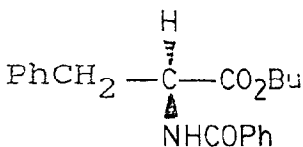


STEREOCHEMISTRY ABSTRACTS

H. S. Bevinakatti, A. A. Banerji, R. V. Newadkar, A. A. Mokashi.

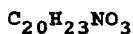
*Tetrahedron: Asymmetry* 1992, 3, 1505



E.e % 69 (by chiral HPLC)

Source of chirality : Lipase Catalysed enantioselective ring opening of 2 Phenyl-Oxazoline-5 Ones

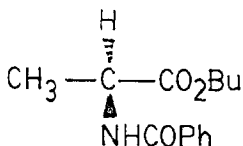
Absolute Configuration : S



Butyl N-benzoyl phenyl alaninate

H. S. Bevinakatti, A. A. Banerji, R. V. Newadkar, A. A. Mokashi.

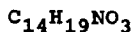
*Tetrahedron: Asymmetry* 1992, 3, 1505



E.e % 47 (by chiral HPLC)

Source of chirality : Lipase Catalysed enantioselective ring opening of 2 Phenyl-Oxazoline-5 Ones

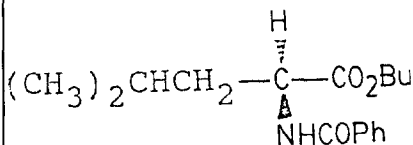
Absolute Configuration : S



Butyl N-benzoyl alaninate

H. S. Bevinakatti, A. A. Banerji, R. V. Newadkar, A. A. Mokashi.

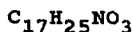
*Tetrahedron: Asymmetry* 1992, 3, 1505



E.e % 66 (by chiral HPLC)

Source of chirality : Lipase Catalysed enantioselective ring opening of 2 Phenyl-Oxazoline-5 Ones

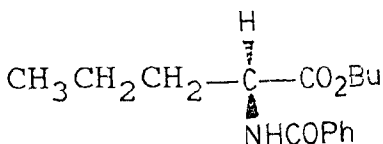
Absolute Configuration : S



Butyl N-benzoyl leucinate

H. S. Bevinakatti, A. A. Banerji, R. V. Newadkar, A. A. Mokashi.

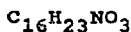
*Tetrahedron: Asymmetry* 1992, 3, 1505



E.e % 43 (by chiral HPLC)

Source of chirality : Lipase Catalysed enantioselective ring opening of 2 Phenyl-Oxazoline-5 Ones

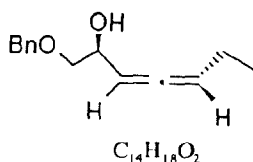
Absolute Configuration : S



Butyl N-benzoyl norvalinate

S-K Kang, S-G Kim and D-G Cho

*Tetrahedron: Asymmetry* 1992, 3, 1509

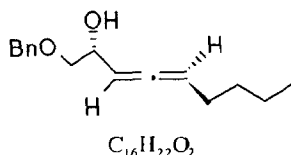


(2*S*,5*R*)-(-)-1-Benzyloxyhepta-3,4-dien-2-ol

E.e. = 89% ( GLC and  $^1H$ -NMR of the acetate )  
 $[\alpha]_D^{25} -22.8$  (  $c = 0.35$ ,  $CHCl_3$  )  
Source of Chirality : natural and asymm. synth.  
Absolute Configuration : 2*S*, 5*R*

S-K Kang, S-G Kim and D-G Cho

*Tetrahedron: Asymmetry* 1992, 3, 1509

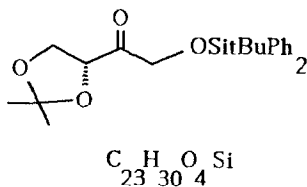


(2*R*,5*S*)-(+)-1-Benzyloxynona-3,4-dien-2-ol

E.e. = >99% ( GLC and  $^1H$ -NMR of the acetate )  
 $[\alpha]_D^{25} +19.7$  (  $c = 0.33$ ,  $CHCl_3$  )  
Source of Chirality: natural and asymm. synth.  
Absolute Configuration : 2*R*, 5*S*

M. Carda, F. González, S. Rodríguez, J.A. Marco\*

*Tetrahedron: Asymmetry* 1992, 3, 1511



(3*R*)-1-O-t-Butyldiphenylsilyl-  
3,4-O-isopropylidene-D-erythrulose

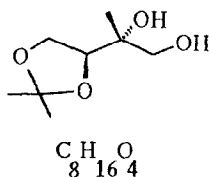
$[\alpha]_D^{23} +18$  (  $c$  3.8,  $CHCl_3$  )

