.70, $CHCl_3$)

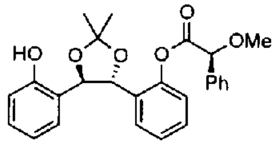
Source of chirality: esterification with (*S*)-*O*-methylmandelic acid

Absolute configuration: 4*S*,5*S*,*S*

2-[(4*S*,5*S*)-4-(2-Hydroxyphenyl)-2,2-dimethyl-1,3-dioxolan-5-yl]phenyl (*S*)-1-methoxy-1-phenylacetate

H. Yamamoto, S. Kobayashi, and S. Kanemasa

Tetrahedron: Asymmetry **1996,** *7,* 149



$C_{26}H_{26}O_6$

E.e. > 99%

$[\alpha]_D^{24}$ = 66.3 (c 1.03, $CHCl_3$)

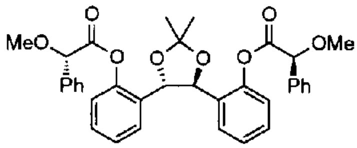
Source of chirality: esterification with (*S*)-*O*-methylmandelic acid

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

2-[(4*R*,5*R*)-4-(2-Hydroxyphenyl)-2,2-dimethyl-1,3-dioxolan-5-yl]phenyl (*S*)-1-methoxy-1-phenylacetate

H. Yamamoto, S. Kobayashi, and S. Kanemasa

Tetrahedron: Asymmetry **1996,** *7,* 149



$C_{35}H_{34}O_8$

E.e. > 99%

$[\alpha]_D^{24}$ = 148.7 (*c* 0.73, $CHCl_3$)

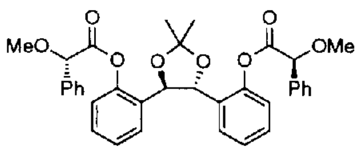
Source of chirality: esterification with (*S*)-*O*-methylmandelic acid

Absolute configuration: 4*S*,5*S*,*S*,*S*

2,2'-[(4*S*,5*S*)-2,2-dimethyl-1,3-dioxolan-4,5-diyl]phenyl bis[(*S*)-1-methoxy-1-phenylacetate]

H. Yamamoto, S. Kobayashi, and S. Kanemasa

Tetrahedron: Asymmetry **1996,** *7,* 149



$C_{35}H_{34}O_8$

E.e. > 99%

$[\alpha]_D^{24}$ = 77.3 (*c* 0.78, $CHCl_3$)

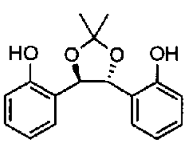
Source of chirality: esterification with (*S*)-*O*-methylmandelic acid

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

2,2'-[(4*R*,5*R*)-2,2-dimethyl-1,3-dioxolan-4,5-diyl]phenyl bis[(*S*)-1-methoxy-1-phenylacetate]

H. Yamamoto, S. Kobayashi, and S. Kanemasa

Tetrahedron: Asymmetry **1996,** *7,* 149



$C_{17}H_{18}O_4$

E.e. > 99%

$[\alpha]_D^{24}$ = 37.6 (*c* 0.29, $CHCl_3$)

Source of chirality: resolution using (*S*)-*O*-methylmandelic acid

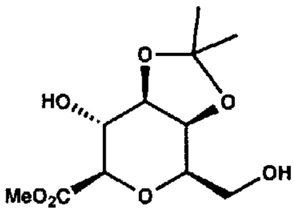
Absolute configuration: 4*R*,5*R*

[(4*S*,4*S*)-isomer is also available]

(4*R*,5*R*)-2,2-dimethyl-1,3-dioxolane

T. W. Brandstetter, M. R. Wormald, R. A. Dwek, T. D. Butters, F. M. Platt, K. E. Tsitsanou, S. E. Zographos, N. G. Oikonomakos and G. W. J. Fleet

Tetrahedron: Asymmetry **1996,** *7,* 157



E.e. = 100%

$[\alpha]_D^{25}$ = +32.4 (*c*, 1.0 in acetone)

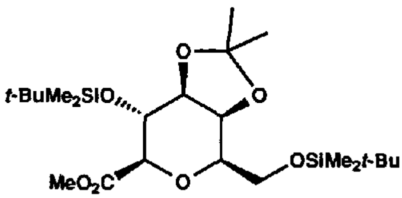
methyl 2,6-anhydro-4,5-O-isopropylidene-**D**-*glycero*-**L**-*manno*-heptonate

$C_9H_{16}N_4O_4$

Source of chirality: **D**-galactose as starting material

T. W. Brandstetter, M. R. Wormald, R. A. Dwek, T. D. Butters, F. M. Platt, K. E. Tsitsanou, S. E. Zographos, N. G. Oikonomakos and G. W. J. Fleet

Tetrahedron: Asymmetry **1996,** *7,* 157



E.e. = 100%

$[\alpha]_D^{22}$ = +13.8 (*c*, 1.0 in $CHCl_3$)

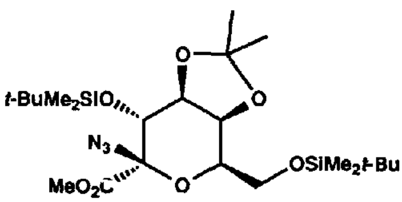
methyl 2,6-anhydro-3,7-di-O-*tert*-butyldimethylsilyl-4,5-O-isopropylidene-**D**-*glycero*-**L**-*manno*-heptonate

$C_{23}H_{46}O_7Si_2$

Source of chirality: **D**-galactose as starting material

T. W. Brandstetter, M. R. Wormald, R. A. Dwek, T. D. Butters, F. M. Platt, K. E. Tsitsanou, S. E. Zographos, N. G. Oikonomakos and G. W. J. Fleet

Tetrahedron: Asymmetry **1996,** *7,* 157



E.e. = 100%

$[\alpha]_D^{22}$ = +3.6 (*c*, 1.0 in $CHCl_3$)

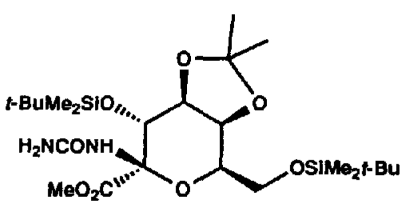
methyl 2-azido-3,7-di-O-*tert*-butyldimethylsilyl-2-deoxy-4,5-O-isopropylidene-β-**D**-*galacto*-2-heptulopyranosonate

$C_{23}H_{45}N_3O_7Si_2$

Source of chirality: **D**-galactose as starting material

T. W. Brandstetter, M. R. Wormald, R. A. Dwek, T. D. Butters, F. M. Platt, K. E. Tsitsanou, S. E. Zographos, N. G. Oikonomakos and G. W. J. Fleet

Tetrahedron: Asymmetry **1996,** *7,* 157



E.e. = 100%

$[\alpha]_D^{22}$ = -46.9 (*c*, 1.0 in MeOH)

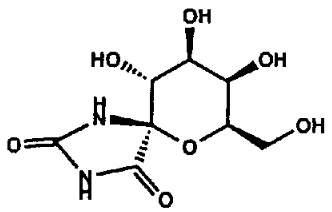
methyl 3,7-di-O-*tert*-butyldimethylsilyl-2-deoxy-4,5-O-isopropylidene-2-ureido-β-**D**-*galacto*-2-heptulopyranosonate

$C_{24}H_{48}N_2O_8Si_2$

Source of chirality: **D**-galactose as starting material

T. W. Brandstetter, M. R. Wormald, R. A. Dwek, T. D. Butters, F. M. Platt, K. E. Tsitsanou, S. E. Zographos, N. G. Oikonomakos and G. W. J. Fleet

Tetrahedron: Asymmetry **1996,** *7,* 157



E.e. = 100%

$[\alpha]_D^{22}$ = +84.4 (*c*, 1.0 in MeOH)

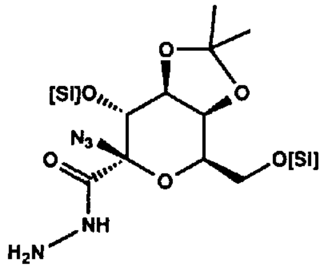
(2R,3R,4S,5R,6S) 3,4,5-trihydroxy-2-hydroxymethyl-7,9-diaza-oxaspiro-[4,5]decane-8,10-dione

$C_8H_{12}N_2O_7$

Source of chirality: **D**-galactose as starting material

T. W. Brandstetter, M. R. Wormald, R. A. Dwek, T. D. Butters, F. M. Platt, K. E. Tsitsanou, S. E. Zographos, N. G. Oikonomakos and G. W. J. Fleet

Tetrahedron: Asymmetry **1996,** *7,* 157



E.e. = 100%

$[\alpha]_D^{22}$ = -27.3 (*c*, 1.0 in $CHCl_3$)

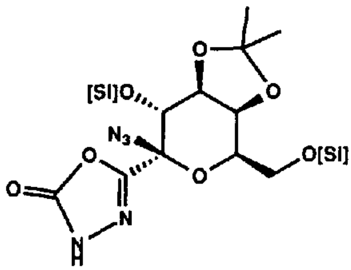
2-azido-3,7-di-*O*-*tert*-butyldimethylsilyl-2-deoxy-4,5-*O*-isopropylidene-β-**D**-*galacto*-2-heptulopyranosonic hydrazide

