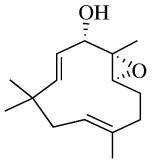
Takashi Kitayama,* Atsushi Furuya, Chiyuki Moriyama, Tomomi Masuda, Sachiko Fushimi, Yuji Yonekura, Haruko Kubo, Yasushi Kawai and Seiji Sawada

Tetrahedron: Asymmetry *17 (2006) 2311*



$C_{15}H_{24}O_2$

(1*S*,2*S*,3*S*)-2,3-Epoxy-2,6,9,9-tetramethyl-6,10-cycloundecadien-l-ol

Ee = 89% [Capillary GC with chiral column (CPCD)]

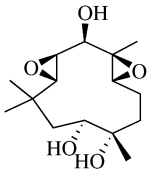
$[\alpha]_D^{23.5} = +19.9$ (*c* 1.16, EtOH)

Source of chirality: asymmetric epoxidation of allylic alcohol

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

Takashi Kitayama,* Atsushi Furuya, Chiyuki Moriyama, Tomomi Masuda, Sachiko Fushimi, Yuji Yonekura, Haruko Kubo, Yasushi Kawai and Seiji Sawada

Tetrahedron: Asymmetry *17 (2006) 2311*



$C_{15}H_{26}O_5$

(1*R*,2*R*,3*R*,6*S*,7*S*,10*S*,11*S*)-6,7-Dihydroxy-2,3-10,11-bisepoxy-2,6,9,9-tetramethylcycloundecan-l-ol

Ee = 99% [^{1}H and ^{13}C NMR]

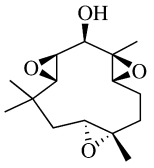
$[\alpha]_D^{23.5} = -2.6$ (*c* 1.07, EtOH)

Source of chirality: asymmetric dihydroxylation of chiral olefin

Absolute configuration: 1*R*,2*R*,3*R*,6*S*,7*S*,10*S*,11*S*

Takashi Kitayama,* Atsushi Furuya, Chiyuki Moriyama, Tomomi Masuda, Sachiko Fushimi, Yuji Yonekura, Haruko Kubo, Yasushi Kawai and Seiji Sawada

Tetrahedron: Asymmetry *17 (2006) 2311*



$C_{15}H_{24}O_4$

(1*R*,2*R*,3*R*,6*S*,7*S*,10*S*,11*S*)-2,3,-6,7-10,11-Triepoxy-2,6,9,9-tetramethylcycloundecan-1-o1

Ee = >99% [^{1}H and ^{13}C NMR]

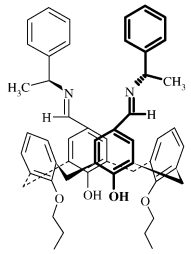
$[\alpha]_D^{23.5} = -4.5$ (*c* 0.101, EtOH)

Source of chirality: asymmetric epoxidation of chiral olefin

Absolute configuration: 1*R*,2*R*,3*R*,6*S*,7*S*,10*S*,11*S*

Mustafa Durmaz, Sabri Alpaydin, Abdulkadir Sirit and Mustafa Yilmaz*

Tetrahedron: Asymmetry *17 (2006) 2322*



$C_{52}H_{54}O_4N_2$

(5*S*,17*S*)-Di(phenylethylimido)-25,27-dipropoxy-26,28-dihydroxycalix[4]arene

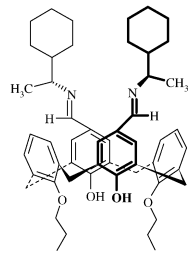
$[\alpha]_D^{20} = +54.7$ (*c* 0.5 $CHCl_3$)

Source of chirality: (*S*)-(−)-1-phenylethylamine

Absolute configuration: (*S*,*S*)

