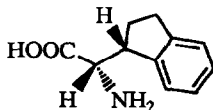


STEREOCHEMISTRY ABSTRACTS

Hubert Josien and Gérard Chassaing\*

*Tetrahedron: Asymmetry* 1992, 3, 1351



$[\alpha]_D^{20} = -9.7$  (c=5; AcOH): from TFA salts

Source of chirality: (-)-bornane-10,2- sultam

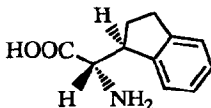
Absolute configuration: 2S,3R

(assigned from X-ray analysis of related derivative)

C<sub>11</sub>H<sub>13</sub>NO<sub>2</sub>  
(2S,3R)-1-indanylglycine

Hubert Josien and Gérard Chassaing\*

*Tetrahedron: Asymmetry* 1992, 3, 1351



$[\alpha]_D^{20} = +53.9$  (c=5; AcOH): from TFA salts

Source of chirality: (-)-bornane-10,2- sultam

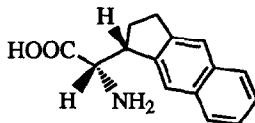
Absolute configuration: 2S,3S

(assigned by correlation with corresponding 2S,3R diastereoisomer)

C<sub>11</sub>H<sub>13</sub>NO<sub>2</sub>  
(2S,3S)-1-indanylglycine

Hubert Josien and Gérard Chassaing\*

*Tetrahedron: Asymmetry* 1992, 3, 1351



$[\alpha]_D^{20} = -69.9$  (c=5; AcOH): from TFA salts

Source of chirality: (-)-bornane-10,2- sultam

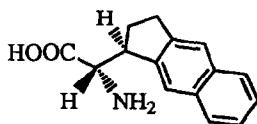
Absolute configuration: 2S,3R

(assigned by correlation with 1-indanylglycine derivative)

C<sub>15</sub>H<sub>15</sub>NO<sub>2</sub>  
(2S,3R)-1-benz[f]indanylglycine

Hubert Josien and Gérard Chassaing\*

*Tetrahedron: Asymmetry* 1992, 3, 1351



$[\alpha]_D^{20} = +90.9$  (c=5; AcOH): from TFA salts

Source of chirality: (-)-bornane-10,2- sultam

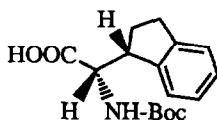
Absolute configuration: 2S,3S

(assigned by correlation with derivative)

C<sub>15</sub>H<sub>15</sub>NO<sub>2</sub>  
(2S,3S)-1-benz[f]indanylglycine

Hubert Josien and Gérard Chassaing\*

*Tetrahedron: Asymmetry* 1992, 3, 1351



$$[\alpha]_D^{20} = +10.8 \text{ (c=5; MeOH)}$$

Source of chirality: (-)-bornane-10,2- sultam

Absolute configuration: 2S,3R

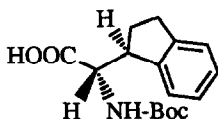
(assigned from X-ray analysis of related derivative)

C<sub>16</sub>H<sub>21</sub>NO<sub>4</sub>

Boc-(2S,3R)-1-indanylglycine

Hubert Josien and Gérard Chassaing\*

*Tetrahedron: Asymmetry* 1992, 3, 1351



$$[\alpha]_D^{20} = +28.6 \text{ (c=5; MeOH)}$$

Source of chirality: (-)-bornane-10,2- sultam

Absolute configuration: 2S,3S

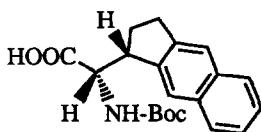
(assigned by correlation with corresponding 2S,3R diastereoisomer)

C<sub>16</sub>H<sub>21</sub>NO<sub>4</sub>

Boc-(2S,3S)-1-indanylglycine

Hubert Josien and Gérard Chassaing\*

*Tetrahedron: Asymmetry* 1992, 3, 1351



$$[\alpha]_D^{20} = -96.2 \text{ (c=5; DMF)}$$

Source of chirality: (-)-bornane-10,2- sultam

Absolute configuration: 2S,3R

(assigned by correlation with 1-indanylglycine derivative)

C<sub>20</sub>H<sub>23</sub>NO<sub>4</sub>

Boc-(2S,3R)-1-benz[f]indanylglycine

Hubert Josien and Gérard Chassaing\*

*Tetrahedron: Asymmetry* 1992, 3, 1351



$$[\alpha]_D^{20} = +112.7 \text{ (c=5; MeOH)}$$

Source of chirality: (-)-bornane-10,2- sultam

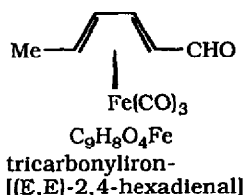
Absolute configuration: 2S,3S

(assigned by correlation with derivative)

C<sub>20</sub>H<sub>23</sub>NO<sub>4</sub>

Boc-(2S,3S)-1-benz[f]indanylglycine

J.A.S. Howell, M.G. Palin, H. El Hafa, S. Top, G. Jaouen



E.e. >99% [by nmr with tris[3-(heptafluorohydroxymethylene)-(+)-camphorato]Eu(III)]

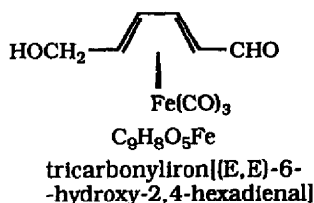
$[\alpha]_D^{20} = -112$  (c 1.0,  $CHCl_3$ )

CD of  $Fe(CO)_2PPh_3$  derivative:  $[\lambda_{max}(\Delta\epsilon)]$  320(-14), 375(+2.5) (c  $5 \times 10^{-4}$ , MeCN)