$C_{22}H_{45}N_5O_6Si_2$

Source of chirality: **D**-galactose as starting material

T. W. Brandstetter, M. R. Wormald, R. A. Dwek, T. D. Butters, F. M. Platt, K. E. Tsitsanou, S. E. Zographos, N. G. Oikonomakos and G. W. J. Fleet

Tetrahedron: Asymmetry **1996,** *7,* 157



E.e. = 100%

$[\alpha]_D^{25}$ = +31.7 (*c*, 1.0 in $CHCl_3$)

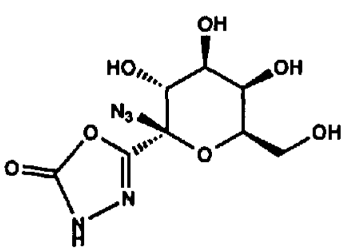
2-(1-Azido-2,6-di-*O*-*tert*-butyldimethylsilyl-3,4-*O*-isopropylidene-α-**D**-*galacto*pyranosyl)-4,5-dihydro-1,3,4-oxadiazol-5-one

$C_{22}H_{45}N_5O_6Si_2$

Source of chirality: **D**-galactose as starting material

T. W. Brandstetter, M. R. Wormald, R. A. Dwek, T. D. Butters, F. M. Platt, K. E. Tsitsanou, S. E. Zographos, N. G. Oikonomakos and G. W. J. Fleet

Tetrahedron: Asymmetry **1996,** *7,* 157



E.e. = 100%

$[\alpha]_D^{26}$ = +98.2 (*c*, 1.0 in MeOH)

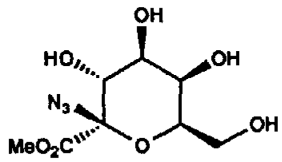
2-(1-Azido-α-**D**-*galacto*pyranosyl)-4,5-dihydro-1,3,4-oxadiazol-5-one

$C_8H_{11}N_5O_7$

Source of chirality: **D**-galactose as starting material

T. W. Brandstetter, M. R. Wormald, R. A. Dwek, T. D. Butters, F. M. Platt, K. E. Tsitsanou, S. E. Zographos, N. G. Oikonomakos and G. W. J. Fleet

Tetrahedron: Asymmetry **1996,** *7,* 157



E.e. = 100%

$[\alpha]_D^{24}$ = +75.7 (*c*, 1.0 in MeOH)

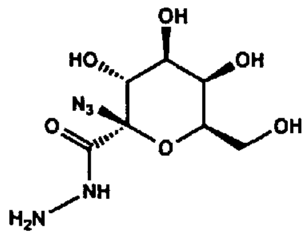
methyl 2-azido-2-deoxy-β-**D**-*galacto*-2-heptulopyranosonate

$C_8H_{13}N_3O_7$

Source of chirality: **D**-galactose as starting material

T. W. Brandstetter, M. R. Wormald, R. A. Dwek, T. D. Butters, F. M. Platt, K. E. Tsitsanou, S. E. Zographos, N. G. Oikonomakos and G. W. J. Fleet

Tetrahedron: Asymmetry **1996,** *7,* 157



E.e. = 100%

$[\alpha]_D^{24}$ = +70.0 (*c*, 1.0 in MeOH)

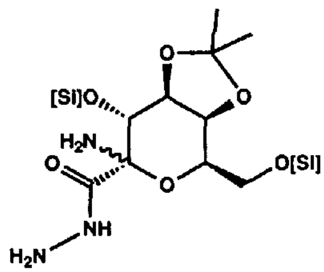
2-azido-2-deoxy-β-**D**-*galacto*-2-heptulopyranosonic hydrazide

$C_7H_{13}N_5O_6$

Source of chirality: **D**-galactose as starting material

T. W. Brandstetter, M. R. Wormald, R. A. Dwek, T. D. Butters, F. M. Platt, K. E. Tsitsanou, S. E. Zographos, N. G. Oikonomakos and G. W. J. Fleet

Tetrahedron: Asymmetry **1996,** *7,* 157



E.e. = 100%

$[\alpha]_D^{22}$ = -45.6 (*c*, 1.0 in $CHCl_3$)

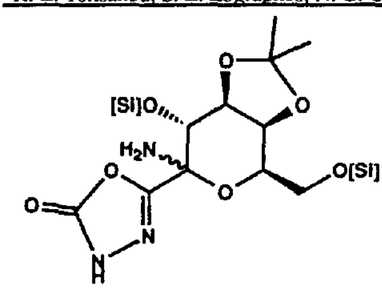
2-amino-3,7-di-*O*-*tert*-butyldimethylsilyl-2-deoxy-4,5-*O*-isopropylidene-**D**-*galacto*-2-heptulopyranosonic hydrazide

$C_{22}H_{47}N_3O_6Si_2$

Source of chirality: **D**-galactose as starting material

T. W. Brandstetter, M. R. Wormald, R. A. Dwek, T. D. Butters, F. M. Platt, K. E. Tsitsanou, S. E. Zographos, N. G. Oikonomakos and G. W. J. Fleet

Tetrahedron: Asymmetry **1996,** *7,* 157



E.e. = 100%

$[\alpha]_D^{22}$ = +31.5 (*c*, 1.0 in $CHCl_3$)

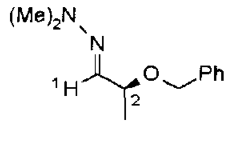
2-(1-Amino-2,6-di-*O*-*tert*-butyldimethylsilyl-3,4-*O*-isopropylidene-α-**D**-*galacto*pyranosyl)-4,5-dihydro-1,3,4-oxadiazol-5-one

$C_{23}H_{45}N_3O_7Si_2$

Source of chirality: **D**-galactose as starting material

Arlette Solladié-Cavallo and Frédérique Bonne

Tetrahedron: Asymmetry **1996,** *7,* 171



From S-Ethyl lactate

E-configuration from nOe diff. experiment

J(H1-H2) = 7 Hz

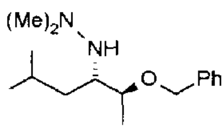
$[\alpha]_D^{25}$ = -89 (c = 2.17, CCl_4)

$C_{12}H_{18}N_2O$

_S_-2-Benzyloxy-propionaldehyde-N,N-dimethylhydrazone

Arlette Solladié-Cavallo and Frédérique Bonne

Tetrahedron: Asymmetry **1996,** *7,* 171



From S-Ethyl lactate and NOESY of the corresponding oxazolidone

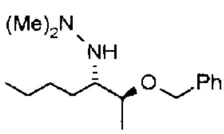
$[\alpha]_D^{25}$ = -51 (c = 2.17, $CHCl_3$)

$C_{16}H_{28}N_2O$

1*S*,2*S*-N',N'-dimethyl-N-[1-isobutyl-2-benzyloxy] propylhydrazine

Arlette Solladié-Cavallo and Frédérique Bonne

Tetrahedron: Asymmetry **1996,** *7,* 171



From S-Ethyl lactate and NOESY of the corresponding oxazolidone

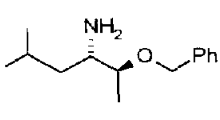
$[\alpha]_D^{25}$ = +5 (c = 2.1, $CHCl_3$)

$C_{16}H_{28}N_2O$

1*S*,2*S*-N',N'-dimethyl-N-[1-butyl-2-benzyloxy] propylhydrazine

Arlette Solladié-Cavallo and Frédérique Bonne

Tetrahedron: Asymmetry **1996,** *7,* 171



From S-Ethyl lactate and NOESY of the corresponding oxazolidone

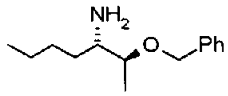
$[\alpha]_D^{25}$ = +17 (c = 2.16, $CHCl_3$)

$C_{14}H_{23}NO$

1*S*,2*S*-1-isobutyl-2-benzyloxy-propylamine

Arlette Solladié-Cavallo and Frédérique Bonne

Tetrahedron: Asymmetry **1996,** *7,* 171



$C_{14}H_{23}NO$

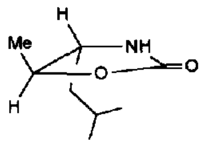
1*S*,2*S*-1-butyl-2-benzyloxy propylamine

From S-Ethyl lactate and NOESY of the corresponding oxazolidone

$[\alpha]_D^{25}$ = +26 (c = 2.08, $CHCl_3$)

Arlette Solladié-Cavallo and Frédérique Bonne

Tetrahedron: Asymmetry **1996,** *7,* 171



$C_8H_{15}NO_2$

4*S*,5*S*-4-isobutyl-5-methyl-oxazolidin-2-one

From S-Ethyl lactate

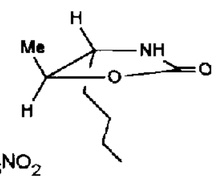
Trans from NOESY

J(H4-H5) = 6 Hz

$[\alpha]_D^{25}$ = -30 (c =1.34, $CHCl_3$)

Arlette Solladié-Cavallo and Frédérique Bonne

Tetrahedron: Asymmetry **1996,** *7,* 171



$C_8H_{15}NO_2$

4*S*,5*S*-4-butyl-5-methyl-oxazolidin-2-one

From S-Ethyl lactate

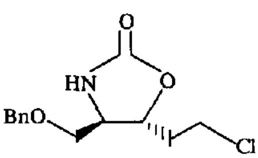
Trans from NOESY

J(H4-H5) = 6 Hz

$[\alpha]_D^{25}$ = -28 (c =1.52, $CHCl_3$)

