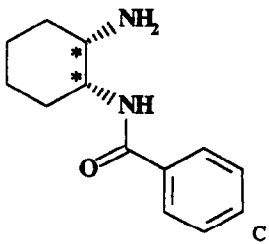
W.H. Schlichter and A.W. Frahm

Tetrahedron: Asymmetry **1992**, *3*, 329



$C_{13}H_{18}N_2O$

(1S,2R)-2-Benzamido-cyclohexanamin

E.e. = > 99 % (det. by Mosher-derivatives)

α_D^{22} = +20.2 (c = 1.08 g/100ml in EtOH)

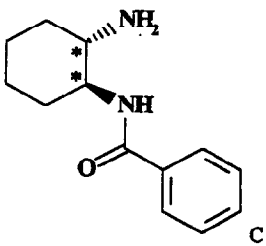
mp. = 142-145 °C

Source of chirality: 1S-Methyl-benzylamine

Absolute configuration: 1S,2R

W.H. Schlichter and A.W. Frahm

Tetrahedron: Asymmetry **1992**, *3*, 329



$C_{13}H_{18}N_2O$

(1S,2S)-2-Benzamido-cyclohexanamin

E.e. = > 99 % (det. by Mosher-derivatives)

α_D^{22} = +54.3 (c = 0.53 g/100ml in EtOH)

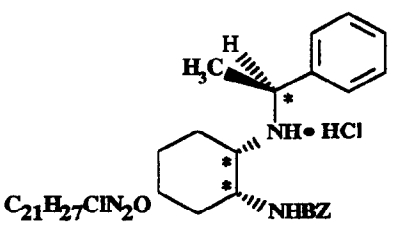
mp. = 187-189 °C

Source of chirality: 1S-Methyl-benzylamine

Absolute configuration: 1S,2S

W.H. Schlichter and A.W. Frahm

Tetrahedron: Asymmetry **1992**, *3*, 329



$C_{21}H_{27}ClN_2O$

(1S,2R)-2-Benzamido-(N-1'S-Methyl-benzylamino)-cyclohexanamin-hydrochlorid

E.e. = > 99% (det. by Mosher-derivatives)

α_D^{22} = -70.5 (c = 0.62 g/100ml in EtOH)

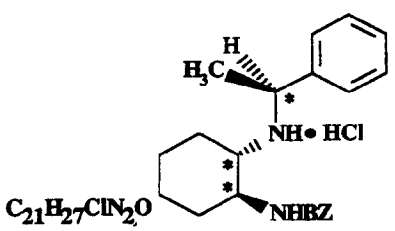
mp. = 188-191 °C

Source of chirality: 1S-Methyl-benzylamine

Absolute configuration: 1S,2R,1'S

W.H. Schlichter and A.W. Frahm

Tetrahedron: Asymmetry **1992**, *3*, 329



$C_{21}H_{27}ClN_2O$

(1S,2S)-2-Benzamido-(N-1'S-Methyl-benzylamino)-cyclohexanamin-hydrochlorid

E.e. = > 99% (det. by Mosher-derivatives)

α_D^{22} = -7.0 (c = 0.52 g/100ml in EtOH)

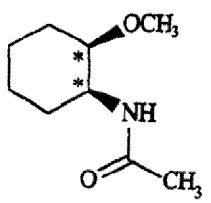
mp. = 190-193 °C

Source of chirality: 1S-Methyl-benzylamine

Absolute configuration: 1S,2S,1'S

W.H. Schlichter and A.W. Frahm

Tetrahedron: Asymmetry **1992,** *3*, 329



$C_9H_{17}NO_2$

(1S,2R)-2-Methoxy-N-Acetyl-cyclohexanamin

E.e. = >99 % (det. by Mosher-derivatives)

α_D^{22} =-79.6 (c =1.0 g/100ml in EtOH)

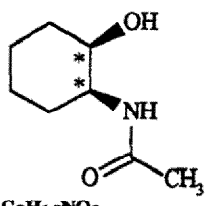
mp. =99-101 °C

Source of chirality:1S-Methyl-benzylamine

Absolute configuration:1S,2R

W.H. Schlichter and A.W. Frahm

Tetrahedron: Asymmetry **1992,** *3*, 329



$C_8H_{15}NO_2$

(1S,2R)-2-Hydroxy-N-Acetyl-cyclohexanamin

E.e. = >99 % (det. by Mosher-derivatives)

α_D^{22} =-31.6 (c =0.48 g/100ml in EtOH)

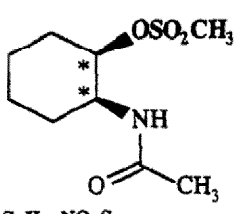
mp. = 126-127 °C

Source of chirality:1S-Methyl-benzylamine

Absolute configuration:1S,2R

W.H. Schlichter and A.W. Frahm

Tetrahedron: Asymmetry **1992,** *3*, 329



$C_9H_{17}NO_4S$

(1S,2R)-2-Methansulfonato-N-Acetyl-cyclohexanamin

E.e. = >99 % (det. by Mosher-derivatives)

α_D^{22} =-98.1 (c =0.42 g/100ml in EtOH)

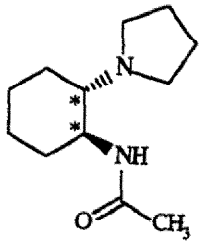
mp. = 126-128 °C

Source of chirality:1S-Methyl-benzylamine

Absolute configuration:1S,2R

W.H. Schlichter and A.W. Frahm

Tetrahedron: Asymmetry **1992,** *3*, 329



$C_{12}H_{22}N_2O$

(1S,2S)-2-(1-Pyrrolidino)-N-Acetyl-cyclohexanamin

E.e. = >99 % (det. by Mosher-derivatives)

α_D^{22} =+26.7 (c =0.50 g/100ml in EtOH)

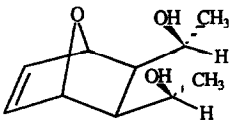
mp. =113-115 °C

Source of chirality:1S-Methyl-benzylamine

Absolute configuration:1S,2S

R. Bloch, C. Brillet

Tetrahedron: Asymmetry **1992,** *3*, 333



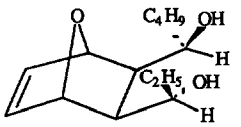
$C_{10}H_{16}O_3$

2-(1'-Hydroxyethyl)-3-(1"-hydroxyethyl)
-7-oxabicyclo[2.2.1]hept-5-ene

$[\alpha]_D^{20}$ = -42 (c 1, $CHCl_3$)
Source of chirality : from a precursor obtained by enzymatic hydrolysis
Absolute configuration :1R,2R,3S,4S,1'R,1"R