Source of chirality D-isoascorbic acid

Absolute configuration: 3*R*

M Carda, F. González, S. Rodríguez, J.A. Marco\*

*Tetrahedron: Asymmetry* 1992, 3, 1511



(2*R*,3*S*)-2-Methyl-3,4-O-  
isopropylidenebutane-1,2,3,4-tetraol

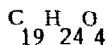
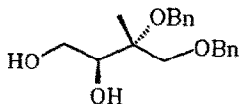
$[\alpha]_D^{23} -6.7$  (  $c$  3,  $CHCl_3$  )

Source of chirality. L-ascorbic acid

Absolute configuration. 2*R*, 3*S* (assignment  
via chemical correlation)

M. Carda, F. González, S. Rodríguez, J.A. Marco\*

*Tetrahedron: Asymmetry* 1992, 3, 1511



(2R,3S)-2-Methyl-1,2-di-O-benzylbutane-1,2,3,4-tetraol

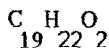
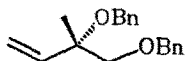
$[\alpha]_D^{23} +6.4$  (c 3.1, CHCl<sub>3</sub>)

Source of chirality: L-ascorbic acid

Absolute configuration: 2R, 3S (assignment via chemical correlation)

M. Carda, F. González, S. Rodríguez, J.A. Marco\*

*Tetrahedron: Asymmetry* 1992, 3, 1511



(2S)-2-Methyl-1,2-di-O-benzylbut-3-ene-1,2-diol

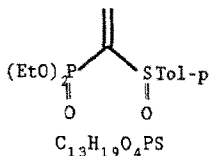
$[\alpha]_D^{23} -7.1$  (c 3.4, CHCl<sub>3</sub>)

Source of chirality: L-ascorbic acid

Absolute configuration: 2S (assignment via chemical correlation)

M. Mikołajczyk and W.H. Midura

*Tetrahedron: Asymmetry* 1992, 3, 1515



(+)-(S)- $\alpha$ -Diethoxyphosphorylvinyl p-tolyl sulfoxide

E.e. > 96% (inferred from e.e. of precursor)

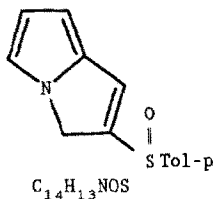
$[\alpha]_D^{+157}$  (c 0.7, acetone)

Source of chirality: synthesis from (-)-menthyl (S)<sub>S</sub>-p-toluenesulfinate

Absolute configuration: (S)<sub>S</sub>

M. Mikołajczyk and W.H. Midura

*Tetrahedron: Asymmetry* 1992, 3, 1515



(-)-p-Tolyl 3H-pyrrolizine-2-sulfoxide

E.e. > 96% (inferred from e.e. of precursor)

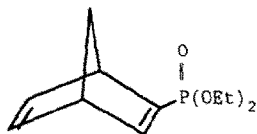
$[\alpha]_D^{+50.8}$  (c 0.7, acetone)

Source of chirality: synthesis from (-)-menthyl (S)<sub>S</sub>-p-toluenesulfinate

Absolute configuration: (S)<sub>S</sub>

M. Mikołajczyk and W.H. Midura

*Tetrahedron: Asymmetry* 1992, 3, 1515



$C_{11}H_{17}O_3P$

Diethyl bicyclo[2.2.1] hept-2,5-diene-phosphonate

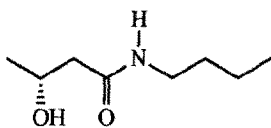
E. e. >96%

$[\alpha]_D^{25} +14$  (c 0.25, acetone)

Source of chirality: asym. synth. (Diels-Alder)

M. J. García, F. Rebolledo and V. Gotor

*Tetrahedron: Asymmetry* 1992, 3, 1519



$C_8H_{17}NO_2$

(*R*)-*N*-Butyl-3-hydroxybutyramide

E.e. = 79% [by  $^1H$ -NMR of the MTPA ester derivative and by comparison with the sample obtained from optically pure ethyl (*S*)-3-hydroxybutyrate]

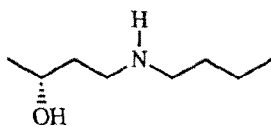
$[\alpha]_D^{22} = -27.5$  (c 0.68,  $CHCl_3$ )

Source of chirality: Enzymatic aminolysis

Absolute configuration: R

M. J. García, F. Rebolledo and V. Gotor

*Tetrahedron: Asymmetry* 1992, 3, 1519



$C_8H_{19}NO$

(*R*)-1-Butylamino-3-hydroxybutane

E.e. = 79% [by  $^1H$ -NMR of the MTPA ester derivative]

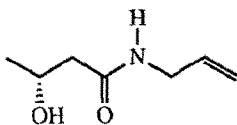
$[\alpha]_D^{22} = +12.2$  (c 0.99,  $CHCl_3$ )

Source of chirality: (*R*)-*N*-Butyl-3-hydroxybutyramide,  
79% e.e.