Source of chirality: biochemical reduction

Absolute configuration: 2R

J.A.S. Howell, M.G. Palin, H. El Hafa, S. Top, G. Jaouen



E.e. >99% [by nmr with tris[3-(heptafluorohydroxymethylene)-(+)-camphorato]Eu(III)]

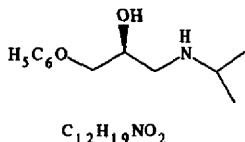
$[\alpha]_D^{20} = -28$  (c  $1 \times 10^{-3}$ , MeCN)

CD:  $[\lambda_{max}(\Delta\epsilon)]$  350(-1.5), 390 (+2.0) (c  $1 \times 10^{-4}$ , MeCN)

Source of chirality: biochemical reduction

Absolute configuration: 2R

A. Kamal, Y. Damayanthi and M.V. Rao



E.e. = >99% (by hplc)

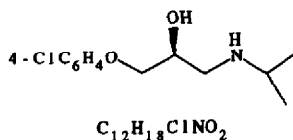
Source of chirality : enzymic synthesis

Absolute configuration : 2S

(assigned by correlation studies)

1-(Isopropylamino)-3-phenoxy-2-propanol

A. Kamal, Y. Damayanthi and M.V. Rao



E.e. = 86% (by hplc)

Source of chirality : enzymic synthesis

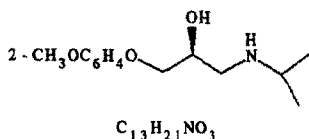
Absolute configuration : 2S

(assigned by correlation studies)

1-(Isopropylamino)-3-(4-chlorophenoxy)-2-propanol

A. Kamal, Y. Damayanthi and M.V. Rao

*Tetrahedron: Asymmetry* 1992, 3, 1361



1-(Isopropylamino)-3-(2-methoxyphenoxy)-2-propanol

E.e. = 60% (by hplc)

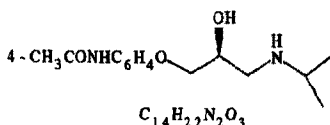
Source of chirality : enzymic synthesis

Absolute configuration : 2S

(assigned by correlation studies)

A. Kamal, Y. Damayanthi and M.V. Rao

*Tetrahedron: Asymmetry* 1992, 3, 1361



1-(Isopropylamino)-3-(4-acetamidophenoxy)-2-propanol

E.e. = >99% (by hplc)

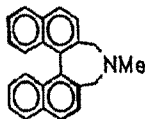
Source of chirality : enzymic synthesis

Absolute configuration : 2S

(assigned by correlation studies)

I. G. Stará, I. Starý, J. Závada

*Tetrahedron: Asymmetry* 1992, 3, 1365



$C_{23}H_{19}N$

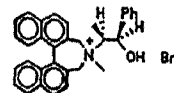
4,5-Dihydro-3H-4-methylidindaphth-(2,1-c;1',2'-e)azepine

E.e. 100% (by nmr with (S)-(+)-2,2,2-trifluoro-1-(9-anthryl)ethanol)

$[\alpha]_D^{22} +446$  (c 0.47, DMSO)

M.p. 151-3°C

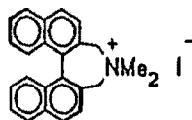
Source of chirality:  
prepared from



Absolute configuration: S  
(assigned by a precursor)

I. G. Stará, I. Starý, J. Závada

*Tetrahedron: Asymmetry* 1992, 3, 1365



$C_{24}H_{22}IN$

4,5-Dihydro-4,4-dimethyl-3H-dinaphth(2,1-c;1',2'-e)azepinium iodide

E.e. 100%

$[\alpha]_D^{22} +314$  (c 0.42, DMSO)

M.p. 197-9°C

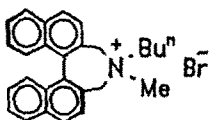
Source of chirality:

(S)-4,5-dihydro-3H-4-methyl-dinaphth(2,1-c;1',2'-e)azepine

Absolute configuration: S  
(assigned by a precursor)

I. G. Stará, I. Starý, J. Závada

*Tetrahedron: Asymmetry* 1992, 3, 1365



$C_{27}H_{28}BrN$

4,5-Dihydro-4-(1-butyl)-4-methyl-3H-dinaphth(2,1-c;1',2'-e)azepinium bromide

E.e. 100%

$[\alpha]_D^{22} +268$  (c 0.51, DMSO)

M.p. 178-81°C

Source of chirality:

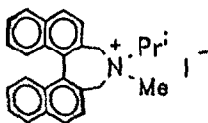
(S)-4,5-dihydro-3H-4-methyl-dinaphth(2,1-c;1',2'-e)azepine

Absolute configuration: S

(assigned by a precursor)

I. G. Stará, I. Starý, J. Závada

*Tetrahedron: Asymmetry* 1992, 3, 1365



$C_{26}H_{26}IN$

4,5-Dihydro-4-methyl-4-(2-propyl)-3H-dinaphth(2,1-c;1',2'-e)azepinium iodide

E.e. 100%

$[\alpha]_D^{22} +261$  (c 0.94, DMSO)

M.p. 253-6°C dec

Source of chirality:

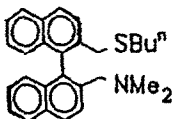
(S)-4,5-dihydro-3H-4-methyl-dinaphth(2,1-c;1',2'-e)azepine

Absolute configuration: S

(assigned by a precursor)