R. Bloch, C. Brillet

Tetrahedron: Asymmetry **1992,** *3*, 333



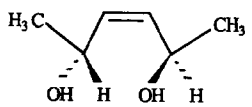
$C_{14}H_{24}O_3$

2-(1'-Hydroxypentyl)-3-(1"-hydroxyethyl)
-7-oxabicyclo[2.2.1]hept-5-ene

$[\alpha]_D^{20}$ =12 (c0.8, $CHCl_3$)
Source of chirality : from a precursor obtained by enzymatic hydrolysis
Absolute configuration :1R,2R,3S,4S,1'R,1"S

R. Bloch, C. Brillet

Tetrahedron: Asymmetry **1992,** *3*, 333



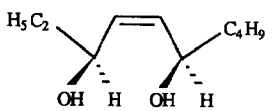
$C_6H_{12}O_2$

3-Hexen-2,5-diol

E.e > 95%
$[\alpha]_D^{20}$ = -62 (c 1, $CHCl_3$)
Source of chirality : from a precursor obtained by enzymatic hydrolysis
Absolute configuration : 2R,5R

R. Bloch, C. Brillet

Tetrahedron: Asymmetry **1992,** *3*, 333



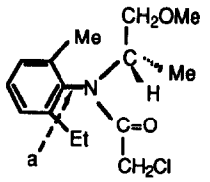
$C_{10}H_{20}O_2$

4-Decen-3,6-diol

E.e > 95% (^{1}H NMR with $Eu(hfc)_3$)
$[\alpha]_D^{20}$ = 14 (c 0.8, $CHCl_3$)
Source of chirality : from a precursor obtained by enzymatic hydrolysis
Absolute configuration : 3S,6R

B. T. Cho and Y. S. Chun

Tetrahedron: Asymmetry **1992,** *3*, 337



a = atropisomerism

$C_{15}H_{22}ClNO_2$

2-Chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl)acetamide

E.e. = 62 % [by optical rotation]

$[\alpha]_D^{22}$ = - 5.61 (*c* 2.1, hexane)

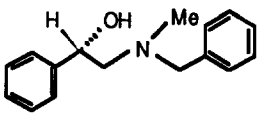
Source of chirality: asymmetric reduction with a chiral hydride (Itsuno's reagent)

Absolute configuration: aRS. S

(assigned on the basis of α_D)

B. T. Cho and Y. S. Chun

Tetrahedron: Asymmetry **1992,** *3*, 341



$C_{16}H_{19}NO$

2-(N-Benzyl-N-methyl)-amino-1-phenylethanol

E.e. = 56 % [by HPLC on Daicel Chiralcel OD] (hexane / 2-propanol 9 : 1 V / V)

$[\alpha]_D^{22}$ = 29.33 (*c* 2.36, EtOH)

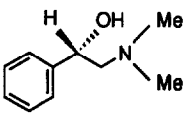
Source of chirality: asymmetric reduction with a chiral borohydride (K glucoride)

Absolute configuration: S

(assigned on the basis of α_D)

B. T. Cho and Y. S. Chun

Tetrahedron: Asymmetry **1992,** *3*, 341



$C_{10}H_{15}NO$

2-(Dimethylamino)-1-phenylethanol

E.e. = 58 % [by optical rotation]

$[\alpha]_D^{22}$ = 29.24 (*c* 1.19, MeOH)

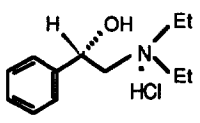
Source of chirality: asymmetric reduction with a chiral borohydride (K glucoride)

Absolute configuration: S

(assigned on the basis of α_D)

B. T. Cho and Y. S. Chun

Tetrahedron: Asymmetry **1992,** *3*, 341



$C_{12}H_{20}ClNO$

2-(Diethylamino)-1-phenyl-ethanol hydrochloride

E.e. = 73 % [by optical rotation]

$[\alpha]_D^{22}$ = 47.41 (*c* 5.02, H_2O)

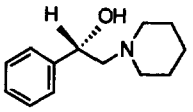
Source of chirality: asymmetric reduction with a chiral borohydride (K glucoride)

Absolute configuration: S

(assigned on the basis of α_D)

B. T. Cho and Y. S. Chun

Tetrahedron: Asymmetry **1992,** *3*, 341



$C_{13}H_{19}NO$

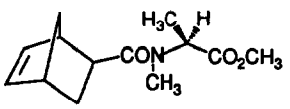
2-Piperido-1-phenylethanol

E.e. = 60 % [by optical rotation]
$[\alpha]_D^{22} = 31.86$ (*c* 1.13, EtOH)

Source of chirality: asymmetric reduction with a chiral borohydride (K glucoride)
Absolute configuration: S
(assigned on the basis of α_D)

A. Avenoza, María P. Bueno, Carlos Cativiela, José A. Mayoral

Tetrahedron: Asymmetry **1992,** *3*, 343



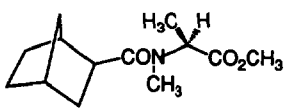
$C_{13}H_{19}NO_3$

N-[(1R, 2S, 4R) bicyclo [2.2.1] hept-5-ene-2-carbonyl]-N-methyl-(S)-alanine methyl ester

Absolute configuration: 1R, 2S, 4R
(assigned by comparing with the (1S,2S,4R)-bicyclo[2.2.1]heptane-2-carboxylic acid)
% d.e. = 89%
$[\alpha]_D^{25}$ (c 0.85, $CHCl_3$) = -19,2 ±0.2

A. Avenoza, María P. Bueno, Carlos Cativiela, José A. Mayoral

Tetrahedron: Asymmetry **1992,** *3*, 343



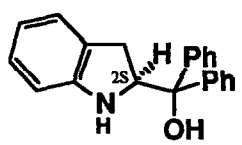
$C_{13}H_{19}NO_3$

N-[(1S, 2S, 4R) bicyclo [2.2.1] heptane-2-carbonyl]-N-methyl-(S)-alanine methyl ester

Absolute configuration: 1S, 2S, 4R
(assigned by comparing with the (1S,2S,4R)-bicyclo[2.2.1]heptane-2-carboxylic acid)
% d.e. = 89%
$[\alpha]_D^{25}$ (0.85, MeOH) = -15.5 ±0.2

J. Martens*, Ch. Dauelsberg, W. Behnen and S. Wallbaum

Tetrahedron: Asymmetry **1992,** *3*, 347

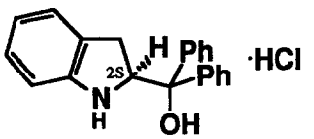


$C_{21}H_{19}NO$

(*S*)-α,α-Diphenyl-(indolin-2-yl)methanol

E.e. under investigation
$[\alpha]_D^{20} = -105.5$ (c = 0.38, C_2H_5OH)
Source of chirality: (*S*)-2-indoline carboxylic acid
Absolute configuration S