N. Dell'Uomo, M.C. Di Giovanni, D. Misiti, G. Zappia
G. Delle Monache

Tetrahedron: Asymmetry **1996,** *7,* 181



$C_{13}H_{16}ClNO_3$

(4R,5R)-4-(Benzyloxy)methyl-5-(2-chloroethyl)-oxazolidin-2-one

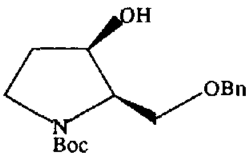
$[\alpha]_D^{25}$ + 67.5 (c 0.25 $CHCl_3$)

Source of chirality : L - serine

Absolute configuration : 4R,5R

N. Dell'Uomo, M.C. Di Giovanni, D. Misiti, G. Zappia
G. Delle Monache

Tetrahedron: Asymmetry **1996,** *7,* 181



$[\alpha]_D^{25}$ - 20.0 (c 1.88 MeOH)

Source of chirality : L - serine

Absolute configuration : 2R,3R

$C_{17}H_{25}NO_4$

(2R,3R)-1-(tert-Butoxycarbonyl)-2-(benzyloxymethyl)-3-hydroxy-pyrrolidine

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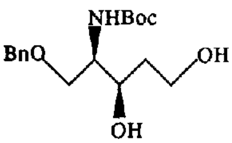
N. Dell'Uomo, M.C. Di Giovanni, D. Misiti, G. Zappia
G. Delle Monache

Tetrahedron: Asymmetry **1996,** *7,* 181



$[\alpha]_D^{25}$ + 27.8 (c 0.13 MeOH)

Source of chirality : L - serine

Absolute configuration : 2R,3R

$C_{17}H_{25}NO_5$

(2R,3R)-1-Benzyloxy-2-(tert-butoxycarbonyl)amino-3,5-pentandiol

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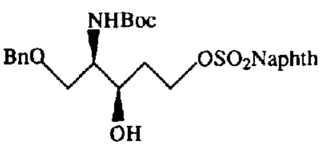
N. Dell'Uomo, M.C. Di Giovanni, D. Misiti, G. Zappia
G. Delle Monache

Tetrahedron: Asymmetry **1996,** *7,* 181



$[\alpha]_D^{25}$ + 14.4 (c 0.16 MeOH)

Source of chirality : L - serine

Absolute configuration : 2R,3R

$C_{17}H_{25}NO_5$

(2R,3R)-1-Benzyloxy-2-(tert-butoxycarbonyl)amino-5-((β-naphthyl)sulphonyloxy)-3-pentanol

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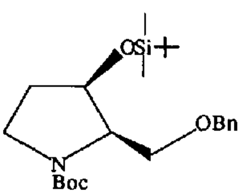
N. Dell'Uomo, M.C.Di Giovanni, D. Misiti, G. Zappia
G. Delle Monache

Tetrahedron: Asymmetry **1996,** *7,* 181



$[\alpha]_D^{25}$ - 20.0 (c 0.28 $CHCl_3$)

Source of chirality : L - serine

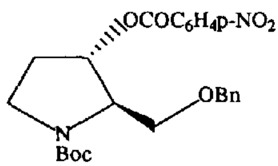
Absolute configuration : 2R,3R

$C_{23}H_{39}SiNO_4$

(2R,3R)-1-(tert-Butoxycarbonyl)-2-(benzyloxymethyl)-3-(tert-butyldimethylsilyloxy)-pyrrolidine

N. Dell'Uomo, M.C.Di Giovanni, D. Misiti, G. Zappia
G. Delle Monache

Tetrahedron: Asymmetry **1996**, *7*, 181



$[\alpha]_D^{25}$ + 13.52 (c 0.15 $CHCl_3$)

Source of chirality : L - serine

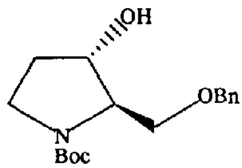
Absolute configuration : 2R,3S

$C_{24}H_{28}N_2O_4$

(2R,3S)-1-(tert-Butoxycarbonyl)-2-(benzyloxymethyl)-3-(4-nitrobenzoyloxy)-pyrrolidine

N. Dell'Uomo, M.C.Di Giovanni, D. Misiti, G. Zappia
G. Delle Monache

Tetrahedron: Asymmetry **1996**, *7*, 181



$[\alpha]_D^{25}$ - 33.4 (c 0.18 MeOH)

Source of chirality : L - serine

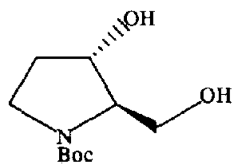
Absolute configuration : 2R,3S

$C_{17}H_{25}NO_4$

(2R,3S)-1-(tert-Butoxycarbonyl)-2-(benzyloxymethyl)-3-hydroxy-pyrrolidine

Tetrahedron: Asymmetry **1996**, *7*, 181

N. Dell'Uomo, M.C.Di Giovanni, D. Misiti, G. Zappia
G. Delle Monache



$[\alpha]_D^{25}$ - 21.5 (c 0.66 MeOH)

Source of chirality : L - serine

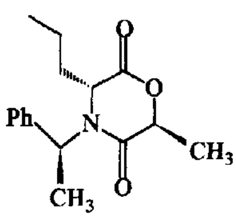
Absolute configuration : 2R,3S

$C_{10}H_{19}NO_4$

(2R,3S)-1-(tert-Butoxycarbonyl)-2-hydroxymethyl-3-hydroxy-pyrrolidine

Gianni PORZI and Sergio SANDRI

Tetrahedron: Asymmetry **1996**, *7*, 189

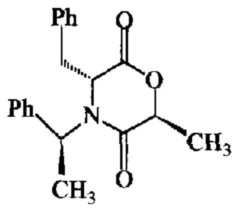


$[\alpha]_D^{25}$= -254.7 (c=0.55,chloroform)
Source of chirality : from (S)-phenethylamine
Absolute configuration : 3R,6S assigned by ^{1}H-NMR
$C_{16}H_{21}NO_3$

(3R,6S)-4-N-((S)-1-phenethyl)-3-propyl-6-methyl-1,4-morpholin-2,5-dione

Gianni PORZI and Sergio SANDRI

Tetrahedron: Asymmetry **1996,** *7,* 189

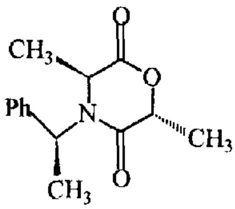


$[\alpha]_D^{25}$ = -19.6 (c=2.13,chloroform)
Source of chirality : from (S)-phenethylamine
Absolute configuration : 3R,6S assigned by [1]H-NMR
$C_{20}H_{21}NO_3$

(3R,6S)-4-N-((S)-1-phenethyl)-3-benzyl-6-methyl-1,4-morpholin-2,5-dione

Gianni PORZI and Sergio SANDRI

Tetrahedron: Asymmetry **1996,** *7,* 189

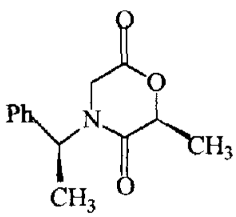


$[\alpha]_D^{25}$= 42.2 (c=0.64,chloroform)
Source of chirality : from (S)-phenethylamine
Absolute configuration : 3S,6R assigned by [1]H-NMR
$C_{14}H_{17}NO_3$

(3S,6R)-4-N-((S)-1-phenethyl)-3,6-dimethyl-1,4-morpholin-2,5-dione

Gianni PORZI and Sergio SANDRI

Tetrahedron: Asymmetry **1996,** *7,* 189

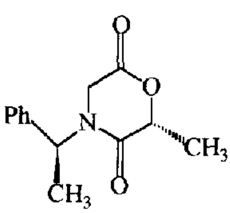


mp 118-9°C
$[\alpha]_D^{25}$= -199.4 (c=2.05,chloroform)
Source of chirality : from (S)-phenethylamine
Absolute configuration : 6S assigned by [1]H-NMR
$C_{13}H_{15}NO_3$

(6S)-4N-((S)-1-phenethyl)-6-methyl-1,4-morpholin-2,5-dione

Gianni PORZI and Sergio SANDRI

Tetrahedron: Asymmetry **1996,** *7,* 189

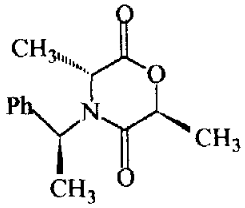


mp 98-9°C
$[\alpha]_D^{25}$= -106.8 (c=2.25,chloroform)
Source of chirality : from (S)-phenethylamine
Absolute configuration : 6S assigned by [1]H-NMR
$C_{13}H_{15}NO_3$

(6R)-4N-((S)-1-phenethyl)-6-methyl-1,4-morpholin-2,5-dione

Gianni PORZI and Sergio SANDRI

Tetrahedron: Asymmetry **1996,** *7,* 189

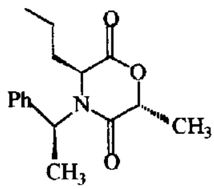


$[\alpha]^{25}_{D}$= -290.7 (c=1.08,chloroform)
Source of chirality : from (S)-phenethylamine
Absolute configuration : 3R,6S assigned by ^{1}H-NMR
$C_{14}H_{17}NO_3$