Mustafa Durmaz, Sabri Alpaydin, Abdulkadir Sirit and Mustafa Yilmaz*

Tetrahedron: Asymmetry *17 (2006) 2322*



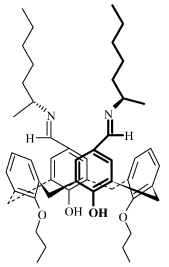
$C_{52}H_{66}O_4N_2$

(5*R*,17*R*)-Di(cyclohexylethylimido)-25,27-dipropoxy-26,28-dihydroxycalix[4]arene

$[\alpha]_D^{20} = -4.5$ (*c* 0.4 $CHCl_3$)
Source of chirality: (*R*)-(−)-1-cyclohexylethylamine
Absolute configuration: (*R*,*R*)

Mustafa Durmaz, Sabri Alpaydin, Abdulkadir Sirit and Mustafa Yilmaz*

Tetrahedron: Asymmetry *17 (2006) 2322*



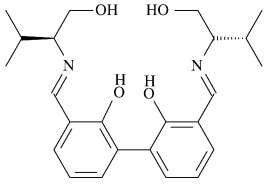
$C_{50}H_{66}O_4N_2$

(5*R*,17*R*)-Di(2-heptylimido)-25,27-dipropoxy-26,28-dihydroxycalix[4]arene

$[\alpha]_D^{20} = -2.1$ (*c* 0.4 $CHCl_3$)
Source of chirality: (*R*)-(−)-2-heptylamine
Absolute configuration: (*R*,*R*)

Yuri N. Belokon,* Denis Chusov, Dmitry A. Borkin, Lidia V. Yashkina, Andrey V. Dmitriev, Dmitry Katayev and Michael North

Tetrahedron: Asymmetry *17 (2006) 2328*



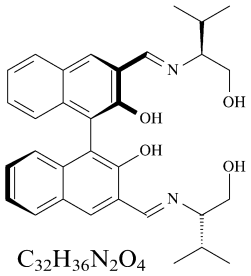
$C_{24}H_{32}N_2O_4$

3,3′-[((*S*)-1-Hydroxymethyl-2-methylpropyl)imino]methyl-2,2′-dihydroxy-1,1′-biphenyl

Ee = 100%
$[\alpha]_D^{25} = -143.8$ (*c* 1, MeOH)
Source of chirality: synthesis from (*S*)-valine
Absolute configuration: (*S*,*S*)

Yuri N. Belokon,* Denis Chusov, Dmitry A. Borkin, Lidia V. Yashkina, Andrey V. Dmitriev, Dmitry Katayev and Michael North

Tetrahedron: Asymmetry *17 (2006) 2328*



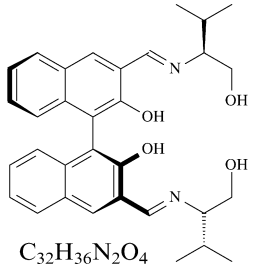
$C_{32}H_{36}N_2O_4$

3,3′-[((*S*)-1-Hydroxymethyl-2-methylpropyl)imino]methyl-2,2′-dihydroxy-(*R*)-1,1′-binaphthalene

Ee = 100%
$[\alpha]_D^{25} = -139.8$ (*c* 1, $CHCl_3$)
Source of chirality: synthesis from (*S*)-valine and (*R*)-binol
Absolute configuration: (*S*,*S*,[a]*R*)

Yuri N. Belokon,* Denis Chusov, Dmitry A. Borkin, Lidia V. Yashkina, Andrey V. Dmitriev, Dmitry Katayev and Michael North

Tetrahedron: Asymmetry *17 (2006) 2328*



$C_{32}H_{36}N_2O_4$

3,3′-[((*S*)-1-Hydroxymethyl-2-methylpropyl)imino]methyl-2,2′-dihydroxy-(*S*)-1,1′-binaphthalene

Ee = 100%

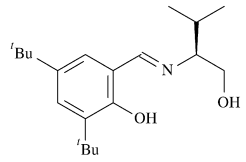
$[\alpha]_D^{25} = -163$ (*c* 1, $CHCl_3$)

Source of chirality: synthesis from (*S*)-valine and (*S*)-binol

Absolute configuration: (*S*,*S*,^{a}*S*)