J. Martens*, Ch. Dauelsberg, W. Behnen and S. Wallbaum | *Tetrahedron: Asymmetry* **1992**, *3*, 347

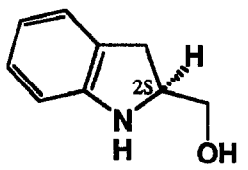


$C_{21}H_{19}NO \cdot HCl$

E.e. under investigation
$[\alpha]_D^{20} = -30.3$ (c = 0.55, DMSO)
Source of chirality: (*S*)-2-indoline carboxylic acid
Absolute configuration S

(*S*)-α,α-Diphenyl-(indolin-2-yl)methanol·HCl

J. Martens*, Ch. Dauelsberg, W. Behnen and S. Wallbaum | *Tetrahedron: Asymmetry* **1992**, *3*, 347

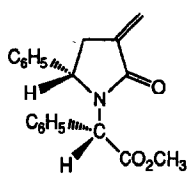


$C_9H_{11}NO$

E.e. under investigation
$[\alpha]_D^{20} = +34.1$ (c = 1.83, $CHCl_3$)
Source of chirality: (*S*)-2-indoline carboxylic acid
Absolute configuration S

(*S*)-Indolin-2-yl methanol

Y.A. Dembélé, C. Belaud, P. Hitchcock and J. Villiéras | *Tetrahedron: Asymmetry* **1992**, *3*, 351

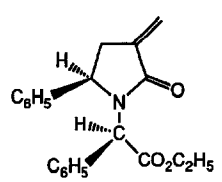


$C_{20}H_{19}NO_3$, M= 321.4

E.e.≥95% (^{1}H N.M.R.)
$[\alpha]_D^{26} = +25$ (c 2.00, $CHCl_3$)
Source of chirality : commercial available (S)-2-amino-2-phenylacetic acid
Absolute configuration 5S, 6S (assignated by X-ray of the crystallized racemic diastereoisomer)

Methyl [3-methylene-5-(S)-phenylpyrrolidinone-1-yl]-(S)-2-phenylacetate

Y.A. Dembélé, C. Belaud, P. Hitchcock and J. Villiéras | *Tetrahedron: Asymmetry* **1992**, *3*, 351



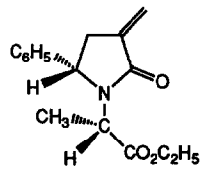
$C_{21}H_{21}NO_3$, M=335.4

E.e.≥95% (^{1}H N.M.R.)
$[\alpha]_D^{26} = -29$ (c 2.10, $CHCl_3$)
Source of chirality : commercial available (R)-2-amino-2-phenylacetic acid
Absolute configuration 5R, 6R (assignated by X-ray of the crystallized racemic diastereoisomer)

Ethyl [3-methylene-5-(R)-phenylpyrrolidinone-1-yl]-(R)-2-phenylacetate

Y.A. Dembélé, C. Belaud, P. Hitchcock and J. Villiéras

Tetrahedron: Asymmetry **1992,** *3*, 351



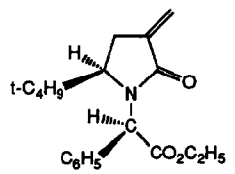
E.e.≥95% (^{1}H N.M.R.)
$[\alpha]_D^{26}$ = +24 (c 1.90, $CHCl_3$)
Source of chirality : commercial available (S)-alanine
Absolute configuration 5S, 6S (assignated by X-ray of the crystallized racemic diastereoisomer)

$C_{16}H_{19}NO_3$, M=273.3

Ethyl [3-methylene-5-(S)-phenylpyrrolidinone-1-yl]-(S)-2-propionate

Y.A. Dembélé, C. Belaud, P. Hitchcock and J. Villiéras

Tetrahedron: Asymmetry **1992,** *3*, 351



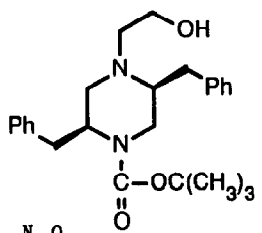
E.e.≥95% (^{1}H N.M.R.)
$[\alpha]_D^{26}$ = -25 (c 1.90, $CHCl_3$)
Source of chirality : commercial available (R)-2-amino-2-phenylacetic acid
Absolute configuration 5R, 6R (assignated by X-ray of the crystallized racemic diastereoisomer)

$C_{19}H_{25}NO_3$, M=315.4

Ethyl [3-methylene-5-(R)-tert-butylpyrrolidinone-1-yl]-(R)-2-phenylacetate

K. Soai, A. Oshio, and H. Yoneyama

Tetrahedron: Asymmetry **1992,** *3*, 359



$[\alpha]^{25}_D$ = +25.8 (c 5.49, MeOH)
Source of chirality: (S)-phenylalanine (natural)

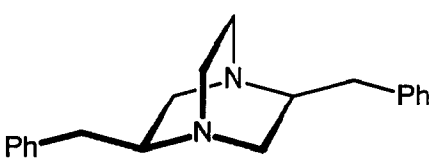
$C_{25}H_{34}N_2O_3$

Absolute configuration 2S,5S

2,5-Bis(phenylmethyl)-1-tert-butoxycarbonyl-4-(2-hydroxyethyl)piperazine

K. Soai, A. Oshio, and H. Yoneyama

Tetrahedron: Asymmetry **1992,** *3*, 359



$[\alpha]^{24}_D$ = +104.11 (c 4.06, MeOH)
Source of chirality: (S)-phenylalanine (natural)

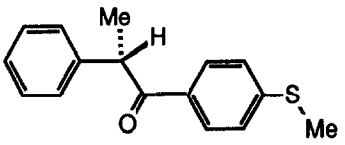
$C_{20}H_{24}N_2$

Absolute configuration 2S,5S

2,5-Bis(phenylmethyl)-1,4-diazabicyclo[2.2.2]octane

C. Garcia and A. Collet

Tetrahedron: Asymmetry **1992,** *3*, 361

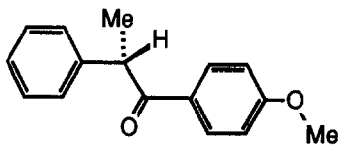


$C_{16}H_{16}OS$

$[\alpha]_D^{25}$ +67 ($CHCl_3$, c = 0.405)
mp 85 °C
E.e. 98% (DSC method)
Source of chirality : cocrystallization with a chiral analogue
Absolute configuration : *S*-(+) inferred from circular dichroism and cocrystallization with an analogue of known configuration