I. G. Stará, I. Starý, J. Závada

*Tetrahedron: Asymmetry* 1992, 3, 1365



$C_{28}H_{31}NS$

2-(1-Butylthiomethyl)-2'-(N,N-dimethylaminomethyl)-1,1'-binaphthyl

E.e. 100% (by nmr with (S)-(+)-2,2,2-trifluoro-1-(9-anthryl)ethanol)

$[\alpha]_D^{22} +117$  (c 0.42,  $C_6H_6$ )

Source of chirality:

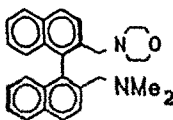
(R)-4,5-dihydro-3H-4-methyl-dinaphth(2,1-c;1',2'-e)azepine

Absolute configuration: R

(assigned by a precursor)

I. G. Stará, I. Starý, J. Závada

*Tetrahedron: Asymmetry* 1992, 3, 1365



$C_{28}H_{30}N_2O$

2-(N,N-dimethylaminomethyl)-2'-(4-morpholinylmethyl)-1,1'-binaphthyl

E.e. 100% (by nmr with (S)-(+)-2,2,2-trifluoro-1-(9-anthryl)ethanol)

$[\alpha]_D^{22} +69$  (c 0.27,  $CHCl_3$ )

Source of chirality:

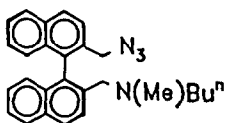
(R)-4,5-dihydro-3H-4-methyl-dinaphth(2,1-c;1',2'-e)azepine

Absolute configuration: R

(assigned by a precursor)

I. G. Stará, I. Starý, J. Závada

*Tetrahedron: Asymmetry* 1992, 3, 1365



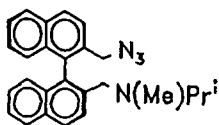
$C_{27}H_{28}N_4$   
2-azidomethyl-2'-(N-(1-butyl)-  
N-methylaminomethyl)-1,1'-  
binaphthyl

E.e. 100% (by nmr of a precursor)  
 $[\alpha]_D^{22} -87$  (c 0.55,  $CHCl_3$ )  
Source of chirality:  
(S)-4,5-dihydro-3H-4-methyl-  
dinaphth(2,1-c;1',2'-e)azepine

Absolute configuration: S  
(assigned by a precursor)

I. G. Stará, I. Starý, J. Závada

*Tetrahedron: Asymmetry* 1992, 3, 1365



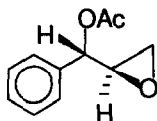
$C_{26}H_{26}N_4$   
2-azidomethyl-2'-(N-methyl-N-  
(2-propyl)aminomethyl)-1,1'-  
binaphthyl

E.e. 100% (by nmr of a precursor)  
 $[\alpha]_D^{22} -94$  (c 0.28,  $CHCl_3$ )  
Source of chirality:  
(S)-4,5-dihydro-3H-4-methyl-  
dinaphth(2,1-c;1',2'-e)azepine

Absolute configuration: S  
(assigned by a precursor)

Mitsuhiro Takeshita, Reiko Yaguchi, Nami Akutsu

*Tetrahedron: Asymmetry* 1992, 3, 1369



$C_{11}H_{12}O_3$   
(1S, 2R)-1-Phenylglycidyl acetate

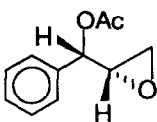
E.e. = 93%[by optical purity of (1S, 2R)-1-phenyl-  
1,2-propanediol]

$[\alpha]_D^{22} +78.2$ (c=2.9,  $CHCl_3$ )

Source of chirality: enzymatic esterification  
of the racemate

Mitsuhiro Takeshita, Reiko Yaguchi, Nami Akutsu

*Tetrahedron: Asymmetry* 1992, 3, 1369



$C_{11}H_{12}O_3$   
(1S, 2S)-1-Phenylglycidyl acetate

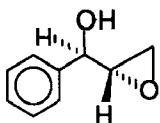
E.e. = 89%[by optical purity of (1S, 2S)-1-phenyl-  
1,2-propanediol]

$[\alpha]_D^{24} +49.8$ (c=3.4,  $CHCl_3$ )

Source of chirality: enzymatic esterification  
of the racemate

Mitsuhiro Takeshita, Reiko Yaguchi, Nami Akutsu

*Tetrahedron: Asymmetry* 1992, 3, 1369



$C_{11}H_{12}O_3$

(1*R*, 2*S*)-1-Phenyglycidol

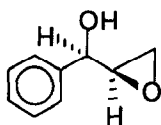
E.e. = 95%[by optical purity of (1*R*, 2*S*)-1-phenyl-1,2-propanediol]

$[\alpha]_D^{22} -108.5(c=3.3, CHCl_3)$

Source of chirality: enzymatic esterification of the racemate

Mitsuhiro Takeshita, Reiko Yaguchi, Nami Akutsu

*Tetrahedron: Asymmetry* 1992, 3, 1369



$C_{11}H_{12}O_3$

(1*R*, 2*R*)-1-Phenyglycidol

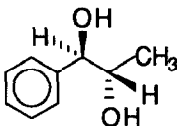
E.e. = 90%[by optical purity of (1*R*, 2*R*)-1-phenyl-1,2-propanediol]

$[\alpha]_D^{24} -11.5(c=4.5, CHCl_3)$

Source of chirality: enzymatic esterification of the racemate

Mitsuhiro Takeshita, Reiko Yaguchi, Nami Akutsu

*Tetrahedron: Asymmetry* 1992, 3, 1369



$C_9H_{12}O_2$

(1*R*, 2*S*)-1-Phenyl-1,2-propanediol

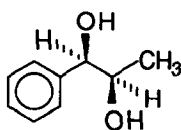
E.e. = 95%(by  $^1H$ -NMR)