Absolute configuration: R

M. J. García, F. Rebolledo and V. Gotor

*Tetrahedron: Asymmetry* 1992, 3, 1519



$C_7H_{13}NO_2$

(*R*)-*N*-Allyl-3-hydroxybutyramide

E.e. = 75% [by  $^1H$ -NMR of the MTPA ester derivative and by comparison with the sample obtained from optically pure ethyl (*S*)-3-hydroxybutyrate]

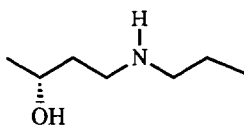
$[\alpha]_D^{22} = -30.6$  (c 0.75,  $CHCl_3$ )

Source of chirality: Enzymatic aminolysis

Absolute configuration: R

M. J. García, F. Rebolledo and V. Gotor

*Tetrahedron: Asymmetry* **1992**, *3*, 1519



C<sub>7</sub>H<sub>17</sub>NO

(*R*)-1-Propylamino-3-hydroxybutane

E.e. = 75% [by <sup>1</sup>H-NMR of the MTPA ester derivative]

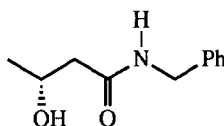
[α]<sub>D</sub><sup>22</sup> = +14.2 (c 0.89, CHCl<sub>3</sub>)

Source of chirality: (*R*)-*N*-Allyl-3-hydroxybutyramide,  
75% e.e.

Absolute configuration: R

M. J. García, F. Rebolledo and V. Gotor

*Tetrahedron: Asymmetry* **1992**, *3*, 1519



C<sub>11</sub>H<sub>15</sub>NO<sub>2</sub>

(*R*)-*N*-Benzyl-3-hydroxybutyramide

E.e. >99% [by <sup>1</sup>H-NMR of the MTPA ester derivative and  
by comparison with the sample obtained from optically pure  
ethyl (*S*)-3-hydroxybutyrate]

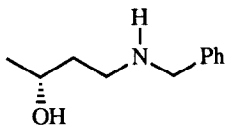
[α]<sub>D</sub><sup>22</sup> = -33.8 (c 0.96, CHCl<sub>3</sub>)

Source of chirality: Enzymatic aminolysis

Absolute configuration: R

M. J. García, F. Rebolledo and V. Gotor

*Tetrahedron: Asymmetry* **1992**, *3*, 1519



C<sub>11</sub>H<sub>17</sub>NO

(*R*)-1-Benzylamino-3-hydroxybutane

E.e. >99% [by <sup>1</sup>H-NMR of the MTPA ester derivative]

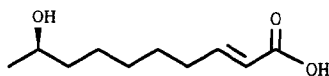
[α]<sub>D</sub><sup>22</sup> = +16.3 (c 0.90, CHCl<sub>3</sub>)

Source of chirality: (*R*)-*N*-Benzyl-3-hydroxybutyramide,  
>99% e.e.

Absolute configuration: R

Jian-Xing Gu, Zu-Yi Li, Guo-Qiang Lin\*

*Tetrahedron: Asymmetry* **1992**, *3*, 1523



C<sub>10</sub>H<sub>18</sub>O<sub>3</sub>

9-hydroxy-(*E*)-2-decenoic acid (9-HDA)

E.e. = 100% [by <sup>1</sup>H NMR in presence of chiral shift reagent]

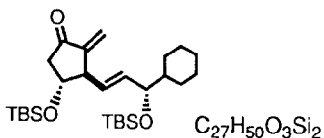
[α]<sub>D</sub> = -5.42 (C 1.4, EtOH)

Source of Chirality: microbial reduction

Absolute Configuration: R

S. Okamoto, S. Katayama, N. Ono and F. Sato

*Tetrahedron: Asymmetry* 1992, 3, 1525



2-Methylene-3-[(*E*)-3'-cyclohexyl-3-(*t*-butyldimethylsilyloxy)-1'-propenyl]-4-(*t*-butyldimethylsilyloxy)cyclopent-1-one