Yuri N. Belokon,* Denis Chusov, Dmitry A. Borkin, Lidia V. Yashkina, Andrey V. Dmitriev, Dmitry Katayev and Michael North

Tetrahedron: Asymmetry *17 (2006) 2328*



$C_{20}H_{33}NO_2$

N-(2-Hydroxy-3,5-di-*tert*-butyl-benzylidene)-(*S*)-2-amino-3-methylbutan-1-ol

Ee = 96.6%

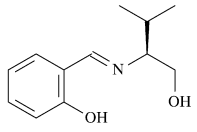
$[\alpha]_D^{25} = -33.3$ (*c* 0.78, MeOH)

Source of chirality: synthesis from (*S*)-valine

Absolute configuration: (*S*)

Yuri N. Belokon,* Denis Chusov, Dmitry A. Borkin, Lidia V. Yashkina, Andrey V. Dmitriev, Dmitry Katayev and Michael North

Tetrahedron: Asymmetry *17 (2006) 2328*



$C_{12}H_{17}NO_2$

N-(2-Hydroxybenzylidene)-(*S*)-2-amino-3-methylbutan-1-ol

Ee = 96.6%

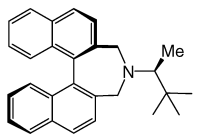
$[\alpha]_D^{25} = -25.0$ (*c* 0.8, MeOH)

Source of chirality: synthesis from (*S*)-valine

Absolute configuration: (*S*)

Jérôme Vachon, Cédric Lauper, Klaus Ditrich and Jérôme Lacour*

Tetrahedron: Asymmetry *17 (2006) 2334*



$C_{28}H_{29}N$

(−)-(R_a)-4,5-Dihydro-3*H*-4-[(*S*)-3,3-dimethylbutan-2-yl]dinaphth[2,1-*c*;1′,2′-*e*]azepine

De >99%

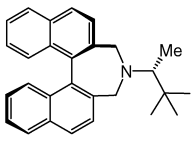
$[\alpha]_D^{20} = -272.4$ (*c* 0.10, MeOH)

Source of chirality: (*S*)-1,2,2-trimethyl-propylamine, (R_a)-2,2′-bis(bromomethyl)-1,1′-binaphthyl made (R_a)-BINOL

Absolute configuration: (R_a,*S*)

Jérôme Vachon, Cédric Lauper, Klaus Ditrich and Jérôme Lacour*

Tetrahedron: Asymmetry *17 (2006) 2334*



$C_{28}H_{29}N$

De >99%

$[\alpha]_D^{20} = -255.8$ (*c* 0.10, MeOH)

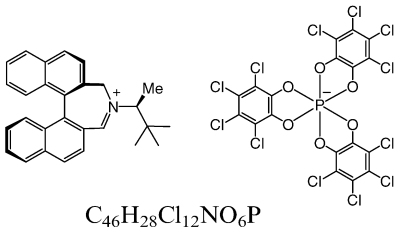
Source of chirality: (*R*)-1,2,2-trimethyl-propylamine, (R_a)-2,2′-bis(bromomethyl)-1,1′-binaphthyl made (R_a)-BINOL

Absolute configuration: (R_a,*R*)

(−)-(R_a)-4,5-Dihydro-3*H*-4-[(*R*)-3,3-dimethylbutan-2-yl]dinaphth[2,1-*c*;1′,2′-*e*]azepine

Jérôme Vachon, Cédric Lauper, Klaus Ditrich and Jérôme Lacour*

Tetrahedron: Asymmetry *17 (2006) 2334*



$C_{46}H_{28}Cl_{12}NO_6P$

De >99%

$[\alpha]_D^{20} = -207.4$ (*c* 0.10, MeOH)

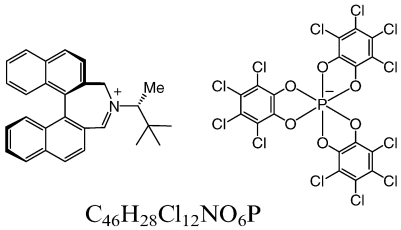
Source of chirality: (*S*)-1,2,2-trimethyl-propylamine, (R_a)-2,2′-bis(bromomethyl)-1,1′-binaphthyl made (R_a)-BINOL