C. Garcia and A. Collet

Tetrahedron: Asymmetry **1992,** *3*, 361

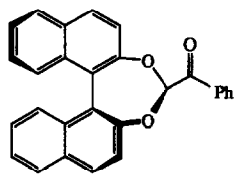


$C_{16}H_{16}O_2$

$[\alpha]_D^{25}$ +125 ($CHCl_3$, c = 0.46)
mp 78 °C
E.e. >99% (DSC method)
Source of chirality : preferential crystallization method
Absolute configuration : *S*-(+) inferred from circular dichroism and chemical correlation to *S*-(-)-2-phenethyl alcohol

P. Maglioli, G. Delogu, O. De Lucchi and G. Valle

Tetrahedron: Asymmetry **1992,** *3*, 365



$C_{28}H_{18}O_3$
Methanone, dinaphtho[2,1-*d*:1',2'-*f*][1,3]dioxepin-4-ylphenyl-

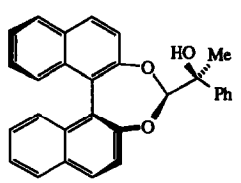
E.e.= ca.100%
$[a]_D^{25}$= +273.3 (c 1,THF)

Source of chirality: obtained from optically pure binaphthol

Absolute configuration of the binaphthyl residue S

P. Maglioli, G. Delogu, O. De Lucchi and G. Valle

Tetrahedron: Asymmetry **1992,** *3*, 365



$C_{29}H_{22}O_3$
Dinaphtho[2,1-*d*:1',2'-*f*][1,3]dioxepin-4-methanol, α-methyl-α-phenyl-

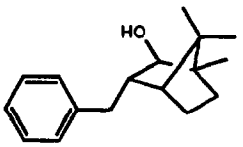
E.e.= ca.100%
$[a]_D^{25}$= +390.8 (c 1,THF)

Source of chirality: obtained from optically pure binaphthol

Absolute configuration of the binaphthyl residue S, of C-1 S (by X-ray)

Byung-Ick Seo, Il-Hwan Suh, William P. Jensen, David E. Lewis, L. Kevin Wall and Robert A. Jacobson

Tetrahedron: Asymmetry **1992**, *3*, 367



$C_{17}H_{24}O$

3-(phenylmethyl)-1,7,7-trimeythylbicyclo[2.2.1]heptan-2-ol

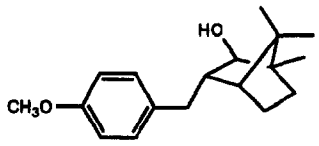
$[\alpha]_D^{25}$ = + 29.8 (c 10.8 , $CHCl_3$)

Source of chirality: natural (+)-camphor

Absolute Configuration: 1R,2R,3S,4R

Byung-Ick Seo, Il-Hwan Suh, William P. Jensen, David E. Lewis, L. Kevin Wall and Robert A. Jacobson

Tetrahedron: Asymmetry **1992**, *3*, 367



$C_{18}H_{26}O_2$

3-[(4-methoxyphenyl)methyl]-1,7,7-trimeythylbicyclo[2.2.1]heptan-2-ol

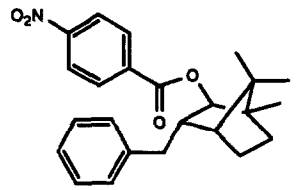
$[\alpha]_D^{25}$ = + 35.0 (c 14.2, $CHCl_3$)

Source of chirality: natural (+)-camphor

Absolute Configuration: 1R,2R,3S,4R

Byung-Ick Seo, Il-Hwan Suh, William P. Jensen, David E. Lewis, L. Kevin Wall and Robert A. Jacobson

Tetrahedron: Asymmetry **1992**, *3*, 367



$C_{24}H_{27}NO_4$

3-(phenylmethyl)-1,7,7-trimeythylbicyclo[2.2.1]hept-2-yl 4-nitrobenzoate

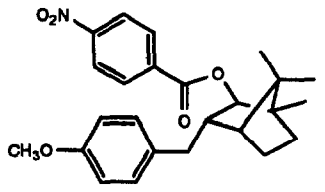
$[\alpha]_D^{25}$ = - 30.5 (c 10.3, $CHCl_3$)

Source of chirality: natural (+)-camphor

Absolute Configuration: 1R,2R,3S,4R

Byung-Ick Seo, Il-Hwan Suh, William P. Jensen, David E. Lewis, L. Kevin Wall and Robert A. Jacobson

Tetrahedron: Asymmetry **1992**, *3*, 367



$C_{25}H_{29}NO_5$

3-[(4-methoxyphenyl)methyl]-1,7,7-trimeythylbicyclo[2.2.1]hept-2-yl 4-nitrobenzoate

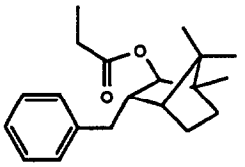
$[\alpha]_D^{25}$ = - 22.6 (c 6.5, $CHCl_3$)

Source of chirality: natural (+)-camphor

Absolute Configuration: 1R,2R,3S,4R

Byung-Ick Seo, Il-Hwan Suh, William P. Jensen, David E. Lewis, L. Kevin Wall and Robert A. Jacobson

Tetrahedron: Asymmetry **1992**, *3*, 367



$[\alpha]_D^{25} = -24.8$ (c 10.3, $CHCl_3$)

Source of chirality: natural (+)-camphor

Absolute Configuration: 1R,2R,3S,4R

$C_{20}H_{28}O_2$

3-(phenylmethyl)-1,7,7-trimeythylbicyclo[2.2.1]hept-2-yl propanoate

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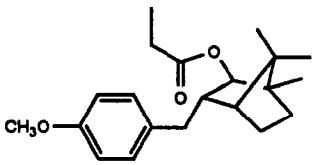
Byung-Ick Seo, Il-Hwan Suh, William P. Jensen, David E. Lewis, L. Kevin Wall and Robert A. Jacobson

Tetrahedron: Asymmetry **1992**, *3*, 367



$[\alpha]_D^{25} = -19.5$ (c 10.8, $CHCl_3$)

Source of chirality: natural (+)-camphor

Absolute Configuration: 1R,2R,3S,4R

$C_{21}H_{30}O_3$

3-[(4-methoxyphenyl)methyl]-1,7,7-trimeythylbicyclo[2.2.1]hept-2-yl propanoate

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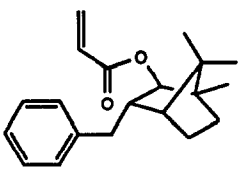
Byung-Ick Seo, Il-Hwan Suh, William P. Jensen, David E. Lewis, L. Kevin Wall and Robert A. Jacobson