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

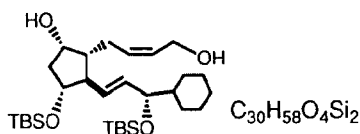
$[\alpha]_D^{33} -27.6$  ( $c = 1.59$ ,  $CHCl_3$ )

Prepared from homochiral

(*R*)-2-(diethylamino)methyl-4-(*t*-butyl dimethylsilyloxy)cyclopent-2-en-1-one

S. Okamoto, S. Katayama, N. Ono and F. Sato

*Tetrahedron: Asymmetry* 1992, 3, 1525



1,2,3,16,17,18,19,20-Octanor-4-hydroxy-15-cyclohexyl prostaglandin  $F_{2\alpha}$  11,15-bis(*t*-butyl-dimethylsilyloxy) ether

Absolute configuration 8*R*,9*S*,11*R*,

12*R*,15*S* (PG-numbering)

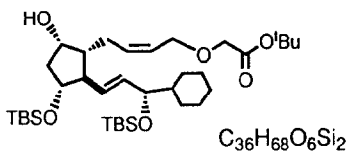
$[\alpha]_D^{26} -5.0$  ( $c = 1.79$ ,  $CHCl_3$ )

Prepared from homochiral

(*R*)-2-(diethylamino)methyl-4-(*t*-butyl dimethylsilyloxy)cyclopent-2-en-1-one

S. Okamoto, S. Katayama, N. Ono and F. Sato

*Tetrahedron: Asymmetry* 1992, 3, 1525



16,17,18,19,20-Pentanor-3-oxo-15-cyclohexyl prostaglandin  $F_{2\alpha}$  *t*-butyl ester 11,15-bis(*t*-butyl-dimethylsilyloxy) ether

Absolute configuration 8*R*,9*S*,11*R*,

12*R*,15*S* (PG-numbering)

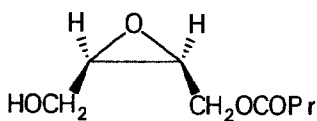
$[\alpha]_D^{26} +11.8$  ( $c = 1.06$ ,  $CHCl_3$ )

Prepared from homochiral

(*R*)-2-(diethylamino)methyl-4-(*t*-butyl dimethylsilyloxy)cyclopent-2-en-1-one

E. Vanttinen and L.T. Kanerva

*Tetrahedron: Asymmetry* 1992, 3, 1529



$C_8H_{14}O_4$   
Z-4-Hydroxy-2,3-epoxybutyl butyrate

E.e. = 93 % (by chiral GLC)

$[\alpha]_D^{25} = -14$  ( $c = 0.8$ ,  $CH_2Cl_2$ )

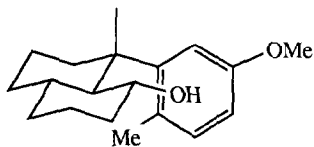
Source of chirality: PPL

catalysed resolution

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

D.P.G. Hamon, J.W. Holman and R.A. Massy-Westropp

*Tetrahedron: Asymmetry* **1992**, *3*, 1533



$$[\alpha]_D^{20} = -35.69 \text{ (c 0.51, EtOH)}$$

Source of chirality: synthesis from podocarpic acid

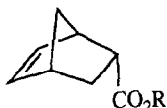


8-(5'-Methoxy-2'-methylphenyl)-  
8-methyldecahydro-1-naphthalenol

Absolute configuration 1R,4aS,8S,8aS  
(by 300MHz n.m.r.)

D.P.G. Hamon, J.W. Holman and R.A. Massy-Westropp

*Tetrahedron: Asymmetry* **1992**, *3*, 1533

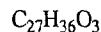


$$[\alpha]_D^{25} = +30.90 \text{ (c 0.61, CHCl}_3\text{)}$$

Source of chirality: asymmetric synthesis

R = 8-(5'-Methoxy-2'-methylphenyl)-8-  
methyldecahydro-1-naphthalenyl

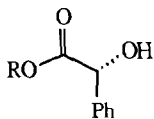
Absolute Configuration 1R,4aS,8'S,8a'S,2R  
(by correlation with an optically active sample)



8'-(5''-Methoxy-2''-methylphenyl)-8'-methyldecahydronaphthalen-1'-yl  
endo-2-bicyclo[2.2.1]hept-5-ene carboxylate

D.P.G. Hamon, J.W. Holman and R.A. Massy-Westropp

*Tetrahedron: Asymmetry* **1992**, *3*, 1533

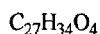


$$[\alpha]_D^{25} = -8.0 \text{ (c 0.25, CHCl}_3\text{)}$$

Source of chirality: asymmetric synthesis

R = 8-(5'-Methoxy-2'-methylphenyl)-8-  
methyldecahydro-1-naphthalenyl

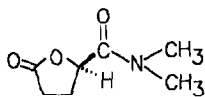
Absolute Configuration 1R,4aS,8'S,8a'S,2R  
(by correlation with (R)-2([N-isopropyl]-  
amino)-1-phenylethanol)