(3R,6S)-4-N-((S)-1-phenethyl)-3,6-dimethyl-1,4-morpholin-2,5-dione

Gianni PORZI and Sergio SANDRI

Tetrahedron: Asymmetry **1996,** *7,* 189

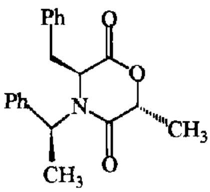


$[\alpha]^{25}_{D}$ = 49.4 (c=0.84,chloroform)
Source of chirality : from (S)-phenethylamine
Absolute configuration : 3S,6R assigned by ^{1}H-NMR
$C_{16}H_{21}NO_3$

(3S,6R)-4-N-((S)-1-phenethyl)-3-propyl-6-methyl-1,4-morpholin-2,5-dione

Gianni PORZI and Sergio SANDRI

Tetrahedron: Asymmetry **1996,** *7,* 189

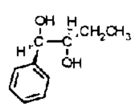


$[\alpha]^{25}_{D}$= 54.1 (c=2.27,chloroform)
Source of chirality : from (S)-phenethylamine
Absolute configuration : 3S,6R assigned by ^{1}H-NMR
$C_{20}H_{21}NO_3$

(3S,6R)-4-N-((S)-1-phenethyl)-3-benzyl-6-methyl-1,4-morpholin-2,5-dione

G. Bellucci, C. Chiappe, A. Cordoni

Tetrahedron: Asymmetry **1996,** *7,* 197



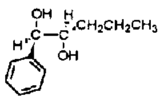
E.e. > 90% (by HPLC on bis(MTPA) derivative)
$[\alpha]_D$= - 28.5 (c = 0.01, $CHCl_3$)

Source of chirality: enzymatic resolution
Absolute Configuration : 1R,2R (assigned by comparison of $[\alpha]_D$ with the literature value.)

$C_{10}H_{14}O_2$
threo-1-Phenyl-1,2-butanediol

G. Bellucci, C. Chiappe, A. Cordoni

Tetrahedron: Asymmetry **1996,** *7,* 197



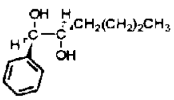
$C_{11}H_{16}O_2$
threo-1-Phenyl-1,2-pentanediol

E.e. > 90% (by HPLC on bis(MTPA) derivative)
$[\alpha]_D$= - 23.5 (c = 0.01, $CHCl_3$)

Source of chirality: enzymatic resolution
Absolute Configuration : 1R,2R (assigned by CD correlation)

G. Bellucci, C. Chiappe, A. Cordoni

Tetrahedron: Asymmetry **1996,** *7,* 197



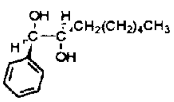
$C_{12}H_{18}O_2$
threo-1-Phenyl-1,2-hexanediol

E.e. > 90% (by HPLC on bis(MTPA) derivative)
$[\alpha]_D$= - 21.5 (c = 0.01, $CHCl_3$)

Source of chirality: enzymatic resolution
Absolute Configuration : 1R,2R (assigned by CD correlation)

G. Bellucci, C. Chiappe, A. Cordoni

Tetrahedron: Asymmetry **1996,** *7,* 197



$C_{14}H_{22}O_2$
threo-1-Phenyl-1,2-octanediol

E.e. > 90% (by HPLC on bis(MTPA) derivative)
$[\alpha]_D$= - 14.7 (c = 0.01, $CHCl_3$)

Source of chirality: enzymatic resolution
Absolute Configuration : 1R,2R (assigned by CD correlation)

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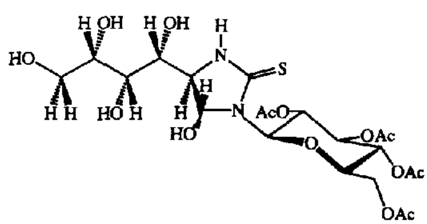
Tetrahedron: Asymmetry **1996,** *7,* 203

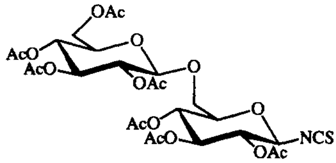


E. e = 100%
$[\alpha]_D^{22}$ = +60 (*c* 1.0, dichloromethane)
Source of chirality: D-glucosamine and 2,3,4,6-tetra-*O*-acetyl-β-D-glucopyranosyl isothiocyanate as starting materials.

(4*R*, 5*R*)-5-Hydroxy-1-(2',3',4',6'-tetra-*O*-acetyl-β-D-glucopyranosyl)-4-(D-*arabino*tetritol-1-yl)-imidazolidine-2-thione

José Fuentes, José L. Molina, David Olano, and M. Angeles Pradera

Tetrahedron: Asymmetry **1996,** *7,* 203



E. e = 100%

$[\alpha]_D^{24}$ = +3 (*c* 1.0, dichloromethane)

Source of chirality: **D**-glucose as starting materials.

2,3,4-Tri-*O*-acetyl-6-*O*-(2',3',4',6'-tetra-*O*-acetyl-β-**D**-glucopyranosyl)-β-**D**-glucopyranosyl isothiocyanate

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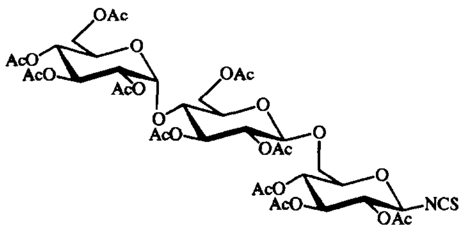
Tetrahedron: Asymmetry **1996,** *7,* 203



E. e = 100%

$[\alpha]_D^{25}$ = +62 (*c* 0.17, dichloromethane)

Source of chirality: **D**-glucose and maltose as starting materials.

2,3,4-Tri-*O*-acetyl-6-*O*-[2',3',6'-tri-*O*-acetyl-4'-*O*-(2",3",4",6"-tetra-*O*-acetyl-α-**D**-glucopyranosyl)-β-**D**-glucopyranosyl]-
-β-**D**-glucopyranosyl isothiocyanate

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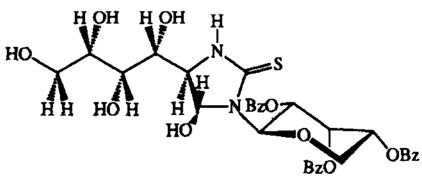
Tetrahedron: Asymmetry **1996,** *7,* 203



E. e = 100%

$[\alpha]_D^{22}$ = +6 (*c* 1.0, dichloromethane)

Source of chirality: **D**-glucosamine and 2,3,4-tri-*O*-benzoyl-β-**D**-ribopyranosyl isothiocyanate as starting materials.

(4*R*, 5*R*)-5-Hydroxy-4-(**D**-*arabino*tetritol-1-yl)-1-(2',3',4"-tri-*O*-benzoyl-β-**D**-ribopyranosyl) imidazolidine-2-thione

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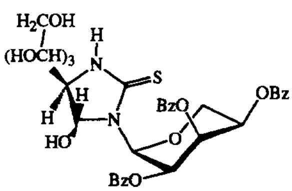
Tetrahedron: Asymmetry **1996,** *7,* 203



E. e = 100%

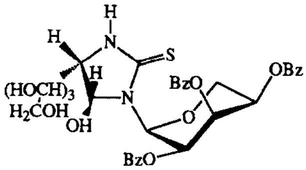
$[\alpha]_D^{24}$ = -49 (*c* 0.55, dichloromethane)

Source of chirality: **D**-glucosamine and 2,3,4-tri-*O*-benzoyl-α-**D**-ribopyranosyl isothiocyanate as starting materials.

(4*R*, 5*R*)-5-Hydroxy-4-(**D**-*arabino*tetritol-1-yl)-1-(2',3',4"-tri-*O*-benzoyl-α-**D**-ribopyranosyl) imidazolidine-2-thione

José Fuentes, José L. Molina, David Olano, and M. Angeles Pradera

Tetrahedron: Asymmetry **1996**, *7*, 203



E. e = 100%

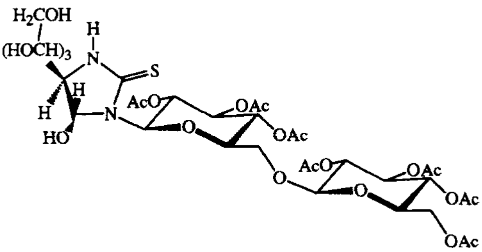
$[\alpha]_D^{24}$ = -54 (*c* 0.7, dichloromethane)

Source of chirality: D-glucosamine and 2,3,4-tri-*O*-benzoyl-α-D-ribopyranosyl isothiocyanate as starting materials.