Tetrahedron: Asymmetry **1992**, *3*, 367



$[\alpha]_D^{25} = -11.1$ (c 10.3, $CHCl_3$)

Source of chirality: natural (+)-camphor

Absolute Configuration: 1R,2R,3S,4R

$C_{20}H_{26}O_2$

3-(phenylmethyl)-1,7,7-trimeythylbicyclo[2.2.1]hept-2-yl propenoate

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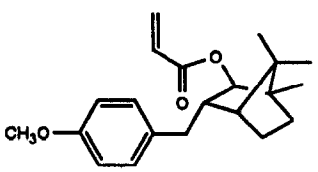
Byung-Ick Seo, Il-Hwan Suh, William P. Jensen, David E. Lewis, L. Kevin Wall and Robert A. Jacobson

Tetrahedron: Asymmetry **1992**, *3*, 367



$[\alpha]_D^{25} = -11.0$ (c 5.4, $CHCl_3$)

Source of chirality: natural (+)-camphor

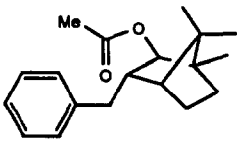
Absolute Configuration: 1R,2R,3S,4R

$C_{21}H_{28}O_3$

3-[(4-methoxyphenyl)methyl]-1,7,7-trimeythylbicyclo[2.2.1]hept-2-yl 2-propenoate

Byung-Ick Seo, Il-Hwan Suh, William P. Jensen, David E. Lewis, L. Kevin Wall and Robert A. Jacobson

Tetrahedron: Asymmetry **1992**, *3*, 367



$[\alpha]_D^{25}$ = - 10.2 (c 9.9, $CHCl_3$)

Source of chirality: natural (+)-camphor

Absolute Configuration: 1R,2R,3S,4R

$C_{19}H_{26}O_2$

3-(phenylmethyl)-1,7,7-trimeythylbicyclo[2.2.1]hept-2-yl ethanoate

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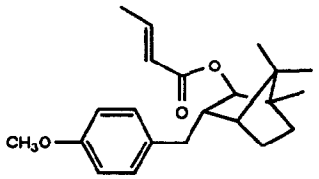
Byung-Ick Seo, Il-Hwan Suh, William P. Jensen, David E. Lewis, L. Kevin Wall and Robert A. Jacobson

Tetrahedron: Asymmetry **1992**, *3*, 367



$[\alpha]_D^{25}$ = - 16.1 (c 12.6, $CHCl_3$)

Source of chirality: natural (+)-camphor

Absolute Configuration: 1R,2R,3S,4R

$C_{22}H_{30}O_3$

3-[(4-methoxyphenyl)methyl]-1,7,7-trimeythylbicyclo[2.2.1]hept-2-yl *E*-2-butenoate

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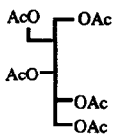
A. Saba

Tetrahedron: Asymmetry **1992**, *3*, 371



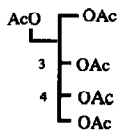
$C_{16}H_{24}O_{10}$

$[\alpha]_D^{25}$ = +4.8 (c 1.1, $CHCl_3$)
Surce of chirality: D-mannitol , (+)-menthol and (-)-menthol
Absolute configuration: 3R, 4R

2-deoxy-2-hydroxymethyl-3,4-*threo*-pentitol pentaacetate

A. Saba

Tetrahedron: Asymmetry **1992**, *3*, 371



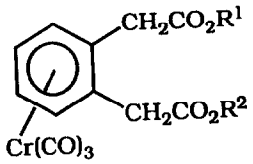
$C_{16}H_{24}O_{10}$

$[\alpha]_D^{25}$ = +2.7 (c 0.80, $CHCl_3$)
Surce of chirality: D-mannitol , (+)-menthol and (-)-menthol
Absolute configuration: 3S, 4R

2-deoxy-2-hydroxymethyl-3,4-*erythro*-pentitol pentaacetate

B. Malézieux, G. Jaouen, J. Salaün, J.A.S. Howell, M.G. Palin, P. McArdle, M. O'Gara, and D. Cunningham

Tetrahedron: Asymmetry **1992,** *3*, 375

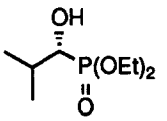


R^1=Et, R^2=Me
$[\alpha]_D^{20}$ = +11.3 (c 7.08 x 10^{-3}, ethyl acetate)
R^1=Me, R^2=Et
Source of chirality: enzymatic hydrolysis of meso precursors
Absolute configuration:
R^1=Et, R^2=Me (1R)

$C_{16}H_{16}O_7Cr$
tricarbonylchromium(1,2-benzenediacetic acid, methyl ethyl ester)

Tsutomu Yokomatsu and Shiroshi Shibuya

Tetrahedron: Asymmetry **1992,** *3*, 377

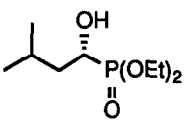


E.e.= >95% [by ^{1}H-NMR as (+)- and (–) Mosher esters]
$[\alpha]_D^{20}$ -4.0 (c 1.0, $CHCl_3$)
Source of chirality: asymm. synth. from (+)-(2S,4S)-pentanediol
Absolute configuration: R

$C_8H_{19}O_4P$
(*R*)-1-Diethylphosphono-1-hydroxy-2-methylpropane

Tsutomu Yokomatsu and Shiroshi Shibuya

Tetrahedron: Asymmetry **1992,** *3*, 377

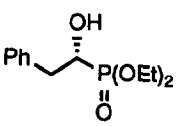


E.e.= >95% [by ^{1}H-NMR as (+)- and (–) Mosher esters]
$[\alpha]_D^{20}$ -16.5 (c 0.5, $CHCl_3$)
Source of chirality: asymm. synth. from (+)-(2S,4S)-pentanediol
Absolute configuration: R

$C_9H_{21}O_4P$
(*R*)-1-Diethylphosphono-1-hydroxy-3-methylbutane

Tsutomu Yokomatsu and Shiroshi Shibuya

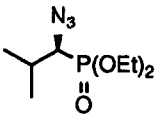
Tetrahedron: Asymmetry **1992,** *3*, 377



E.e.= >95% [by ^{1}H-NMR as (+)- and (–) Mosher esters]
$[\alpha]_D^{20}$ -21.3 (c 0.9, $CHCl_3$)
Source of chirality: asymm. synth. from (+)-(2S,4S)-pentanediol
Absolute configuration: R

$C_{12}H_{19}O_4P$
(*R*)-1-Diethylphosphono-1-hydroxy-3-phenylethane

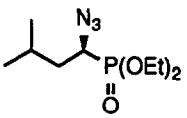
Tsutomu Yokomatsu and Shiroshi Shibuya | *Tetrahedron: Asymmetry* **1992,** *3*, 377