8'-(5''-Methoxy-2''-methylphenyl)-8'-methyldecahydronaphthalen-1'-yl  
2-hydroxyphenylacetate

J. Lehmann and B. Pieper

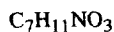
*Tetrahedron: Asymmetry* **1992**, *3*, 1537



$$[\alpha]_D^{25} = -35.9 \text{ (c=1, CH}_3\text{OH)}$$

Source of chirality: D-glutamic acid

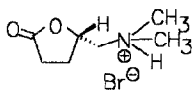
Absolute configuration: 2R



(R)-(-)-tetrahydro-*N,N*-dimethyl-5-oxo-2-furancarboxamid

J. Lehmann and B. Pieper

*Tetrahedron: Asymmetry* **1992**, *3*, 1537



E.e. = >99% (nmr with (S)-(+)-1-(9-anthryl)-2,2,2-trifluoroethanol)

$[\alpha]_D^{23} = +62.7$  ( $c=1$ ,  $\text{CH}_3\text{OH}$ )

Source of chirality: L-glutamic acid

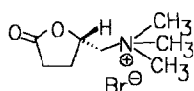
Absolute configuration: 5S

$\text{C}_7\text{H}_{14}\text{BrNO}_2$

(S)-(+)-5-dimethylaminomethyl-4,5-dihydro-2(3H)furanone, hydrobromide

J. Lehmann and B. Pieper

*Tetrahedron: Asymmetry* **1992**, *3*, 1537



$[\alpha]_D^{20} = +49.4$  ( $c=1$ ,  $\text{CH}_3\text{OH}$ )

Source of chirality: L-glutamic acid

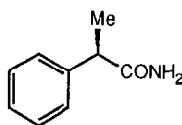
Absolute configuration: 5S

$\text{C}_8\text{H}_{16}\text{BrNO}_2$

(S)-(+)-5-dimethylaminomethyl-4,5-dihydro-2(3H)furanone, methobromide

M.A. Cohen, J.S. Parratt, and N.J. Turner

*Tetrahedron: Asymmetry* **1992**, *3*, 1543



$\text{C}_9\text{H}_{11}\text{NO}$

(R)-2-phenylpropionamide

E.e. = 78%

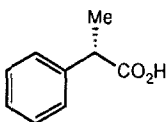
$[\alpha]_D^{23} = -55.0$  ( $c = 1.1$ ,  $\text{CHCl}_3$ )

Source of chirality: enzyme nitrile hydrolysis

Absolute configuration: 2R

M.A. Cohen, J.S. Parratt, and N.J. Turner

*Tetrahedron: Asymmetry* **1992**, *3*, 1543



$\text{C}_9\text{H}_{10}\text{O}_2$

(S)-2-phenylpropionic acid

E.e. = 65%

$[\alpha]_D^{23} = +43.0$  ( $c = 1.98$ ,  $\text{CHCl}_3$ )

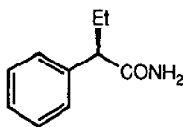
Source of chirality: enzyme nitrile hydrolysis

Absolute configuration: 2S



M.A. Cohen, J.S. Parratt, and N.J. Turner

*Tetrahedron: Asymmetry* 1992, 3, 1543



C<sub>10</sub>H<sub>13</sub>NO

(*R*)-2-phenylbutyramide

E.e. = >98%

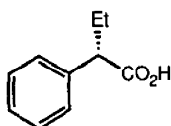
[ $\alpha$ ]<sub>D</sub><sup>26</sup> = -79.5 (c = 1, CHCl<sub>3</sub>)

Source of chirality: enzyme nitrile hydrolysis

Absolute configuration: 2*R*

M.A. Cohen, J.S. Parratt, and N.J. Turner

*Tetrahedron: Asymmetry* 1992, 3, 1543



C<sub>10</sub>H<sub>12</sub>O<sub>2</sub>

(*S*)-2-phenylbutanoic acid

E.e. = >98%

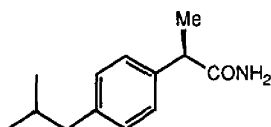
[ $\alpha$ ]<sub>D</sub><sup>23</sup> = +104.0 (c = 1.2, toluene)