(4*R*, 5*S*)-5-Hydroxy-4-(D-*arabino*tetritol-1-yl)-1-(2',3',4''-tri-*O*-benzoyl-α-D-ribopyranosyl) imidazolidine-2-thione

José Fuentes, José L. Molina, David Olano, and M. Angeles Pradera

Tetrahedron: Asymmetry **1996**, *7*, 203



E. e = 100%

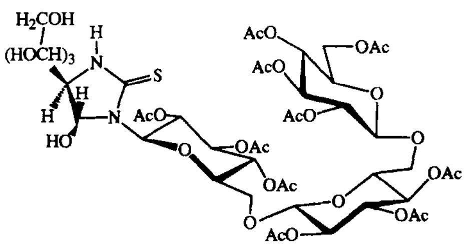
$[\alpha]_D^{26}$ +19 (*c* 1.0, dichloromethane)

Source of chirality: D-glucosamine and 2,3,4-tri--*O*-acetyl-6-*O*-(2',3',4',6'-tetra-*O*-acetyl-β-D-glucopyranosyl)--β-D-glucopyranosyl isothiocyanate as starting materials.

(4*R*, 5*R*)-5-Hydroxy-1-[2',3',4'-tri-*O*-acetyl-6-*O*-(2''',3''',4''',6'''-tetra-*O*-acetyl-β-D-glucopyranosyl)-β-D-glucopyranosyl]--4-(D-*arabino*tetritol-1-yl) imidazolidine-2-thione

José Fuentes, José L. Molina, David Olano, and M. Angeles Pradera

Tetrahedron: Asymmetry **1996**, *7*, 203



E. e = 100%

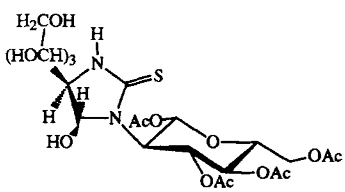
$[\alpha]_D^{25}$ +158 (*c* 0.24, dichloromethane)

Source of chirality: D-glucosamine and 2,3,4-tri-*O*-acetyl- -6-*O*--[2',3',6'-tri-*O*-acetyl-4'-*O*-(2'',3'',4'',6''-tetra-*O*-acetyl-α-D-glucopyranosyl)-β-D-glucopyranosyl]-β-D-glucopyranosyl isothiocyanate as starting materials.

(4*R*, 5*R*)-5-Hydroxy-1-[2',3',4'-tri-*O*-acetyl-6-*O*-(2''',3''',4''',6'''-tetra-*O*-acetyl-β-D-glucopyranosyl)-β-D-glucopyranosyl]--4-(D-*arabino*tetritol-1-yl) imidazolidine-2-thione

José Fuentes, José L. Molina, David Olano, and M. Angeles Pradera

Tetrahedron: Asymmetry **1996**, *7*, 203



D. e = 66%

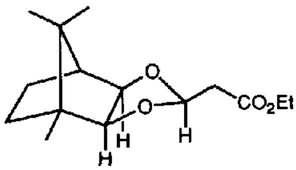
$[\alpha]_D^{25}$ = +35 (*c* 1.2, dichloromethane)

Source of chirality: D-glucosamine and 1,3,4,6-tetra-*O*-acetyl-2-deoxy-2-isothiocyanato-β-D-glucopyranose as starting materials.

(4*R*, 5*R and* 5*S*)-5-Hydroxy-1-(1',3',4',6'-tetra-*O*-acetyl-2-deoxy-β-D-glucopyranos-2-yl)-4-(D-*arabino*tetritol-1-yl) imidazolidine-2-thione

Tetrahedron: Asymmetry **1996**, *7*, 219

Mercedes Caballero, María García-Valverde, Rafael Pedrosa and Martina Vicente



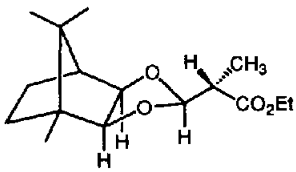
$C_{15}H_{24}O_4$

B.p. 173°C/ 0.9 mmHg
D.e. >96% (by ^{1}H-NMR)
$[\alpha]_D^{23}$= -13.3 (c = 1, $CHCl_3$)
Source of chirality: (-)-(1R,2S,3S,4S)-1,7,7-trimethyl-bicyclo[2.2.1]heptane-2,3-diol
Absolute configuration: 1R, 2S, 4R, 6S, 7S

(1R, 2S, 4R, 6S, 7S)-4-(1'-Ethoxycarbonylmethylen)-1,10,10-trimethyl-3,5-dioxa-tricyclo[3.2.1.$0^{2,6}$]decane

Tetrahedron: Asymmetry **1996**, *7*, 219

Mercedes Caballero, María García-Valverde, Rafael Pedrosa and Martina Vicente



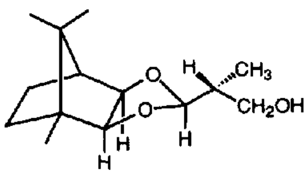
$C_{16}H_{26}O_4$

B.p. 183°C/ 0.9 mmHg
D.e. 31% (by G.C. and ^{1}H-NMR)
$[\alpha]_D^{23}$= -0.4 (c = 5.8, $CHCl_3$)
Source of chirality: Asymmetric synthesis
Absolute configuration: 1R,1'S, 2S, 4R, 6S, 7S

(1R, 1'S, 2S, 4R, 6S, 7S)-4-(1'-Ethoxycarbonylethyl)-1,10,10-trimethyl-3,5-dioxa-tricyclo[3.2.1.$0^{2,6}$]decane

Tetrahedron: Asymmetry **1996**, *7*, 219

Mercedes Caballero, María García-Valverde, Rafael Pedrosa and Martina Vicente



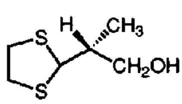
$C_{14}H_{24}O_3$

B.p. 173°C/ 0.9 mmHg
D.e. 31 %
$[\alpha]_D^{23}$= -13.3 (c = 1, $CHCl_3$)
Source of chirality: Asymmetric synthesis
Absolute configuration: 1R, 1'R, 2S, 4R, 6S, 7S

(1R, 1'R, 2S, 4R, 6S, 7S)-4-(2'-Hydroxy-1'-methylethylen)-1,10,10-trimethyl-3,5-dioxa-tricyclo[3.2.1.$0^{2,6}$]decane

Tetrahedron: Asymmetry **1996**, *7*, 219

Mercedes Caballero, María García-Valverde, Rafael Pedrosa and Martina Vicente



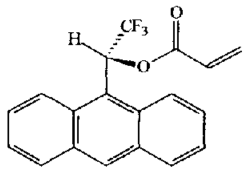
$C_6H_{12}OS_2$

E.e. 31%
$[\alpha]_D^{23}$= -5.2 (c = 1, EtOH)
Source of chirality: Asymmetric synthesis
Absolute configuration: 1'R

(1'R)-2-(2'-Hydroxy-1'-methylethylen)-1,3-ditiolane

Anne Carrière, Albert Virgili

Tetrahedron: Asymmetry **1996**, 7, 227

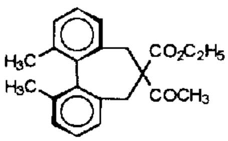


$[\alpha]^{25}_{D}$ = +18.7 (c = 0.75, $CHCl_3$).
Source of chirality :(R)-(-)-2,2,2-trifluoro-1-(9-anthryl)ethanol
Absolute configuration : *11R*

$C_{19}H_{13}F_3O_2$
[1-(9-anthryl)-2,2,2-trifluoroethoxy]acrylate

L. Ridvan, N. Abdallah, R. Holakovský, M. Tichý and J. Závada

Tetrahedron: Asymmetry **1996**, 7, 231



$C_{22}H_{24}O_3$

(R)-6-Acetyl-1,11-dimethyl-6-ethoxycarbonyl-6,7-dihydro-5H-dibenzo[a,c]cycloheptene

M.p. 79-81oC (hexane)

E.e.~100%

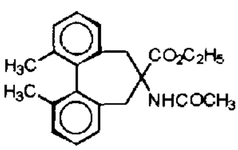
$[\alpha]_D{}^{20}$= +87.6 (c 0.5, acetone)

Source of chirality: (R)-2,2'-bis(bromomethyl)-6,6'-dimethylbiphenyl

Absolute configuration: R
(assigned by synthesis from known compound)

L. Ridvan, N. Abdallah, R. Holakovský, M. Tichý and J. Závada

Tetrahedron: Asymmetry **1996**, 7, 231



$C_{22}H_{25}NO_3$

(R)-6-Acetylamino-1,11-dimethyl-6-ethoxycarbonyl-6,7-dihydro-5H-dibenzo[a,c]cycloheptene

M.p. 194-196oC (toluene)

E.e.~100%

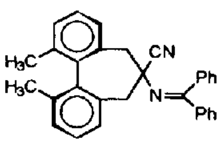
$[\alpha]_D{}^{20}$= +165.4 (c 0.5, acetone)

Source of chirality: (R)-2,2'-bis(bromomethyl)-6,6'-dimethylbiphenyl

Absolute configuration: R
(assigned by synthesis from known compound)

L. Ridvan, N. Abdallah, R. Holakovský, M. Tichý and J. Závada

Tetrahedron: Asymmetry **1996**, 7, 231



$C_{31}H_{26}N_2$

(R)-6-(N-Diphenylmethylene)amino-6-cyano-1,11-dimethyl-6,7-dihydro-5H-dibenzo[a,c]cycloheptene

M.p. 161-164oC (EtOH)

E.e.~100%

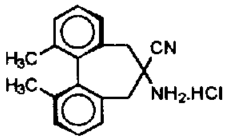
$[\alpha]_D{}^{20}$= +101.7 (c 0.5, CHCl3)

Source of chirality: (R)-2,2'-bis(bromomethyl)-6,6'-dimethylbiphenyl

Absolute configuration: R
(assigned by synthesis from known compound)