$[\alpha]_D^{25} -38.5(c=2.2, CHCl_3)$

Source of chirality: synthesis from (1*R*, 2*S*)-1-phenylglycidol

Mitsuhiro Takeshita, Reiko Yaguchi, Nami Akutsu

*Tetrahedron: Asymmetry* 1992, 3, 1369



$C_9H_{12}O_2$

(1*R*, 2*R*)-1-Phenyl-1,2-propanediol

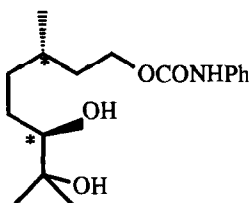
E.e. = 90%(by  $^1H$ -NMR)

$[\alpha]_D^{18} -45.5(c=3.3, CHCl_3)$

Source of chirality: synthesis from (1*R*, 2*R*)-1-phenylglycidol

X. M. Zhang, A. Archelas and R. Furstoss \*

*Tetrahedron: Asymmetry* 1992, 3, 1373



Stereoisomeric composition : 93% 3S,6R / 6% 3R,6R / 1% 3S,6S  
[by HPLC analysis of the (-)-camphanic ester]

$$[\alpha]_{\text{D}}^{22} = +16.9 \quad (c \ 1.46, \text{MeOH})$$

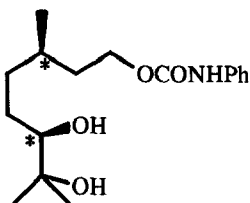
Source of chirality : microbiological oxygenation

$\text{C}_{17}\text{H}_{27}\text{NO}_4$

6,7-dihydroxy-3,7-dimethyl-octan-1-yl phenylcarbamate

X. M. Zhang, A. Archelas and R. Furstoss \*

*Tetrahedron: Asymmetry* 1992, 3, 1373



Stereoisomeric composition : 97% 3R,6R / 3% 3R,6S  
[by HPLC analysis of the (-)-camphanic ester]

$$[\alpha]_{\text{D}}^{22} = +24.6 \quad (c \ 1.49, \text{MeOH})$$

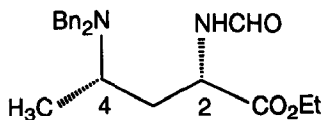
Source of chirality : microbiological oxygenation

$\text{C}_{17}\text{H}_{27}\text{NO}_4$

6,7-dihydroxy-3,7-dimethyl-octan-1-yl phenylcarbamate

M.T. Reetz and F. Kayser

*Tetrahedron: Asymmetry* 1992, 3, 1377



e.e. = > 98% [by HPLC of Mosher-derivative]

Source of chirality: alanine and asymmetric hydrogenation

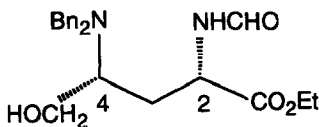
Absolute configuration: 2S,4S

$\text{C}_{22}\text{H}_{28}\text{N}_2\text{O}_4$

(2S,4S)-Ethyl-2-[formylamino-4-N,N-dibenzylamino]pentanoate

M.T. Reetz and F. Kayser

*Tetrahedron: Asymmetry* 1992, 3, 1377



e.e. = > 98% [by HPLC of Mosher-derivative]

Source of chirality: serine and asymmetric hydrogenation

Absolute configuration: 2S,4R [by X-ray study]

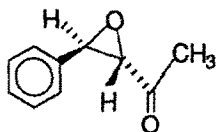
$\text{C}_{22}\text{H}_{28}\text{N}_2\text{O}_5$

(2S,4R)-Ethyl-2-[formylamino-4-N,N-dibenzylamino-5-hydroxy]pentanoate



Mitsuhiro Takeshita, Nami Akutsu

*Tetrahedron: Asymmetry* 1992, 3, 1381



$C_{10}H_{10}O_2$

*trans*-(3*R*, 4*R*)-3,4-Epoxy-4-phenyl-2-butanone

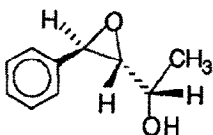
E.e. = 98% [ by  $^1\text{H-NMR}$  with  $\text{Eu}(\text{hfc})_3$  ]

$[\alpha]_D^{25} +77.5 (c=2.2, \text{CHCl}_3)$

Source of chirality: enzymatic kinetic resolution of the racemate

Mitsuhiro Takeshita, Nami Akutsu

*Tetrahedron: Asymmetry* 1992, 3, 1381



$C_{10}H_{12}O_2$

*trans*-(2*S*, 3*R*, 4*R*)-3,4-Epoxy-4-phenyl-2-butanol

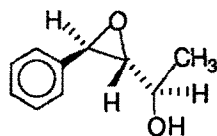
E.e. = 98% ( by  $^1\text{H-NMR}$  )

$[\alpha]_D^{22} +16.0 (c=2.4, \text{CHCl}_3)$

Source of chirality: enzymatic reduction

Mitsuhiro Takeshita, Nami Akutsu

*Tetrahedron: Asymmetry* 1992, 3, 1381



$C_{10}H_{12}O_2$

*trans*-(2*R*, 3*R*, 4*R*)-3,4-Epoxy-4-phenyl-2-butanol

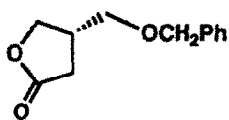
E.e. = 98% ( by  $^1\text{H-NMR}$  )

$[\alpha]_D^{22} +19.6 (c=6.3, \text{CHCl}_3)$

Source of chirality:  $\text{NaBH}_4$  reduction of *trans*-(3*R*, 4*R*)-3,4-epoxy-4-phenyl-2-butanone

Kunihiko Takabe,\* Masaya Tanaka, Masahisa Sugimoto,  
Takashi Yamada, Hidemi Yoda