Source of chirality: enzyme nitrile hydrolysis

Absolute configuration: 2*S*

M.A. Cohen, J.S. Parratt, and N.J. Turner

*Tetrahedron: Asymmetry* 1992, 3, 1543



C<sub>13</sub>H<sub>19</sub>NO

(*R*)-2-(4'-*iso*-butylphenyl)propionamide

E.e. = 26%

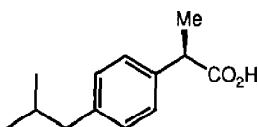
[ $\alpha$ ]<sub>D</sub><sup>28</sup> = -9.1 (c = 1.44, CHCl<sub>3</sub>)

Source of chirality: enzyme nitrile hydrolysis

Absolute configuration: 2*R*

M.A. Cohen, J.S. Parratt, and N.J. Turner

*Tetrahedron: Asymmetry* 1992, 3, 1543



C<sub>13</sub>H<sub>18</sub>O<sub>2</sub>

(*R*)-2-(4'-*iso*-butylphenyl)propionic acid

E.e. = 35%

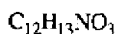
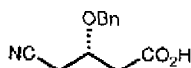
[ $\alpha$ ]<sub>D</sub><sup>29</sup> = -14.7 (c = 1.28, EtOH)

Source of chirality: enzyme nitrile hydrolysis

Absolute configuration: 2*R*

J.A. Crosby, J.S. Parratt, and N.J. Turner

*Tetrahedron. Asymmetry* **1992**, *3*, 1547



(S)-3-O-(Benzyl)-4-cyanobutanoic acid

E.e. = 83%

$[\alpha]_D^{27} = +9.6$  (c = 3.4,  $CHCl_3$ )

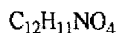
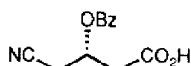
Source of chirality: enzyme nitrile hydrolysis

Absolute configuration: 3S

(assigned by comparison with authentic sample prepared from (S)-(-)-methyl-3-hydroxy-4-bromobutanoic acid

J.A. Crosby, J.S. Parratt, and N.J. Turner

*Tetrahedron: Asymmetry* **1992**, *3*, 1547



(S)-3-O-(Benzoyl)-4-cyanobutanoic acid

E.e. = 84%

$[\alpha]_D^{24} = +32.4$  (c = 1.08,  $CHCl_3$ )

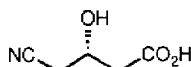
Source of chirality: enzyme nitrile hydrolysis

Absolute configuration: 3S

(assigned by comparison with literature data)

J.A. Crosby, J.S. Parratt, and N.J. Turner

*Tetrahedron: Asymmetry* **1992**, *3*, 1547



(S)-3-Hydroxy-4-cyanobutanoic acid

E.e. = 22%

$[\alpha]_D = 0.0$  (c = 1.0, EtOH)

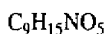
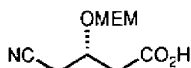
Source of chirality: enzyme nitrile hydrolysis

Absolute configuration: 3S

(assigned by comparison with literature data)

J.A. Crosby, J.S. Parratt, and N.J. Turner

*Tetrahedron: Asymmetry* **1992**, *3*, 1547



(S)-3-O-(methoxyethoxymethyl)-4-cyanobutanoic acid

E.e. = 61%

$[\alpha]_D^{25} = -2.8$  (c = 1.21,  $CHCl_3$ )

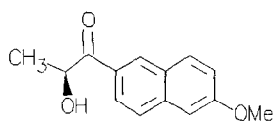
Source of chirality: enzyme nitrile hydrolysis

Absolute configuration: 3S

(assigned by comparison with literature data)

J. D. Brown

*Tetrahedron: Asymmetry* **1992**, *3*, 1551



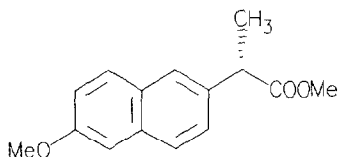
97% ee [by HPLC of 3,5-dinitrobenzoate]  
source of chirality (S)-Lactic acid  
 $[\alpha]_D^{23} -96$  (c 1.5, CHCl<sub>3</sub>)

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

(S)-2-Hydroxy-1-(6-methoxy-2-naphthyl)-1-propanone

J. D. Brown

*Tetrahedron: Asymmetry* **1992**, *3*, 1551



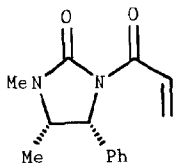
97% ee by chiral phase HPLC  
source of chirality (S)-Lactic acid  
 $[\alpha]_D^{23} +76.5$