L. Ridvan, N. Abdallah, R. Holakovský, M. Tichý and J. Závada

Tetrahedron: Asymmetry **1996**, *7*, 231



$C_{18}H_{19}ClN_2$

(R)-6-Amino-6-cyano-1,11-dimethyl-6,7-dihydro-5H-dibenzo[a,c]cycloheptene hydrochloride

M.p. 173-175°C (aq.EtOH)

E.e.~100%

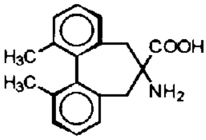
$[\alpha]_D^{20}$= +41.4 (c 0.5, $CHCl_3$)

Source of chirality: (R)-2,2'-bis(bromomethyl)-6,6'-dimethylbiphenyl

Absolute configuration: R
(assigned by synthesis from known compound)

L. Ridvan, N. Abdallah, R. Holakovský, M. Tichý and J. Závada

Tetrahedron: Asymmetry **1996**, *7*, 231



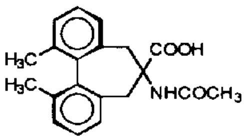
$C_{18}H_{19}NO_2$

(R)-6-Amino-1,11-dimethyl-6,7-dihydro-5H-dibenzo[a,c]cycloheptene-6-carboxylic acid

M.p. 225-227°C /dec./ (aq.EtOH)
E.e.~100%
$[\alpha]_D^{20}$= -23.3, $[\alpha]_{578}$= -23.7, $[\alpha]_{546}$= -22.9, $[\alpha]_{436}$= +8.1, $[\alpha]_{365}$= +147.0 (c 0.5, MeOH)
CD: $\Delta\varepsilon_{195}$ -85.3, $\Delta\varepsilon_{205}$ -57.2, $\Delta\varepsilon_{221}$ +23.5, $\Delta\varepsilon_{243}$ +25.5, $\Delta\varepsilon_{271}$ -2.2 (c 0.004, MeOH).
Source of chirality: (R)-2,2'-bis(bromomethyl)-6,6'-dimethylbiphenyl
Absolute configuration: R
(assigned by synthesis from known compound)

L. Ridvan, N. Abdallah, R. Holakovský, M. Tichý and J. Závada

Tetrahedron: Asymmetry **1996**, *7*, 231



$C_{20}H_{21}NO_3$

(R)-6-N-Acetylamino-1,11-dimethyl-6,7-dihydro-5H-dibenzo[a,c]cycloheptene-6-carboxylic acid

M.p. 241-243°C

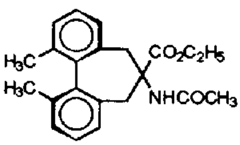
E.e.~100%

Source of chirality: (R)-2,2'-bis(bromomethyl)-6,6'-dimethylbiphenyl

Absolute configuration: R
(assigned by synthesis from known compound)

L. Ridvan, N. Abdallah, R. Holakovský, M. Tichý and J. Závada

Tetrahedron: Asymmetry **1996**, *7*, 231



$C_{22}H_{24}O_3$

(R)-6-Acetylamino-1,11-dimethyl-6-ethoxycarbonyl-6,7-dihydro-5H-dibenzo[a,c]cycloheptene

M.p. 194-196°C (toluene)

E.e.~100% (by HPLC)

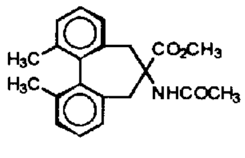
$[\alpha]_D^{20}$= +165.4 (c 0.5, acetone)

Source of chirality: (R)-2,2'-bis(bromomethyl)-6,6'-dimethylbiphenyl

Absolute configuration: R
(assigned by synthesis from known compound)

L. Ridvan, N. Abdallah, R. Holakovský, M. Tichý and J. Závada

Tetrahedron: Asymmetry **1996,** *7,* 231



$C_{22}H_{25}NO_3$

(R)-6-Acetylamino-1,11-dimethyl-6-methoxycarbonyl-6,7-dihydro-5H-dibenzo[a,c]cycloheptene

M.p. 202-204°C

E.e.~100% (by HPLC)

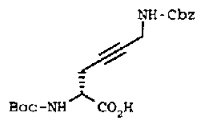
$[\alpha]_D^{20}$= +168.7 (c 0.5, acetone)

Source of chirality: (R)-2,2'-bis(bromomethyl)-6,6'-dimethylbiphenyl

Absolute configuration: R (assigned by synthesis from known compound)

Dirk Heerding, Pradip Bhatnagar, Michael Hartmann, Peter Kremminger and Stephen LoCastro

Tetrahedron: Asymmetry **1996,** *7,* 237



$C_{19}H_{24}N_2O_6$

(2*R*)-6-Benzyloxycarbonylamino-2-*tert*-butoxycarbonyl-aminohex-4-ynoic acid

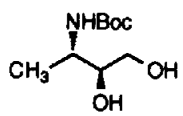
E.e >97% [by reverse phase HPLC of the 2,3,4,6-tetra-O-acetyl-β-D-glucopyranosyl thiourea derivative after hydrolysis of the protecting groups]

$[\alpha]_D^{25}$ = -15.0 (c 0.3, MeOH)

Source of chirality: induction from natural asymmetric center.

M. Pastó, A. Moyano, M.A. Pericàs, A. Riera

Tetrahedron: Asymmetry **1996,** *7,* 243



$C_9H_{19}NO_4$

(2*S*, 3*S*)-3-*tert*-butoxycarbonylamino-1,2-butanediol

E. e.=90% [by Mosher diester of a precursor]

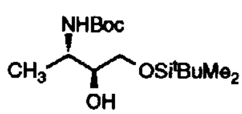
$[\alpha]_D^{20}$=-5.8 (c=1, $CHCl_3$)

Source of chirality: Sharpless asym. epoxidation

Absolute configuration: 2*S*, 3*S*

M. Pastó, A. Moyano, M.A. Pericàs, A. Riera

Tetrahedron: Asymmetry **1996,** *7,* 243



$C_{15}H_{33}NO_4Si$

(2*S*, 3*S*)-1-*tert*-butyldimethylsilyloxy-3-*tert*-butoxycarbonylamino-2-butanol

E. e.=90% [by Mosher diester of a precursor]

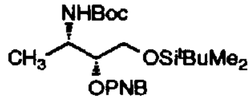
$[\alpha]_D^{20}$=1.2 (c=3.0, $CHCl_3$)

Source of chirality: Sharpless asym. epoxidation

Absolute configuration: 2*S*, 3*S*

M. Pastó, A. Moyano, M.A. Pericàs, A. Riera

Tetrahedron: Asymmetry **1996**, *7*, 243



$C_{22}H_{36}N_2O_7Si$

E. e.=90% [by Mosher diester of a precursor]
$[\alpha]_D^{20}$=0.84 (c=1.7, $CHCl_3$)

Source of chirality: Sharpless asym. epoxidation
Absolute configuration: 2*R*, 3*S*

(2*R*, 3*S*)-1-*tert*-butyldimethylsilyloxy-3-*tert*-butoxycarbonylamino-2-*p*-nitrophenylcarbonyloxybutane

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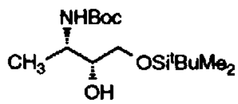
M. Pastó, A. Moyano, M.A. Pericàs, A. Riera

Tetrahedron: Asymmetry **1996**, *7*, 243



$C_{15}H_{33}NO_4Si$

E. e.=90% [by Mosher diester of a precursor]
$[\alpha]_D^{20}$=-9.6 (c=1.5, $CHCl_3$)

Source of chirality: Sharpless asym. epoxidation
Absolute configuration: 2*R*, 3*S*

(2*R*, 3*S*)-1-*tert*-butyldimethylsilyloxy-3-*tert*-butoxycarbonylamino-2-butanol

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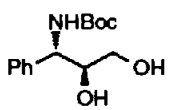
M. Pastó, A. Moyano, M.A. Pericàs, A. Riera

Tetrahedron: Asymmetry **1996**, *7*, 243



$C_{14}H_{21}NO_4$

E. e.=100% [by HPLC of a precursor]
$[\alpha]_D^{20}$=52.7 (c=1, $CHCl_3$)

Source of chirality: Sharpless asym. epoxidation
Absolute configuration: 2*S*, 3*S*

(2*S*, 3*S*)-3-*tert*-butoxycarbonylamino-3-phenyl-1,2-propanediol

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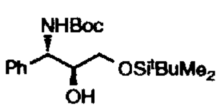
M. Pastó, A. Moyano, M.A. Pericàs, A. Riera

Tetrahedron: Asymmetry **1996**, *7*, 243



$C_{20}H_{35}NO_4Si$

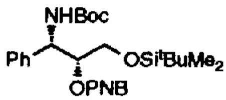
E. e.=100% [by HPLC of a precursor]
$[\alpha]_D^{20}$=25.9 (c=0.21, $CHCl_3$)

Source of chirality: Sharpless asym. epoxidation
Absolute configuration: 2*S*, 3*S*

(2*S*,3*S*)-1-*tert*-butyldimethylsilyloxy-3-*tert*-butoxycarbonylamino-3-phenyl-2-propanol