Absolute configuration: (R_a,*S*)

(−)-(R_a)-[(*S*)-3,3-Dimethylbutan-2-yl]-3*H*-4-azapinium-cyclohepta[2,1-*a*;3,4-*a*′]dinaphthalene (*rac*)-TRISPHAT

Jérôme Vachon, Cédric Lauper, Klaus Ditrich and Jérôme Lacour*

Tetrahedron: Asymmetry *17 (2006) 2334*



$C_{46}H_{28}Cl_{12}NO_6P$

De >99%

$[\alpha]_D^{20} = -264.3$ (*c* 0.10, MeOH)

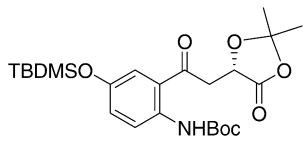
Source of chirality: (*R*)-1,2,2-trimethyl-propylamine, (R_a)-2,2′-bis(bromomethyl)-1,1′-binaphthyl made (R_a)-BINOL

Absolute configuration: (R_a,*R*)

(−)-(R_a)-[(*R*)-3,3-Dimethylbutan-2-yl]-3*H*-4-azapinium-cyclohepta[2,1-*a*;3,4-*a*′]dinaphthalene (*rac*)-TRISPHAT

Hisashi Takihiro, Yoshiyuki Uruma, Yoshinosuke Usuki, Akio Miyake and Hideo Iio*

Tetrahedron: Asymmetry *17 (2006) 2339*



$[\alpha]_D^{28} = +4.61$ (*c* 3.93, CH_3OH)

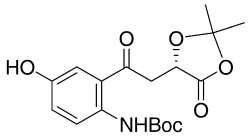
Source of chirality: (*S*)-malic acid

Absolute configuration: (*S*)

(*S*)-{4-(*tert*-Butyl-dimethyl-silanyloxy)-2-[2-(2,2-dimethyl-5-oxo-[1,3]dioxolan-4-yl)-acetyl]-phenyl}-carbamic acid *tert*-butyl ester

Hisashi Takihiro, Yoshiyuki Uruma, Yoshinosuke Usuki, Akio Miyake and Hideo Iio*

Tetrahedron: Asymmetry *17 (2006) 2339*

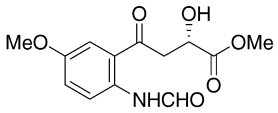


$[\alpha]_D^{25} = +6.55$ (*c* 3.97, CH_3OH)
Source of chirality: (*S*)-malic acid
Absolute configuration: (*S*)

(*S*)-{2-[2-(2,2-Dimethyl-5-oxo-[1,3]dioxolan-4-yl)-acetyl]-4-hydroxy-phenyl}-carbamic acid *tert*-butyl ester

Hisashi Takihiro, Yoshiyuki Uruma, Yoshinosuke Usuki, Akio Miyake and Hideo Iio*

Tetrahedron: Asymmetry *17 (2006) 2339*

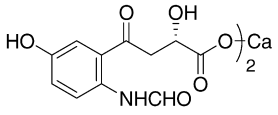


$[\alpha]_D^{25} = +3.52$ (*c* 0.4, CH_3OH)
Source of chirality: (*S*)-malic acid
Absolute configuration: (*S*)

(*S*)-4-(2-Formylamino-5-methoxy-phenyl)-2-hydroxy-4-oxo-butyric acid methyl ester

Hisashi Takihiro, Yoshiyuki Uruma, Yoshinosuke Usuki, Akio Miyake and Hideo Iio*

Tetrahedron: Asymmetry *17 (2006) 2339*

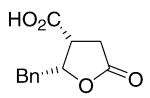


$[\alpha]_D^{27} = -94.5$ (*c* 1.07, DMSO)
Source of chirality: (*S*)-malic acid
Absolute configuration: (*S*)