*Tetrahedron: Asymmetry* 1992, 3, 1385



$C_{12}H_{14}O_3$

3-Benzyloxymethylbutanolid

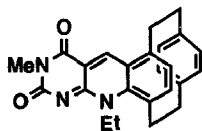
E.e. = 95.0% [ by HPLC ]

$[\alpha]_D^{23} = +32.5 (c 0.93, \text{CHCl}_3)$

Absolute configuration 3*S*

Reiko Yanada, Makiko Higashikawa, Yoshihisa Miwa,  
Toru Taga, and Fumio Yoneda

*Tetrahedron: Asymmetry* 1992, 3, 1387



6,9-(1,4-phenylenediethylene)-  
5-deazaisalloxazine

E.e. > 99 %

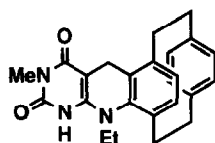
Absolute configuration: unknown

$[\alpha]_D^{23} = +697$  (c=0.50, CHCl<sub>3</sub>)

$[\alpha]_D^{24} = -706$  (c=0.44, CHCl<sub>3</sub>)

Reiko Yanada, Makiko Higashikawa, Yoshihisa Miwa,  
Toru Taga, and Fumio Yoneda

*Tetrahedron: Asymmetry* 1992, 3, 1387



6,9-(1,4-phenylenediethylene)-  
1,5-dihydro-5-deazaisalloxazine

E.e. > 99 %

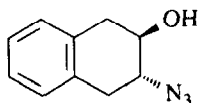
Absolute configuration: unknown

$[\alpha]_D^{23} = +159$  (c=1.00, CHCl<sub>3</sub>)

$[\alpha]_D^{23} = -157$  (c=1.00, CHCl<sub>3</sub>)

C. Exl, H. Hönig, G. Renner, R. Rogi-Kohlenprath,  
V. Seebauer and P. Seuffer-Wasserthal

*Tetrahedron: Asymmetry* 1992, 3, 1391



C<sub>10</sub>H<sub>11</sub>N<sub>3</sub>O

(2R, 3R)- 3-Azido-1,2,3,4-tetrahydro-2-naphthol

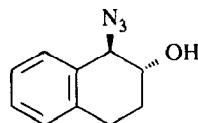
E.e. = >98% (by <sup>19</sup>F-nmr of Mosher-derivative)  
 $[\alpha]_D^{20} = -136.1$  (c = 2.0, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality:  
enzyme catalyzed racemate resolution

Absolute configuration 2R, 3R  
(assigned by known enzyme preference)

C. Exl, H. Hönig, G. Renner, R. Rogi-Kohlenprath,  
V. Seebauer and P. Seuffer-Wasserthal

*Tetrahedron: Asymmetry* 1992, 3, 1391



C<sub>10</sub>H<sub>11</sub>N<sub>3</sub>O

(1R, 2R)- 1-Azido-1,2,3,4-tetrahydro-2-naphthol

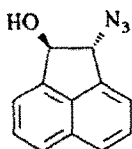
E.e. = 98% (by <sup>19</sup>F-nmr of Mosher-derivative)  
 $[\alpha]_D^{20} = +12.6$  (c = 2.0, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality:  
enzyme catalyzed racemate resolution

Absolute configuration 1R, 2R  
(assigned by known enzyme preference)

C. Exl, H. Hönig, G. Renner, R. Rogi-Kohlenprath,  
V. Seebauer and P. Seuffer-Wasserthal

*Tetrahedron: Asymmetry* 1992, 3, 1391



C<sub>12</sub>H<sub>9</sub>N<sub>3</sub>O

(1R, 2R)- 2-Azido-1,2-dihydro-acenaphthene-1-ol

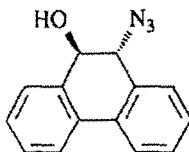
E.e. = 71% (by <sup>19</sup>F-nmr of Mosher-derivative)  
[α]<sub>D</sub><sup>20</sup> = +44.7 (c = 2.0, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality:  
enzyme catalyzed racemate resolution

Absolute configuration 1R, 2R  
(assigned by known enzyme preference)

C. Exl, H. Hönig, G. Renner, R. Rogi-Kohlenprath,  
V. Seebauer and P. Seuffer-Wasserthal

*Tetrahedron: Asymmetry* 1992, 3, 1391



C<sub>14</sub>H<sub>11</sub>N<sub>3</sub>O

(9R, 10R)- 10-Azido-9,10-dihydro-phenanthrene-9-ol

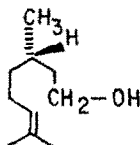
E.e. = >98% (by <sup>19</sup>F-nmr of Mosher-derivative)  
[α]<sub>D</sub><sup>20</sup> = -200.2 (c = 2.0, CH<sub>2</sub>Cl<sub>2</sub>)

Source of chirality:  
enzyme catalyzed racemate resolution

Absolute configuration 9R, 10R  
(assigned by known enzyme preference)

Virinder S. Parmar,\* Ashok K. Prasad, Prashant K. Singh  
and Suman Gupta

*Tetrahedron: Asymmetry* 1992, 3, 1395



(R)-(+)-3,7-Dimethyl-6-octenol

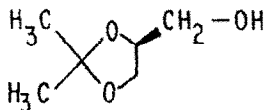
Optical Purity = +72.3%

[α]<sub>D</sub><sup>22</sup> = +3.83 (c 0.18, CHCl<sub>3</sub>)

Source of chirality : obtained by  
enzymatic transesterification (of  
the other isomer) on racemic mixture