M. Pastó, A. Moyano, M.A. Pericàs, A. Riera

Tetrahedron: Asymmetry **1996**, *7*, 243



$C_{27}H_{38}N_2O_7Si$

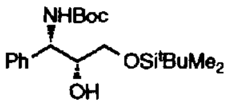
E. e.=100% [by HPLC of a precursor]
$[\alpha]_D^{20}$=37.4 (c=1.5, $CHCl_3$)

Source of chirality: Sharpless asym. epoxidation
Absolute configuration: 2*R*, 3*S*

(2*R*,3*S*)-1-*tert*-butyldimethylsilyloxy-3-*tert*-butoxycarbonylamino-2-*p*-nitrophenylcarbonyloxy-3-phenylpropane

M. Pastó, A. Moyano, M.A. Pericàs, A. Riera

Tetrahedron: Asymmetry **1996**, *7*, 243



$C_{20}H_{35}NO_4Si$

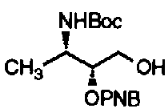
E. e.=100% [by HPLC of a precursor]
$[\alpha]_D^{20}$=2.65 (c=1.1, $CHCl_3$)

Source of chirality: Sharpless asym. epoxidation
Absolute configuration: 2*R*, 3*S*

(2*R*,3*S*)-1-*tert*-butyldimethylsilyloxy-3-*tert*-butoxycarbonylamino-3-phenyl-2-propanol

M. Pastó, A. Moyano, M.A. Pericàs, A. Riera

Tetrahedron: Asymmetry **1996**, *7*, 243



$C_{16}H_{22}N_2O_7$

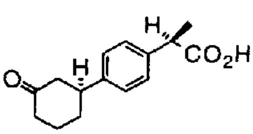
E. e.=90% [by Mosher diester of a precursor]
$[\alpha]_D^{20}$=-12.4 (c=1.1, $CHCl_3$)

Source of chirality: Sharpless asym. epoxidation
Absolute configuration: 2*R*, 3*S*

(2*R*,3*S*)-3-*tert*-butoxycarbonylamino-2-*p*-nitrophenylcarbonyloxy-1-butanol

D. P. G. Hamon, P. J. Hayball, R. A. Massy-Westropp, J. L. Newton and J. G. Tamblyn.

Tetrahedron: Asymmetry **1996**, *7*, 263



$C_{15}H_{18}O_3$
2-(4'-[3"-Oxocyclohexyl]phenyl) propanoic acid.

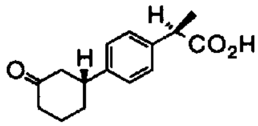
$[\alpha]_D^{20}$= -53 (c=1.75, EtOH)

Source of chirality: asymmetric synthesis

Absolute configuration 2*R*, 1"*S*

D. P. G. Hamon, P. J. Hayball, R. A. Massy-Westropp, J. L. Newton and J. G. Tamblyn.

Tetrahedron: Asymmetry **1996,** *7,* 263



$C_{15}H_{18}O_3$

2-(4'-[3''-Oxocyclohexyl]phenyl) propanoic acid.

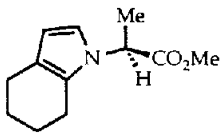
$[\alpha]_D^{20}$= -48 (c=0.51, EtOH)

Source of chirality: asymmetric synthesis

Absolute configuration 2*R*, 1''*R*

R. Grigg and G. Yoganathan

Tetrahedron: Asymmetry **1996,** *7,* 273



$C_{12}H_{17}O_2N$

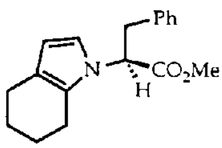
Methyl (S)-2-(N-4,5,6,7-tetrahydroindolyl)propionate

$[\alpha]_D$-51.47 (c 1.5,$CHCl_3$)

ee 92.2% (chiral HPLC)

R. Grigg and G. Yoganathan

Tetrahedron: Asymmetry **1996,** *7,* 273



$C_{18}H_{21}O_2N$

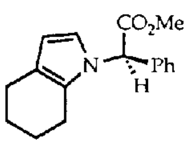
Methyl (S)-2-(N-4,5,6,7-tetrahydroindolyl)-3-phenylpropionate

$[\alpha]_D$-61.27 (c 1.58,$CHCl_3$)

ee 99% (chiral HPLC)

R. Grigg and G. Yoganathan

Tetrahedron: Asymmetry **1996,** *7,* 273



$C_{17}H_{19}O_2N$

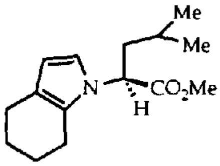
Methyl (R)-2-(N-4,5,6,7-tetrahydroindolyl)phenylacetate

$[\alpha]_D$+71.85 (c 1.08,$CHCl_3$)

ee 100% (chiral HPLC)

Tetrahedron: Asymmetry **1996**, 7, 273

R. Grigg and G. Yoganathan



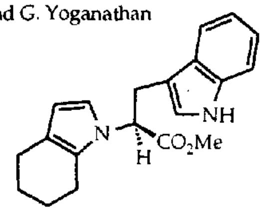
$[\alpha]_D$-39.26 (c 1.08,$CHCl_3$)
ee 99.6% (chiral HPLC)

$C_{15}H_{23}O_2N$

Methyl (S)-2-(N-4,5,6,7-tetrahydroindolyl)-3-i-propylpropionate

Tetrahedron: Asymmetry **1996**, 7, 273

R. Grigg and G. Yoganathan



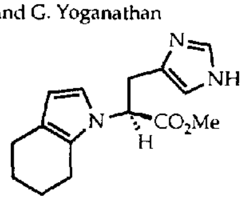
$[\alpha]_D$-49.11 (c 1.01,$CHCl_3$)
ee 96.8% (chiral HPLC)

$C_{20}H_{22}O_2N_2$

Methy (S)-2-(N-4,5,6,7-tetrahydroindolyl)-3-(3'-indolyl)propionate

Tetrahedron: Asymmetry **1996**, 7, 273

R. Grigg and G. Yoganathan



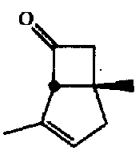
$[\alpha]_D$-65.97 (c 0.77,$CHCl_3$)
ee 96.2% (chiral HPLC)

$C_{15}H_{19}O_2N_3$

Methyl (S)2-(N-4,5,6,7-tetrahydroindolyl)-3-(4'-imidazoyl)propionate

Tetrahedron: Asymmetry **1996**, 7, 277

G. Fantin, M. Fogagnolo, A. Medici, P. Pedrini, E. Marotta, M. Monti, P. Righi



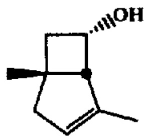
ee = 100% [by GLC analysis on a 25 m dimethyl-n-pentyl-β-cyclodextrin in OV 1701]
$[\alpha]_D^{25}$ = 828.4 (*c* 0.985, $CHCl_3$)
Source of chirality: microbial reduction
Absolute configuration: 1S,5R,6S

$C_9H_{12}O$

1,4-dimethyl-bicyclo[3.2.0]hept-3-en-6-one

Tetrahedron: Asymmetry **1996,** *7,* 277

G. Fantin, M. Fogagnolo, A. Medici, P. Pedrini, E. Marotta, M. Monti, P. Righi



ee = 100% [by GLC analysis on a 25 m dimethyl-n-pentyl-β-cyclodextrin in OV 1701]

$[\alpha]_D^{25}$ = -104.5 (*c* 1.05, $CHCl_3$)

Source of chirality: microbial reduction

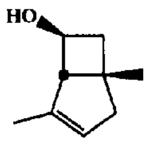
Absolute configuration: 1R,5S,6S

$C_9H_{14}O$

endo-1,4-dimethyl-bicyclo[3.2.0]hept-3-en-6-ol

Tetrahedron: Asymmetry **1996,** *7,* 277

G. Fantin, M. Fogagnolo, A. Medici, P. Pedrini, E. Marotta, M. Monti, P. Righi



ee = 100% [by GLC analysis on a 25 m dimethyl-n-pentyl-β-cyclodextrin in OV 1701]

$[\alpha]_D^{25}$ = 2.93 (*c* 1.07, $CHCl_3$)

Source of chirality: microbial reduction

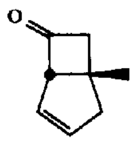
Absolute configuration: 1S,5R,6S

$C_9H_{14}O$

exo-1,4-dimethyl-bicyclo[3.2.0]hept-3-en-6-ol

Tetrahedron: Asymmetry **1996,** *7,* 277

G. Fantin, M. Fogagnolo, A. Medici, P. Pedrini, E. Marotta, M. Monti, P. Righi



ee = 99% [by GLC analysis on a 25 m dimethyl-n-pentyl-β-cyclodextrin in OV 1701]

$[\alpha]_D^{25}$ = 449.6 (*c* 0.9, $CHCl_3$)

Source of chirality: microbial reduction

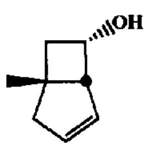
Absolute configuration: 1S,5S

$C_8H_{10}O$

1-methyl-bicyclo[3.2.0]hept-3-en-6-one

Tetrahedron: Asymmetry **1996,** *7,* 277

G. Fantin, M. Fogagnolo, A. Medici, P. Pedrini, E. Marotta, M. Monti, P. Righi



ee = 95% [by GLC analysis on a 25 m dimethyl-n-pentyl-β-cyclodextrin in OV 1701]