(*S*)-Blepharismone

Federico Berti, Fulvia Felluga, Cristina Forzato,* Giada Furlan, Patrizia Nitti, Giuliana Pitacco and Ennio Valentin*

Tetrahedron: Asymmetry *17 (2006) 2344*



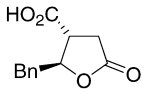
$C_{12}H_{12}O_4$

Ee = >99%
$[\alpha]_D^{25} = +125.6$ (*c* 0.16, CH_3OH)
Source of chirality: enzymatic resolution
Absolute configuration: (2*R*,3*R*)

(2*R*,3*R*)-2-Benzyltetrahydro-5-oxo-3-furancarboxylic acid

Federico Berti, Fulvia Felluga, Cristina Forzato,* Giada Furlan, Patrizia Nitti, Giuliana Pitacco and Ennio Valentin*

Tetrahedron: Asymmetry *17 (2006) 2344*



$C_{12}H_{12}O_4$

(2*S*,3*R*)-2-Benzyltetrahydro-5-oxo-3-furancarboxylic acid

Ee = >99%

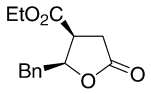
$[\alpha]_D^{25} = -49.0$ (*c* 0.20, CH_3OH)

Source of chirality: enzymatic resolution

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

Federico Berti, Fulvia Felluga, Cristina Forzato,* Giada Furlan, Patrizia Nitti, Giuliana Pitacco and Ennio Valentin*

Tetrahedron: Asymmetry *17 (2006) 2344*



$C_{14}H_{16}O_4$

Ethyl (2*S*,3*S*)-2-benzyltetrahydro-5-oxo-3-furancarboxylate

Ee = 99%

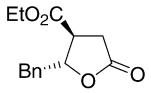
$[\alpha]_D^{25} = -79.4$ (*c* 0.34, CH_3OH)

Source of chirality: enzymatic resolution

Absolute configuration: (2*S*,3*S*)

Federico Berti, Fulvia Felluga, Cristina Forzato,* Giada Furlan, Patrizia Nitti, Giuliana Pitacco and Ennio Valentin*

Tetrahedron: Asymmetry *17 (2006) 2344*



$C_{14}H_{16}O_4$

Ethyl (2*R*,3*S*)-2-benzyltetrahydro-5-oxo-3-furancarboxylate

Ee = >99%

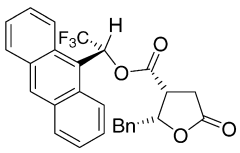
$[\alpha]_D^{25} = +19.6$ (*c* 0.24, CH_3OH)

Source of chirality: enzymatic resolution

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

Federico Berti, Fulvia Felluga, Cristina Forzato,* Giada Furlan, Patrizia Nitti, Giuliana Pitacco and Ennio Valentin*

Tetrahedron: Asymmetry *17 (2006) 2344*



$C_{28}H_{21}F_3O_4$

(1′*R*,2*R*,3*R*)-1-(9-Anthryl)-2,2,2-trifluoroethyl 2-benzyltetrahydro-5-oxo-3-furancarboxylate

Ee = >99%

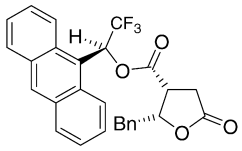
$[\alpha]_D^{25} = +86.7$ (*c* 0.15, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: (1′*R*,2*R*,3*R*)

Federico Berti, Fulvia Felluga, Cristina Forzato,* Giada Furlan, Patrizia Nitti, Giuliana Pitacco and Ennio Valentin*

Tetrahedron: Asymmetry *17 (2006) 2344*

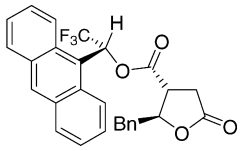


Ee = >99%
$[\alpha]_D^{25} = +95.6$ (*c* 0.25, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (1′*S*,2*R*,3*R*)