Virinder S. Parmar,\* Ashok K. Prasad, Prashant K. Singh  
and Suman Gupta

*Tetrahedron: Asymmetry* 1992, 3, 1395



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

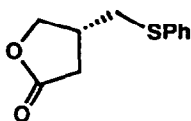
Optical Purity = +22.8%

[α]<sub>D</sub><sup>22</sup> = + 3.47 (c 0.18, CHCl<sub>3</sub>)

Source of chirality : obtained by  
enzymatic transesterification (of  
the other isomer) on racemic mixture

K. Takabe, H. Hiyoshi, H. Sawada, M. Tanaka, A. Miyazaki,  
T. Yamada, T. Katagiri and H. Yoda

*Tetrahedron: Asymmetry* **1992**, *3*, 1399



E.e. 99% (by HPLC: Chiralcel OD,  
hexane / 2-propanol = 70 / 30 )

$[\alpha]_D^{23} +15.8$  (c0.985,  $\text{CHCl}_3$ )

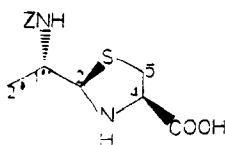
$\text{C}_{11}\text{H}_{12}\text{O}_2\text{S}_1$

3-Phenylthiomethylbutanolide

Absolute configuration 3R

A. Wyslouch, M. Lisowski, A. Pędyczak, I.Z. Siemion

*Tetrahedron: Asymmetry* **1992**, *3*, 1401



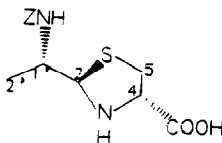
E.e. = >98% by nmr  
CD:  $[\theta]^{245} = -4380$ ,  $[\theta]^{200} = -20570$   
(c=0.005, MeOH)  
Source of chirality: S-alanine, R-cysteine,  
asymmetric synthesis  
Absolute configuration: 1'S, 2R, 4R  
(assigned by nmr)

$\text{C}^{14}\text{H}^{18}\text{O}^4\text{N}^2\text{S}$

2-(1'-(N-benzyloxycarbonylamino)ethyl)-thiazolidine-4-carboxylic acid

A. Wyslouch, M. Lisowski, A. Pędyczak, I.Z. Siemion

*Tetrahedron: Asymmetry* **1992**, *3*, 1401



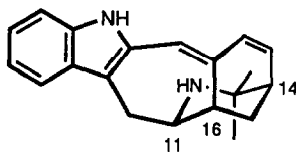
E.e. = >98% by nmr  
CD:  $[\theta]^{245} = 7550$ ,  $[\theta]^{200} = 17810$   
(c=0.0044, MeOH)  
Source of chirality: S-alanine, S-cysteine,  
asymmetric synthesis  
Absolute configuration: 1'S, 2R, 4S  
(assigned by nmr)

$\text{C}^{14}\text{H}^{18}\text{O}^4\text{N}^2\text{S}$

2-(1'-(N-benzyloxycarbonylamino)ethyl)-thiazolidine-4-carboxylic acid

M. Dobler, R. Beerli, W. K. Weissmahr, and H.-J. Borschberg\*

*Tetrahedron: Asymmetry* **1992**, *3*, 1411



E.e.=100% [by synthesis from optically pure (*S*)-7-(phenylthio)-*p*-menth-1-en-8-amine].

$[\alpha]_D^{25} = +475$  (c 0.28,  $\text{CHCl}_3$ )

Source of chirality: natural (*S*)-perilla alcohol served as building block.  
[R. Beerli, H.-J. Borschberg, *Helv. Chim. Acta* **1991**, *74*, 110.]

$\text{C}_{20}\text{H}_{22}\text{N}_2$

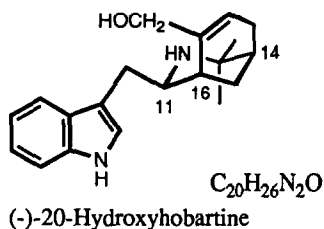
(+)-Aristolasene

Absolute configuration 11R, 14R, 16S

(assigned by synthesis from (*S*)-perilla alcohol)

M. Dobler, R. Beerli, W. K. Weissmahr, and H.-J. Borschberg\*

*Tetrahedron: Asymmetry* **1992**, 3, 1411



E.e.=100 % [by synthesis from optically pure (*S*)-7-(phenylthio)-*p*-menth-1-en-8-amine].

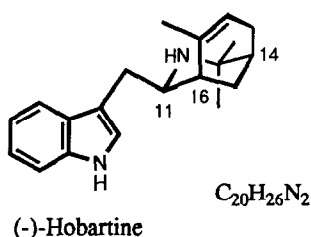
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = - 16 (c 0.24, CHCl<sub>3</sub>)

Source of chirality: natural (*S*)-perilla alcohol served as building block. [R. Beerli, H.-J. Borschberg, *Helv. Chim. Acta* **1991**, 74, 110.]

Absolute configuration 11*R*, 14*R*, 16*S*  
(assigned by synthesis from (*S*)-perilla alcohol)

M. Dobler, R. Beerli, W. K. Weissmahr, and H.-J. Borschberg\*

*Tetrahedron: Asymmetry* **1992**, 3, 1411



E.e.=100 % [by synthesis from optically pure (*S*)-7-(phenylthio)-*p*-menth-1-en-8-amine].

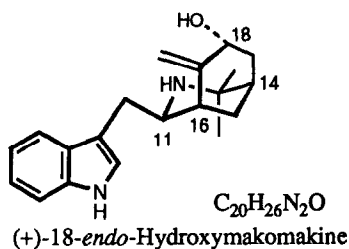
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = - 27 (c 1.7, CHCl<sub>3</sub>)

Source of chirality: natural (*S*)-perilla alcohol served as building block. [R. Beerli, H.-J. Borschberg, *Helv. Chim. Acta* **1991**, 74, 110.]