C<sub>15</sub>H<sub>16</sub>O<sub>3</sub>

Methyl (S)-2-(6-methoxy-2-naphthyl)propionate

K.N.Jensen and G.H.P.Roos

*Tetrahedron: Asymmetry* **1992**, *3*, 1553



E.e. = 100%

$[\alpha]_D = -121.6$  (c 1.028, CHCl<sub>3</sub>)

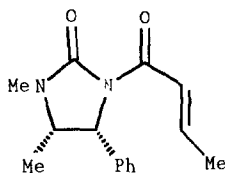
Source of chirality: (1R,2S)-(-)-Ephedrine

C<sub>14</sub>H<sub>16</sub>N<sub>2</sub>O<sub>2</sub>

(4R,5S)-1,5-dimethyl-4-phenyl-3-prop-2'-enoylimidazolidin-2-one

K.N.Jensen and G.H.P.Roos

*Tetrahedron: Asymmetry* **1992**, *3*, 1553



E.e. = 100%

$[\alpha]_D = -104.3$  (c 0.67, CHCl<sub>3</sub>)

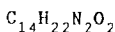
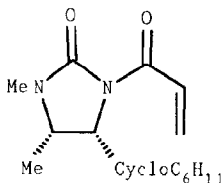
Source of chirality: (1R,2S)-(-)-Ephedrine

C<sub>15</sub>H<sub>18</sub>N<sub>2</sub>O<sub>2</sub>

(4R,5S)-1,5-dimethyl-4-phenyl-3-but-2'-enoylimidazolidin-2-one

K.N.Jensen and G.H.P.Roos

*Tetrahedron: Asymmetry* **1992**, *3*, 1553



(4R,5S)-4-cyclohexyl-1,5-dimethyl-3-prop-2'-enylimidazolidin-2-one

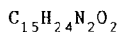
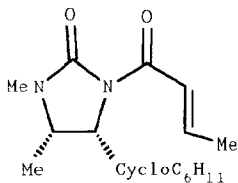
E.e. = 100%

$[\alpha]_D = -43.64$  (c 0.97,  $CHCl_3$ )

Source of chirality: (1R,2S)-(-)-Ephedrine

K.N.Jensen and G.H.P.Roos

*Tetrahedron: Asymmetry* **1992**, *3*, 1553



(4R,5S)-4-cyclohexyl-1,5-dimethyl-3-but-2'-enylimidazolidin-2-one

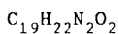
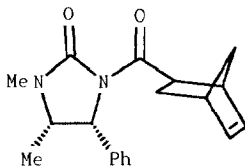
E.e. = 100%

$[\alpha]_D = -52.89$  (c 1.68,  $CHCl_3$ )

Source of chirality: (1R,2S)-(-)-Ephedrine

K.N.Jensen and G.H.P.Roos

*Tetrahedron: Asymmetry* **1992**, *3*, 1553



(4R,5S)-3-((3'R,4'R,6'R)bicyclo[2.2.1]heptene-4'-carbonyl)-1,5-dimethyl-4-phenylimidazolidin-2-one

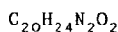
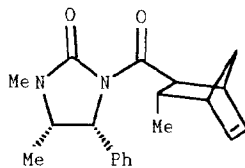
E.e.  $\geq$  96% (by n.m.r.)

$[\alpha]_D = -221.56$  (c 1.90,  $CHCl_3$ )

Source of chirality: Natural and asymm. synthesis  
(D-A cycloaddition)

K.N.Jensen and G.H.P.Roos

*Tetrahedron: Asymmetry* **1992**, *3*, 1553



(4R,5S)-3-((3'R,4'R,5'S,6'S)-5'-methylbicyclo[2.2.1]heptene-4'-carbonyl)-1,5-dimethyl-4-phenylimidazolidin-2-one

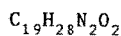
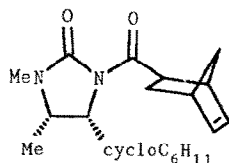
E.e.  $\geq$  99% (by n.m.r.)

$[\alpha]_D = -222.08$  (c 0.40,  $CHCl_3$ )

Source of chirality: Natural and asymm. synthesis  
(D-A cycloaddition)

K. N. Jensen and G. H. P. Roos

*Tetrahedron: Asymmetry* 1992, 3, 1553



(4R,5S)-3-((3'R,4'R,6'R)-bicyclo[2.2.1]heptene-4'-carbonyl)-4-cyclohexyl-1,5-dimethylimidazolidin-2-one

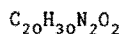
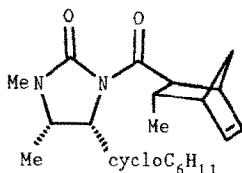
ee. 100% (by n.m.r.)