$C_{28}H_{21}F_3O_4$
(1′*S*,2*R*,3*R*)-1-(9-Anthryl)-2,2,2-trifluoroethyl 2-benzyltetrahydro-5-oxo-3-furancarboxylate

Federico Berti, Fulvia Felluga, Cristina Forzato,* Giada Furlan, Patrizia Nitti, Giuliana Pitacco and Ennio Valentin*

Tetrahedron: Asymmetry *17 (2006) 2344*

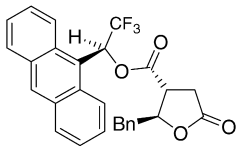


Ee = >99%
$[\alpha]_D^{25} = +7.7$ (*c* 0.13, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (1′*R*,2*S*,3*R*)

$C_{28}H_{21}F_3O_4$
(1′*R*,2*S*,3*R*)-1-(9-Anthryl)-2,2,2-trifluoroethyl 2-benzyltetrahydro-5-oxo-3-furancarboxylate

Federico Berti, Fulvia Felluga, Cristina Forzato,* Giada Furlan, Patrizia Nitti, Giuliana Pitacco and Ennio Valentin*

Tetrahedron: Asymmetry *17 (2006) 2344*

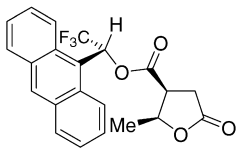


Ee = >99%
$[\alpha]_D^{25} = -22.5$ (*c* 0.40, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (1′*S*,2*S*,3*R*)

$C_{28}H_{21}F_3O_4$
(1′*S*,2*S*,3*R*)-1-(9-Anthryl)-2,2,2-trifluoroethyl 2-benzyltetrahydro-5-oxo-3-furancarboxylate

Federico Berti, Fulvia Felluga, Cristina Forzato,* Giada Furlan, Patrizia Nitti, Giuliana Pitacco and Ennio Valentin*

Tetrahedron: Asymmetry *17 (2006) 2344*

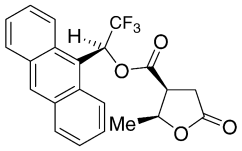


Ee = >99%
$[\alpha]_D^{25} = -72.6$ (*c* 0.72, $CHCl_3$)
Source of chirality: baker's yeast reduction
Absolute configuration: (1′*R*,2*S*,3*S*)

$C_{22}H_{17}F_3O_4$
(1′*R*,2*S*,3*S*)-1-(9-Anthryl)-2,2,2-trifluoroethyl 2-methyltetrahydro-5-oxo-3-furancarboxylate

Federico Berti, Fulvia Felluga, Cristina Forzato,* Giada Furlan, Patrizia Nitti, Giuliana Pitacco and Ennio Valentin*

Tetrahedron: Asymmetry *17 (2006) 2344*

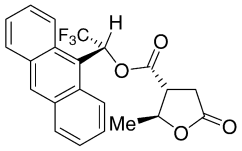


Ee = >99%
$[\alpha]_D^{25} = -36.3$ (*c* 0.60, $CHCl_3$)
Source of chirality: baker's yeast reduction
Absolute configuration: (1′*S*,2*S*,3*S*)

$C_{22}H_{17}F_3O_4$
(1′*S*,2*S*,3*S*)-1-(9-Anthryl)-2,2,2-trifluoroethyl 2-methyltetrahydro-5-oxo-3-furancarboxylate

Federico Berti, Fulvia Felluga, Cristina Forzato,* Giada Furlan, Patrizia Nitti, Giuliana Pitacco and Ennio Valentin*

Tetrahedron: Asymmetry *17 (2006) 2344*

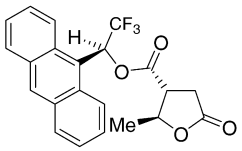


Ee = >99%
$[\alpha]_D^{25} = -8.5$ (*c* 0.20, $CHCl_3$)
Source of chirality: baker's yeast reduction
Absolute configuration: (1′*R*,2*S*,3*R*)

$C_{22}H_{17}F_3O_4$
(1′*R*,2*S*,3*R*)-1-(9-Anthryl)-2,2,2-trifluoroethyl 2-methyltetrahydro-5-oxo-3-furancarboxylate