Absolute configuration 11*R*, 14*R*, 16*S*  
(assigned by synthesis from (*S*)-perilla alcohol)

M. Dobler, R. Beerli, W. K. Weissmahr, and H.-J. Borschberg\*

*Tetrahedron: Asymmetry* **1992**, 3, 1411



E.e.=100 % [by synthesis from optically pure (*S*)-7-(phenylthio)-*p*-menth-1-en-8-amine].

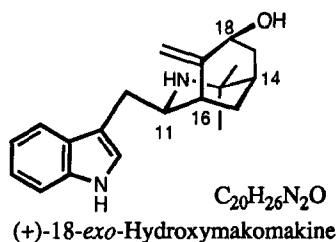
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = + 91.5 (c 0.823, CHCl<sub>3</sub>)

Source of chirality: natural (*S*)-perilla alcohol served as building block. [R. Beerli, H.-J. Borschberg, *Helv. Chim. Acta* **1991**, 74, 110.]

Absolute configuration 11*R*, 14*R*, 16*S*, 18*R*  
(assigned by synthesis from (*S*)-perilla alcohol)

M. Dobler, R. Beerli, W. K. Weissmahr, and H.-J. Borschberg\*

*Tetrahedron: Asymmetry* **1992**, 3, 1411



E.e.=100 % [by synthesis from optically pure (*S*)-7-(phenylthio)-*p*-menth-1-en-8-amine].

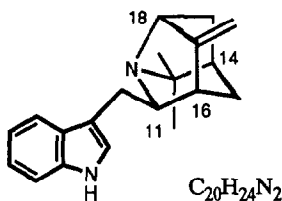
[ $\alpha$ ]<sub>D</sub><sup>25</sup> = + 84.8 (c 0.35, CHCl<sub>3</sub>)

Source of chirality: natural (*S*)-perilla alcohol served as building block. [R. Beerli, H.-J. Borschberg, *Helv. Chim. Acta* **1991**, 74, 110.]

Absolute configuration 11*R*, 14*R*, 16*S*, 18*S*  
(assigned by synthesis from (*S*)-perilla alcohol)

M. Dobler, R. Beerli, W. K. Weissmahr, and H.-J. Borschberg\*

*Tetrahedron: Asymmetry* 1992, 3, 1411



(+)-Aristofrucosine

E.e.=100 % [by synthesis from optically pure (*S*)-7-(phenylthio)-*p*-menth-1-en-8-amine].

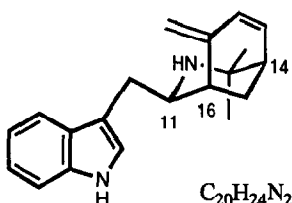
$[\alpha]_D^{25} = +15.4$  (c 0.53,  $CHCl_3$ ) [+ 57.3 for protonated form]

Source of chirality: natural (*S*)-perilla alcohol served as building block.  
[R. Beerli, H.-J. Borschberg, *Helv. Chim. Acta* 1991, 74, 110.]

Absolute configuration 11*R*, 14*R*, 16*S*, 18*R*  
(assigned by synthesis from (*S*)-perilla alcohol)

M. Dobler, R. Beerli, W. K. Weissmahr, and H.-J. Borschberg\*

*Tetrahedron: Asymmetry* 1992, 3, 1411



(+)-Sorelline

E.e.=100 % [by synthesis from optically pure (*S*)-7-(phenylthio)-*p*-menth-1-en-8-amine].

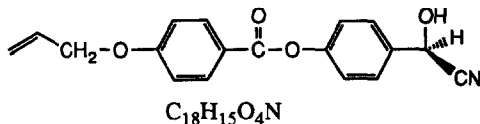
$[\alpha]_D^{25} = +158.3$  (c 0.97,  $CHCl_3$ )

Source of chirality: natural (*S*)-perilla alcohol served as building block.  
[R. Beerli, H.-J. Borschberg, *Helv. Chim. Acta* 1991, 74, 110.]

Absolute configuration 11*R*, 14*R*, 16*S*  
(assigned by synthesis from (*S*)-perilla alcohol)

**Polymer Attached Cyclic Dipeptides as Catalysts for Enantioselective Cyanohydrin Formation**

Hyun J. Kim and W Roy Jackson, Department of Chemistry, Monash University, Clayton, Victoria, Australia 3168



(2*R*)-4-(2-hydroxy)-(4-allyloxy phenylcarboxy)phenyl acetonitrile

e.e.: 10 ~ 78% by  $^1H$  n.m.r.

spectra of the corresponding (+)-cyhalothrin ester.

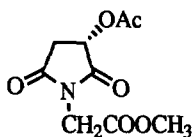
Source of chirality: chiral catalysts (derivatives of cyclo-[(*S*)-Phe-(*S*)-His])

Absolute configuration: *R*

J.F. Almeida, J. Anaya, N. Martín, M. Grande, J. R. Morán,

M<sup>a</sup> C. Caballero

*Tetrahedron: Asymmetry* 1992, 3, 1431



(3*S*) 3-Acetoxy-*N*-methoxycarbonylmethylsuccinimide

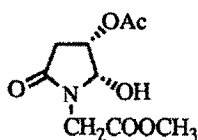
$[\alpha]_D -26.4$  (c=1, MeOH).

Source of chirality: L-malic acid,  $[\alpha]_D -7.9$  (c=1, MeOH)

Absolute configuration: 3*S*

J.F. Almeida, J. Anaya, N. Martín, M. Grande, J. R. Morán,  
M<sup>a</sup> C. Caballero

*Tetrahedron: Asymmetry* 1992, 3, 1431



$[\alpha]_D -26.6$  (c=1, MeOH).