$[\alpha]_D^{20}$ +45.1 (c 1.0, $CHCl_3$)
Source of chirality: asymm. synth. from (+)-(2S,4S)-pentanediol
Absolute configuration: S

$C_8H_{18}N_3O_3P$
(*S*)-1-Azido-1-diethylphosphono-2-methylpropane

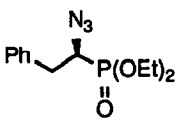
Tsutomu Yokomatsu and Shiroshi Shibuya | *Tetrahedron: Asymmetry* **1992,** *3*, 377



$[\alpha]_D^{20}$ +36.3 (c 1.0, $CHCl_3$)
Source of chirality: asymm. synth. from (+)-(2S,4S)-pentanediol
Absolute configuration: S

$C_9H_{20}N_3O_3P$
(*S*)-1-Azido-1-diethylphosphono-3-methylbutane

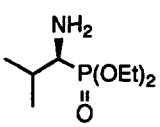
Tsutomu Yokomatsu and Shiroshi Shibuya | *Tetrahedron: Asymmetry* **1992,** *3*, 377



$[\alpha]_D^{20}$ +57.8 (c 0.7, $CHCl_3$)
Source of chirality: asymm. synth. from (+)-(2S,4S)-pentanediol
Absolute configuration: S

$C_{12}H_{18}N_3O_3P$
(*S*)-1-Azido-1-diethylphosphono-3-phenylethane

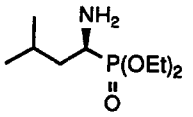
Tsutomu Yokomatsu and Shiroshi Shibuya | *Tetrahedron: Asymmetry* **1992,** *3*, 377



$[\alpha]_D^{20}$ +0.75 (c 2.0, $CHCl_3$)
Source of chirality: asymm. synth. from (+)-(2S,4S)-pentanediol
Absolute configuration: S

$C_8H_{20}NO_3P$
(*S*)-1-Amino-1-diethylphosphono-2-methylpropane

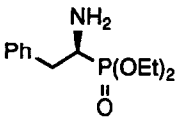
Tsutomu Yokomatsu and Shiroshi Shibuya | *Tetrahedron: Asymmetry* **1992,** *3*, 377



$[\alpha]_D^{20}$ +18.4 (c 0.9, $CHCl_3$)
Source of chirality: asymm. synth. from (+)-(2S,4S)-pentanediol
Absolute configuration: S

$C_9H_{22}NO_3P$
(*S*)-1-Amino-1-diethylphosphono-3-methylbutane

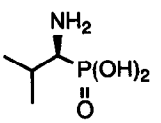
Tsutomu Yokomatsu and Shiroshi Shibuya | *Tetrahedron: Asymmetry* **1992,** *3*, 377



$[\alpha]_D^{20}$ +11.0 (c 0.8, $CHCl_3$)
Source of chirality: asymm. synth. from (+)-(2S,4S)-pentanediol
Absolute configuration: S

$C_{12}H_{20}NO_3P$
(*S*)-1-Amino-1-diethylphosphono-2-phenylethane

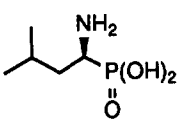
Tsutomu Yokomatsu and Shiroshi Shibuya | *Tetrahedron: Asymmetry* **1992,** *3*, 377



$[\alpha]_{577}^{20}$ -0.6 (c 2.0, 1N NaOH)
Source of chirality: asymm. synth. from (+)-(2S,4S)-pentanediol
Absolute configuration: S

$C_4H_{12}NO_3P$
(*S*)-(1-Amino-2-methylpropyl)phosphonic acid

Tsutomu Yokomatsu and Shiroshi Shibuya | *Tetrahedron: Asymmetry* **1992,** *3*, 377

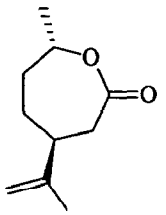


$[\alpha]_{577}^{20}$ +24.5 (c 1.0, 1N NaOH)
Source of chirality: asymm. synth. from (+)-(2S,4S)-pentanediol
Absolute configuration: S

$C_5H_{14}NO_3P$
(*S*)-(1-Amino-3-methylbutyl)phosphonic acid

V. Alphand and R. Furstoss

Tetrahedron: Asymmetry **1992**, *3*, 379



$[\alpha]_D^{25} = +46.2$ (c=1.1 $CHCl_3$)

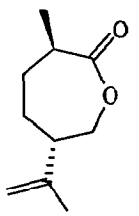
Source of chirality : natural and regioselective microbiological Baeyer-Villiger oxidation

Absolute configuration 4S, 7S

$C_{10}H_{16}O_2$ 7-Methyl-4-isopropenyl-2-oxo-oxepanone

V. Alphand and R. Furstoss

Tetrahedron: Asymmetry **1992**, *3*, 379



$[\alpha]_D^{23} = -35.8$ (c=1.6 $CHCl_3$)

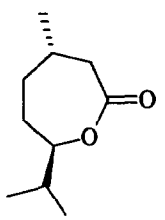
Source of chirality : natural and regioselective microbiological Baeyer-Villiger oxidation

Absolute configuration 3R, 6S

$C_{10}H_{16}O_2$ 3-Methyl-6-isopropenyl-2-oxo-oxepanone

V. Alphand and R. Furstoss

Tetrahedron: Asymmetry **1992**, *3*, 379



$[\alpha]_D^{23} = +20.6$ (c=1.45 $CHCl_3$)

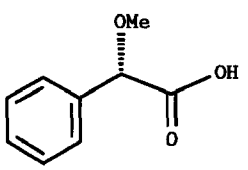
Source of chirality : natural and enantioselective microbiological Baeyer-Villiger oxidation

Absolute configuration 4S, 7R

$C_{10}H_{18}O_2$ 4-Methyl-7-isopropyl-2-oxo-oxepanone

C. Fuganti, C.M. Rosell, S. Servi, A. Tagliani and M. Terreni

Tetrahedron: Asymmetry **1992**, *3*, 383



$C_9H_{10}O_3$

2-Methoxy-phenylacetic acid

E.e.= >98% by HPLC of the methyl ester on a chiral column (Chiracel OD)

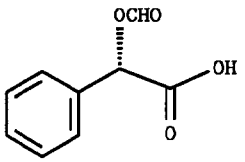
$[\alpha]_D^{20} = +138$ (c=0.5 EtOH)

Source of chirality: kinetic resolution by hydrolysis catalysed by Penicillin G acylase

Absolute configuration 2S
(assigned by rotation sign of the corresponding ester)