$[\alpha]_D = -77.84$  (c 1.07,  $CHCl_3$ )

Source of chirality: Natural and asymm.synth  
(D-A cycloaddition)

K. N. Jensen and G. H. P. Roos

*Tetrahedron: Asymmetry* 1992, 3, 1553



(4R,5S)-3-((3'R,4'R,5'S,6'S)-5'-methylbicyclo[2.2.1]heptene-4'-carbonyl)-4-cyclohexyl-1,5-dimethylimidazolidin-2-one

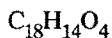
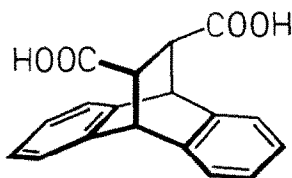
E.e. 100% (by n.m.r.)

$[\alpha]_D = -113.36$  (c 1.27,  $CHCl_3$ )

Source of chirality: Natural and asymm.synth  
(D-A cycloaddition)

I. Csöreg, O. Gallardo, E. Weber, S. Finge, C. Reutel

*Tetrahedron: Asymmetry* 1992, 3, 1555



9,10-Dihydro-9,10-ethanoanthracen-11,12-dicarboxylic acid

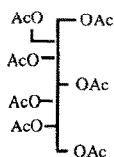
E. e.  $\geq 99\%$  [by comparison to lit. value]

$[\alpha]_D^{20} = -15.3$  (c = 2, dioxane)

Source of chirality: optical resolution by brucine  
Absolute configuration: 11S,12S  
M. p. 220 °C

A. Saba\*, V. Adovasio and M. Nardelli

*Tetrahedron: Asymmetry* 1992, 3, 1573

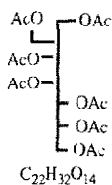


2-Deoxy-2-hydroxymethyl-L-gluco-heptitol heptaacetate

$[\alpha]_D^{25} = -23$  (c 0.28,  $CHCl_3$ )

Source of chirality: D-(-)arabiose, (+)-menthol  
Absolute configuration: 3S, 4R, 5S, 6S

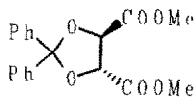
A. Saba\*, V. Adovasio and M. Nardelli

C<sub>22</sub>H<sub>32</sub>O<sub>14</sub>  
2-Deoxy-2-hydroxymethyl-D-*manno*-heptulose heptaacetate

$$[\alpha]_D^{25} = +29 \text{ (c 0.61, CHCl}_3\text{)}$$

Source of chirality: L-(+)-arabinose, (+)-menthol and (-)-menthol

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

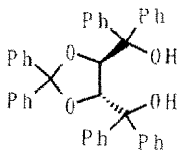
J. Irurre, C. Alonso-Alija, J.F. Piniella,  
A. Alvarez-LarenaC<sub>15</sub>H<sub>18</sub>O<sub>6</sub>(4R,5R)-2,2-Diphenyl-4,5-  
dimethoxycarbonyl-1,3-dioxolane

E.e. ≥ 98% (from asymmetric synthesis results)

$$[\alpha]_D^{20} = +54.2 \text{ (c 0.964, CHCl}_3\text{)}$$

Source of chirality: (+)-dimethyl-L-tartrate

Absolute configuration 4R,5R

J. Irurre, C. Alonso-Alija, J.F. Piniella,  
A. Alvarez-LarenaC<sub>41</sub>H<sub>34</sub>O<sub>4</sub>(4R,5R)- $\alpha,\alpha',\alpha',\alpha'$ -2,2-Hexaphenyl-  
4,5-dimethanol-1,3-dioxolane

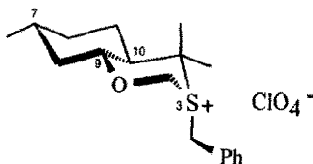
E.e. ≥ 98% (from asymmetric synthesis results)

$$[\alpha]_D^{20} = +187.7 \text{ (c 0.505, CHCl}_3\text{)}$$

Source of chirality: (+)-dimethyl-L-tartrate

Absolute configuration 4R,5R

A. Solladié-Cavallo, A. Adib, M. Schmitt, J. Fischer, A. DeCian

Hexahydro-4,4,7-trimethyl-3-benzyl-1,3-benzoxathianium  
perchlorateSource of chirality : (+) pulegone  
Absolute configuration : 3S7R9R10S  
determined from 2D <sup>1</sup>H NMR and X-ray  
[ $\alpha$ ]<sub>D</sub> = -172 (1.02, acetone)  
(the benzyl group on S is axial)