$^1\text{H NMR}$  ( $\delta$ , ppm): 5.36(H<sub>5</sub>, J<sub>4,5</sub> 5.3 Hz);

5.30(H<sub>4</sub>, J<sub>4,5</sub> 5.3; J<sub>4,3c</sub> 5.3; J<sub>4,3t</sub> 7.3 Hz)

Source of chirality: L-malic acid,  $[\alpha]_D -7.9$  (c=1, MeOH)

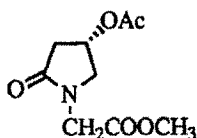
Absolute configuration: 4S, 5S

C<sub>9</sub>H<sub>11</sub>NO<sub>6</sub>

(4S, 5S) 4-Acetoxy-5-hydroxy-N-methoxycarbonylmethyl-2-pyrrolidinone

J.F. Almeida, J. Anaya, N. Martín, M. Grande, J. R. Morán,  
M<sup>a</sup> C. Caballero

*Tetrahedron: Asymmetry* 1992, 3, 1431



$[\alpha]_D -38.6$  (c=1, MeOH).

Source of chirality: L-malic acid,  $[\alpha]_D -7.9$  (c=1, MeOH)

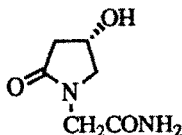
Absolute configuration: 4S

C<sub>9</sub>H<sub>13</sub>NO<sub>5</sub>

(4S) 4-Acetoxy-N-methoxycarbonylmethyl-2-pyrrolidinone

J.F. Almeida, J. Anaya, N. Martín, M. Grande, J. R. Morán,  
M<sup>a</sup> C. Caballero

*Tetrahedron: Asymmetry* 1992, 3, 1431



$[\alpha]_D -38.5$  (c=1, H<sub>2</sub>O). M.p. 135-6°C (MeOH)

Source of chirality: L-malic acid,  $[\alpha]_D -7.9$  (c=1, MeOH)

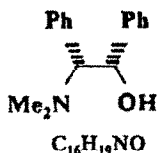
Absolute configuration: 4S

C<sub>6</sub>H<sub>10</sub>N<sub>2</sub>O<sub>3</sub>

(4S) 4-Hydroxy-2-oxopyrrolidine-N-acetamide.

Li Shengjian, Jiang Yaozhong\*, Mi Aiqiao

*Tetrahedron: Asymmetry* 1992, 3, 1467



E.  $\epsilon = 99.5\%$

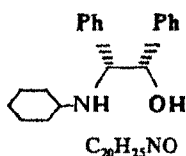
$[\alpha]_D^{22} +122.43$  (C 0.272, EtOH)

Source of chirality: resolution

Absolute configuration 1S, 2R

2-N,N-Dimethylamino-1,2-diphenylethanol

Li ShengJian, Jiang Yaozhong\*, Mi Aiqiao



2-N-Cyclohexylamino-1,2-diphenyl ethanol

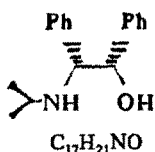
E. e > 99%

$[\alpha]_D^{18} -41.55 (C 0.55, CHCl_3)$

Source of chirality: resolution

Absolute configuration 1S, 2R

Li ShengJian, Jiang Yaozhong\*, Mi Aiqiao



2-N-isopropylamino-1,2-diphenyl ethanol

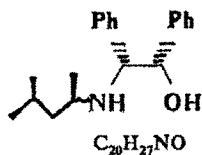
E. e > 99%

$[\alpha]_D^{18} -29.59 (C 0.49, CHCl_3)$

Source of chirality: resolution

Absolute configuration 1S, 2R

Li ShengJian, Jiang Yaozhong\*, Mi Aiqiao



2-N-(4-methylpentan-2-yl)amino-1,2-diphenyl ethanol

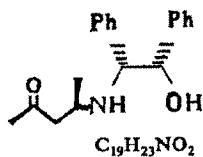
E. e > 99%

$[\alpha]_D^{18} -16.07 (C 0.056, CHCl_3)$

Source of chirality: resolution

Absolute configuration 1S, 2R

Li ShengJian, Jiang Yaozhong\*, Mi Aiqiao



2-N-(4-pentanone-2-yl)amino-1,2-diphenyl ethanol

E. e > 99%

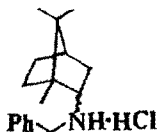
$[\alpha]_D^{18} +347 (C 0.10, CHCl_3)$

Source of chirality: resolution

Absolute configuration 1S, 2R



Li ShengJian, Jiang Yaozhong\*, Mi Aiqiao



$C_{17}H_{26}NCl$

1-N-benzyl bornylamine hydrochloride (1S)

E.  $\epsilon > 92.4\%$

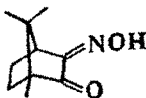
$[\alpha]_D^{24} -46.6$ (C 0.42,  $CHCl_3$ )

Source of chirality: asymm. reduction

Absolute configuration 1S

(assigned by  $^1H$ NMR)

Li ShengJian, Jiang Yaozhong\*, Mi Aiqiao



$C_{10}H_{15}NO_2$

3-Hydroxyiminocamphor

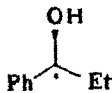
E.  $\epsilon > 98\%$

$[\alpha]_D^{23} +174.2$ (C 0.275, EtOH)

Source of chirality: natural

Absolute configuration 1R

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$C_9H_{12}O$

1-Phenyl-1-propanol

E.  $\epsilon = 96.8\%$

$[\alpha]_D^{20} -44.01$ (C 0.68,  $CHCl_3$ )

Source of chirality: asymm. catalysis

Absolute configuration 1S