C. Fuganti, C.M. Rosell, S. Servi, A. Tagliani and M. Terreni

Tetrahedron: Asymmetry **1992**, *3*, 383



$C_9H_8O_3$

2-Formyl-phenylacetic acid

E.e.= >98% by GC of the methyl ester on a chiral capillary column (Megadex 1)

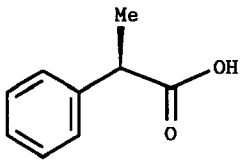
$[\alpha]_D^{20}$= +139.1 (c=1, EtOH)

Source of chirality: kinetic resolution by hydrolysis catalysed by Penicillin G acylase

Absolute configuration 2S
(assigned by rotation sign of the corresponding ester)

C. Fuganti, C.M. Rosell, S. Servi, A. Tagliani and M. Terreni

Tetrahedron: Asymmetry **1992**, *3*, 383



$C_9H_{10}O_2$

2-Methyl-phenylacetic acid

E.e.= >98% by GC of the methyl ester on a chiral capillary column (Megadex 1)

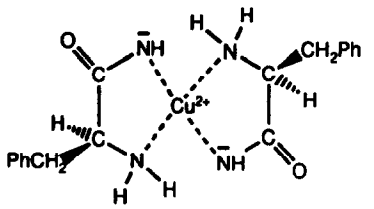
$[\alpha]_D^{20}$= -77 (c=1.6, $CHCl_3$)

Source of chirality: kinetic resolution by hydrolysis catalysed by Penicillin G acylase

Absolute configuration 2R
(assigned by rotation sign of the corresponding ester)

R.Corradini, G.Gasparri Fava, M.Belicchi Ferrari, A.Dossena, R.Marchelli and G.Pelosi

Tetrahedron: Asymmetry **1992**, *3*, 387

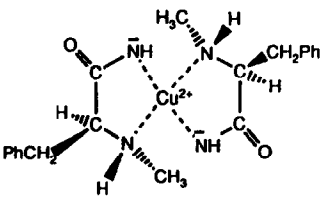


$C_{18}H_{22}CuN_4O_2$
Bis[(S)-phenylalaninamidato]copper(II)

CD: $[\theta]_{258}$=+8300 (c=0.2mM H_2O pH=9)
$[\theta]_{555}$=-980 (c=1mM H_2O pH=11)
Absolute configuration : C(2)S, C(11)S
Source of chirality: natural amino acids
Chelate ring puckering : δλ

R.Corradini, G.Gasparri Fava, M.Belicchi Ferrari, A.Dossena, R.Marchelli and G.Pelosi

Tetrahedron: Asymmetry **1992**, *3*, 387

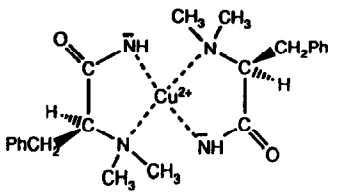


$C_{20}H_{28}CuN_4O_3$
Bis[N^2-methyl-(S)-phenylalaninamidato]copper(II)

CD: $[\theta]_{262}$=+5150 (c=0.2mM H_2O pH=10)
$[\theta]_{540}$=-2060 (c=1mM H_2O pH=11)
$[\theta]_{453}$=+1470 (c=1mM H_2O pH=11)
Absolute configuration : N(2)R, C(2)S, N(4)R, C(11)S
Source of chirality: natural amino acids, asymmetric disposition of methyl group on nitrogens
Chelate ring puckering : λλ

R.Corradini, G.Gasparri Fava, M.Belicchi Ferrari, A.Dossena, R.Marchelli and G.Pelosi

Tetrahedron: Asymmetry **1992,** *3*, 387

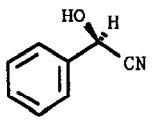


CD: $[\theta]_{285}$=+7800 (c=0.2mM $c_{Me2PheNH2}$=1.6mM H_2O pH=10)
$[\theta]_{544}$=-3400 (c=1mM $c_{Me2PheNH2}$=8mM H_2O pH=10)
$[\theta]_{434}$=+320 (c=1mM H_2O pH=11)
Absolute configuration : C(2)S, C(13)S
Source of chirality: natural amino acids
Chelate ring puckering : δλ

$C_{22}H_{32}CuN_4O_3$
Aquabis[N^2,N^2-dimethyl-(S)-phenylalaninamidato]copper(II)

D. Callant, B. Coussens, T. v.d. Maten, J.G. de Vries and N.K. de Vries

Tetrahedron: Asymmetry **1992,** *3*, 401



E.e.: 97%

$[\alpha]_D^{25}$ = -39.9 (c = 4.66, benzene)

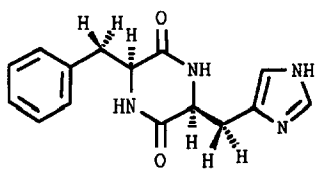
Source of chirality: Asymm. Synth.

Absolute configuration: R

R-Mandelonitrile C_8H_7NO

D. Callant, B. Coussens, T. v.d. Maten, J.G. de Vries and N.K. de Vries

Tetrahedron: Asymmetry **1992,** *3*, 401



E.e.: Presumed 100%

$[\alpha]_D^{23}$ = -65.2 (c = 1.97, AcOH)

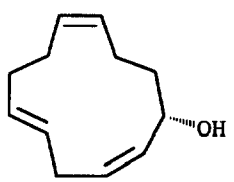
Source of chirality: Chiral pool

Absolute configuration: S,S

Cyclo-phenylalanyl-histidyl $C_{15}H_{16}N_4O_2$

J. I. Padrón, J. T. Vázquez, E. Q. Morales, M. Zárraga and J. D. Martín.

Tetrahedron: Asymmetry **1992,** *3*, 415

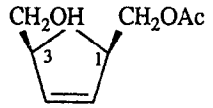


E. e. = ≥ 99% [by GLC of Mosher's ester derivative]
$[\alpha]_D^{25}$ = +143.1 (c 1.01, $CHCl_3$)
Source of chirality: resolution of its acid phtalate ester by (-)-brucine
Absolute Configuration: 1*S*
(assigned by CD of its *p*-bromobenzoyl derivative)

$C_{12}H_{18}O$
(Z,E,Z)-1(S)-Hydroxy-cyclododeca-2,5,9-triene

M. Mekrami and S. Sicsic

Tetrahedron: Asymmetry **1992,** *3*, 431



$C_9H_{14}O_3$

Cis-4-cyclopentene-1,3-dimethanol monoacetate

ee=97% (chiral GPC)

$[\alpha]_D^{25}$=-20 (c=1, CCl_4)

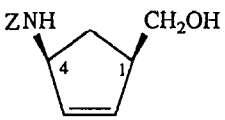
Source of chirality: asym. synth.(enzym.)