$[\alpha]_D^{25}$ = -165.3 (*c* 3, $CHCl_3$)

Source of chirality: microbial reduction

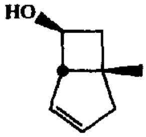
Absolute configuration: 1R,5R,6S

$C_8H_{12}O$

endo-1-methyl-bicyclo[3.2.0]hept-3-en-6-ol

Tetrahedron: Asymmetry **1996**, *7*, 277

G. Fantin, M. Fogagnolo, A. Medici, P. Pedrini, E. Marotta, M. Monti, P. Righi



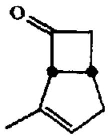
ee 97% [by GLC analysis on a 25 m dimethyl-n-pentyl-β-cyclodextrin in OV 1701]
$[\alpha]_D^{25} = 82.3$ (c 1.2, $CHCl_3$)
Source of chirality: microbial reduction
Absolute configuration: 1S,5S,6S

$C_8H_{12}O$

exo-1-methyl-bicyclo[3.2.0]hept-3-en-6-ol

Tetrahedron: Asymmetry **1996**, *7*, 277

G. Fantin, M. Fogagnolo, A. Medici, P. Pedrini, E. Marotta, M. Monti, P. Righi



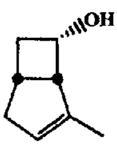
ee = 100% [by GLC analysis on a 25 m dimethyl-n-pentyl-β-cyclodextrin in OV 1701]
$[\alpha]_D^{25} = 797.3$ (c 0.995, $CHCl_3$)
Source of chirality: microbial reduction
Absolute configuration: 1S,5R

$C_8H_{10}O$

4-methyl-bicyclo[3.2.0]hept-3-en-6-one

Tetrahedron: Asymmetry **1996**, *7*, 277

G. Fantin, M. Fogagnolo, A. Medici, P. Pedrini, E. Marotta, M. Monti, P. Righi



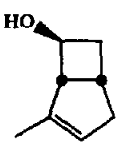
ee = 100% [by GLC analysis on a 25 m dimethyl-n-pentyl-β-cyclodextrin in OV 1701]
$[\alpha]_D^{25} = -136.8$ (c 1.065, $CHCl_3$)
Source of chirality: microbial reduction
Absolute configuration: 1S,5R,6S

$C_8H_{12}O$

endo-4-methyl-bicyclo[3.2.0]hept-3-en-6-ol

Tetrahedron: Asymmetry **1996**, *7*, 277

G. Fantin, M. Fogagnolo, A. Medici, P. Pedrini, E. Marotta, M. Monti, P. Righi



ee = 100% [by GLC analysis on a 25 m dimethyl-n-pentyl-β-cyclodextrin in OV 1701]
$[\alpha]_D^{25} = 12.7$ (c 1.5, $CHCl_3$)
Source of chirality: microbial reduction
Absolute configuration: 1S,5R,6S

$C_8H_{12}O$

exo-4-methyl-bicyclo[3.2.0]hept-3-en-6-ol

Alain Hercouet, Bernard Bessières and Maurice Le Corre

Tetrahedron: Asymmetry **1996,** *7,* 283

$C_5H_9O_2N$

(-)-(1*S*, 2*R*)-Allonorcoronamic Acid

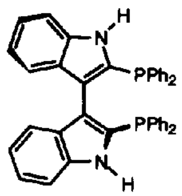
$[\alpha]_D^{20}$= -74 (c = 0.3, H_2O)

Source of chirality : (*S*)-(-)-1,2-propanediol

Absolute configuration : 1*S*, 2*R*

U. Berens, J. M. Brown, J. Long, R. Selke

Tetrahedron: Asymmetry **1996,** *7,* 285



S-14

2,2'-bis-diphenylphosphino[3,3']biindolyl

E.e. = >98%

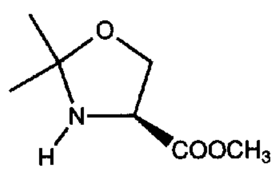
(S)-enantiomer $[\alpha]_D^{25}$ = -81.9 (c = 1, CH_2Cl_2)

Source of chirality - resolution with the palladium complex derived from (R) - N,N-dimethyl-1-naphthyl-1'-ethylamine.

Abs. configuration; X-ray of the resolution complex.

M. Falorni, C. Collu, S. Conti, G. Giacomelli

Tetrahedron: Asymmetry **1996,** *7,* 293



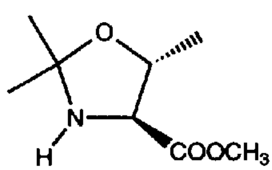
$C_7H_{13}NO_3$

E.e. = ≥95%
b.p. 80°C/20 mBar
$[\alpha]_D^{25}$ -59.0 (c 4, $CHCl_3$)
Source of chirality: (S)-serine
Absolute configuration: 4S

2,2-Dimethyl-4-methoxycarbonyl-1,3-oxazolidine

M. Falorni, C. Collu, S. Conti, G. Giacomelli

Tetrahedron: Asymmetry **1996,** *7,* 293



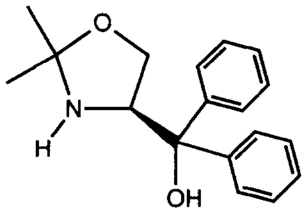
E.e. = ≥95%
b.p. 90°C/20 mBar
$[\alpha]_D^{25}$ -19.23 (c 4, $CHCl_3$)
Source of chirality: (2S,3R)-threonine
Absolute configuration: 4S,5R

$C_8H_{15}NO_3$

2,2-Dimethyl-5-methyl-4-methoxycarbonyl-1,3-oxazolidine

M. Falorni, C. Collu, S. Conti, G. Giacomelli

Tetrahedron: Asymmetry **1996,** *7,* 293



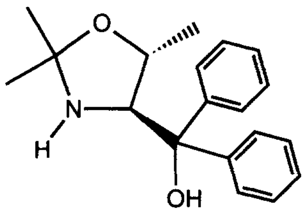
$C_{18}H_{21}NO_2$

Diphenyl-(2,2-dimethyl-1,3-oxazolidin-4-yl)-methanol

E.e. = ≥70% [by ^{19}F nmr of (+)-MTPA amide]
m.p. 135-140°C
$[\alpha]_D^{25}$ -51.0 (c 3, $CHCl_3$)
Source of chirality: (S)-serine
Absolute configuration: 4S

M. Falorni, C. Collu, S. Conti, G. Giacomelli

Tetrahedron: Asymmetry **1996,** *7,* 293



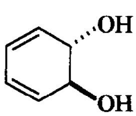
$C_{19}H_{23}NO_2$

Diphenyl-(2,2-dimethyl-5-methyl-1,3-oxazolidin-4-yl)-methanol

D.e. = ≥86% [by nmr]
m.p. 90-92°C
$[\alpha]_D^{25}$ -138.0 (c 2, $CHCl_3$)
Source of chirality: (2S,3R)-threonine
Absolute configuration: 4S,5R

J. Gawronski, K. Gawronska, G. Buczak, A. Katrusiak, P. Skowronek, and H. Suemune

Tetrahedron: Asymmetry **1996,** *7,* 301



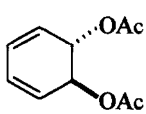
$C_6H_8O_2$

(S,S)-3,5-Cyclohexadiene-1,2-diol

$[\alpha]_D^{20}$ +325.0 (c 0.75; $CHCl_3$)
CD: Δε +10.0 (256 nm); -11.2 (204 nm) in methanol
UV: ε 3630 (260 nm) in methanol
Source of chirality: asymmetric synthesis

J. Gawronski, K. Gawronska, G. Buczak, A. Katrusiak, P. Skowronek, and H. Suemune

Tetrahedron: Asymmetry **1996,** *7,* 301



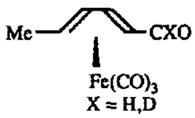
$C_{10}H_{12}O_4$

(S,S)-3,5-Cyclohexadiene-1,2-diol diacetate

CD: Δε +12.6 (254 nm); +9.1 (206 nm) in methanol
UV: ε 3520 (257 nm) in methanol
Source of chirality: asymmetric synthesis

Tetrahedron: Asymmetry **1996**, *7*, 307

James A.S. Howell, Paula J. O'Leary, Michael G. Palin, Gérard Jaouen, Siden Top



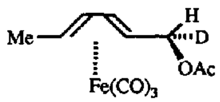
E.e. = 100 % (by NMR)
Source of chirality = resolution with (+)- ephedrine
Absolute configuration = 2*R*
$[\alpha]_D^{20}$ -110 (c=1, $CHCl_3$) ([1-^{1}H] complex)

$C_9H_8FeO_4$ or $C_9H_7DFeO_4$

[1-^{1}H] or [1-^{2}H] (2,4-hexadienal)tricarbonyliron

Tetrahedron: Asymmetry **1996**, *7*, 307

James A.S. Howell, Paula J. O'Leary, Michael G. Palin, Gérard Jaouen, Siden Top



E.e. = 100 % (by NMR)
Source of chirality = Bakers yeast reduction
Absolute configuration = 1*S*, 2*S*
$[\alpha]_D^{20}$ -17 (c=1, $CHCl_3$)

$C_9H_9DFeO_4$

[1-^{2}H] (2,4-hexadien-1-yl acetate)tricarbonyliron