Absolute configuration: 1R,3S

(assigned by chemical correlation)

M. Mekrami and S. Sicsic

Tetrahedron: Asymmetry **1992,** *3*, 431



$C_{14}H_{17}NO_3$

Cis-4-(benzyloxycarbonylamino)-2-cyclopentene-1-methanol

ee=97%

$[\alpha]_D^{25}$=-48 (c=1, CCl_4)

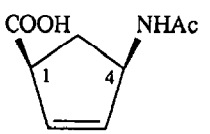
Source of chirality: asym. synth.(enzym.)

Absolute configuration: 1R,4S

(assigned by chemical correlation)

M. Mekrami and S. Sicsic

Tetrahedron: Asymmetry **1992,** *3*, 431



$C_8H_{11}NO_3$

Cis-4-(acetylamino)-2-cyclopentene-1-carboxylic acid

ee=97%

$[\alpha]_D^{25}$=-72 (c=1, CCl_4)

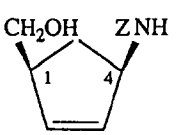
Source of chirality: enzymatic resolution

Absolute configuration: 1S,4R

(assigned by comparison with literature)

M. Mekrami and S. Sicsic

Tetrahedron: Asymmetry **1992,** *3*, 431



$C_{14}H_{17}NO_3$

Cis-4-(benzyloxycarbonylamino)-2-cyclopentene-1-methanol

ee=97%

[α]=+52° (c=1, CCl_4)

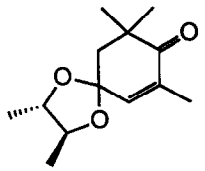
Source of chirality: enzymatic resolution

Absolute configuration: 1S,4R

(assigned by chemical correlation)

P. A. Rose, S. R. Abrams and A. C. Shaw

Tetrahedron: Asymmetry **1992**, *3*, 443

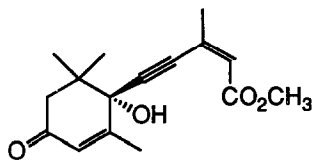


$C_{13}H_{20}O_3$ $[\alpha]_D$ = + 15.7 [MeOH, c 1.24]
Source of chirality (2S,3S)-2,3-butanediol

(2S, 3S)-2,3,7,9,9-pentamethyl-1,4-dioxaspiro[4.5]dec-6-en-8-one

P. A. Rose, S. R. Abrams and A. C. Shaw

Tetrahedron: Asymmetry **1992**, *3*, 443

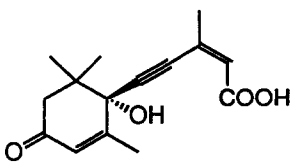


$C_{16}H_{20}O_4$ $[\alpha]_D$ = + 238.3 [MeOH, c 1.26]
ORD: positive Cotton effect
Absolute configuration: C-1' (S)
Source of chirality (2S,3S)-2,3-butanediol

(+)-4(Z)-(4R)-4-Hydroxy-4-(5-carboxymethyl-3-methylpent-3-en-1-ynyl)-3, 5, 5-trimethylcyclohex-2-enone

P. A. Rose, S. R. Abrams and A. C. Shaw

Tetrahedron: Asymmetry **1992**, *3*, 443

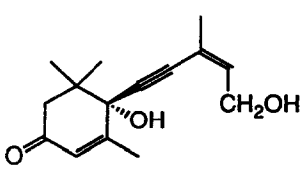


$C_{15}H_{18}O_4$ $[\alpha]_D$ = + 283.5 [MeOH, c 0.45]
Absolute configuration: C-1' (S)
Source of chirality (2S,3S)-2,3-butanediol

(+)-4(Z)-(4R)-4-Hydroxy-4-(5-carboxy-3-methylpent-3-en-1-ynyl)-3, 5, 5-trimethylcyclohex-2-enone

P. A. Rose, S. R. Abrams and A. C. Shaw

Tetrahedron: Asymmetry **1992**, *3*, 443

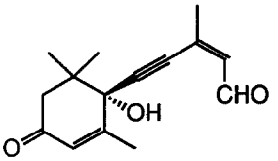


$C_{15}H_{20}O_3$ $[\alpha]_D$ = + 255.2 [MeOH, c 1.25]
Absolute configuration: C-1' (S)
Source of chirality (2S,3S)-2,3-butanediol

(+)-4(Z)-(4R)-4-Hydroxy-4-(5-hydroxy-3-methylpent-3-en-1-ynyl)-3, 5, 5-trimethylcyclohex-2-enone

P. A. Rose, S. R. Abrams and A. C. Shaw

Tetrahedron: Asymmetry **1992,** *3*, 443

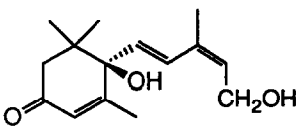


$C_{15}H_{18}O_3$ $[\alpha]_D$ = + 308.2 [MeOH, c 1.03]
Absolute configuration: C-1' (S)
Source of chirality (2S,3S)-2,3-butanediol

(+)-4(Z)-(4R)-4-Hydroxy-4-(5-oxo-3-methylpent-3-en-1-ynyl)-3, 5, 5-trimethylcyclohex-2-enone

P. A. Rose, S. R. Abrams and A. C. Shaw

Tetrahedron: Asymmetry **1992,** *3*, 443

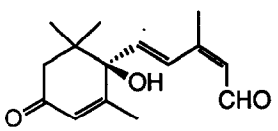


$C_{15}H_{22}O_3$ $[\alpha]_D$ = + 72.5 [MeOH, c 1.25]
Absolute configuration: C-1' (S)
Source of chirality (2S,3S)-2,3-butanediol

(+)-Abscisyl alcohol

P. A. Rose, S. R. Abrams and A. C. Shaw

Tetrahedron: Asymmetry **1992,** *3*, 443

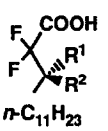


$C_{15}H_{20}O_3$ $[\alpha]_D$ = + 451.7 [MeOH, c 1.38]
lit. value $[\alpha]_D$ = + 450.5 [EtOH]
Absolute configuration: C-1' (S)
Source of chirality (2S,3S)-2,3-butanediol

(+)-Abscisyl aldehyde

M. Shiozaki, Y. Kobayashi

Tetrahedron: Asymmetry **1992,** *3*, 451



$C_{22}H_{32}O_5F_2$

R^1 = OCOOBn, R^2 = H
(*R*)-3-[(Benzyloxycarbonyl)oxy]-2,2-(difluoro)tetradecanoic Acid
$[\alpha]_D^{24}$ -11.5 (c 0.9, $CHCl_3$)
Source of chirality: D-galactose