Federico Berti, Fulvia Felluga, Cristina Forzato,* Giada Furlan, Patrizia Nitti, Giuliana Pitacco and Ennio Valentin*

Tetrahedron: Asymmetry *17 (2006) 2344*



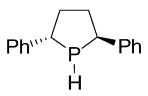
Ee = >99%
$[\alpha]_D^{25} = -1.9$ (*c* 0.26, $CHCl_3$)
Source of chirality: baker's yeast reduction
Absolute configuration: (1′*S*,2*S*,3*R*)

$C_{22}H_{17}F_3O_4$
(1′*S*,2*S*,3*R*)-1-(9-Anthryl)-2,2,2-trifluoroethyl 2-methyltetrahydro-5-oxo-3-furancarboxylate

Aurore Galland, Cristian Dobrota, Martial Toffano* and Jean-Claude Fiaud*

Tetrahedron: Asymmetry *17 (2006) 2354*

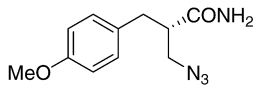
$[\alpha]_D^{20} = +104$ (*c* 0.95, $CHCl_3$)
Absolute configuration: (2*S*,5*S*)



$C_{16}H_{17}P$
(2*S*,5*S*)-(+)-2,5-Diphenylphospholane

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{11}H_{14}N_4O_2$

(*S*)-(−)-3-Azido-2-(4-methoxyphenylmethyl)propionamide

Ee >99%

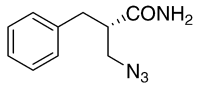
$[\alpha]_D^{25} = -29.9$ (*c* 1.625, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *S*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{10}H_{12}N_4O$

(*S*)-(−)-3-Azido-2-benzylpropionamide

Ee >99%

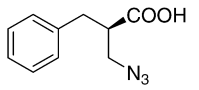
$[\alpha]_D^{25} = -31.9$ (*c* 2.950, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *S*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{10}H_{11}N_3O_2$

(*R*)-(−)-3-Azido-2-benzylpropionic acid

Ee >99%

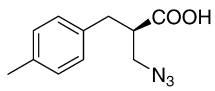
$[\alpha]_D^{25} = -29.0$ (*c* 2.000, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *R*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{11}H_{13}N_3O_2$

(*R*)-(−)-3-Azido-2-(4-methylphenylmethyl)propionic acid

Ee >99%

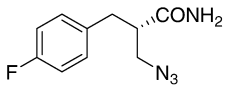
$[\alpha]_D^{25} = -34.0$ (*c* 2.705, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *R*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{10}H_{11}N_4OF$

(*S*)-(−)-3-Azido-2-(4-fluorophenylmethyl)propionamide

Ee >99%

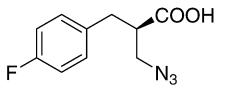
$[\alpha]_D^{25} = -34.5$ (*c* 2.495, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *S*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{10}H_{10}N_3O_2F$

(*R*)-(−)-3-Azido-2-(4-fluorophenylmethyl)propionic acid

Ee >99%

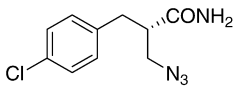
$[\alpha]_D^{25} = -27.3$ (*c* 2.125, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *R*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{10}H_{11}N_4OCl$

(*S*)-(−)-3-Azido-2-(4-chlorophenylmethyl)propionamide

Ee = 86.7%

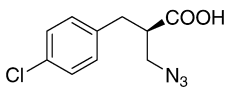
$[\alpha]_D^{25} = -29.2$ (*c* 1.370, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *S*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{10}H_{10}N_3O_2Cl$

(*R*)-(−)-3-Azido-2-(4-chlorophenylmethyl)propionic acid

Ee >99%

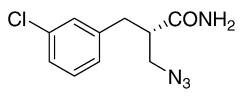
$[\alpha]_D^{25} = -24.6$ (*c* 1.055, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *R*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{10}H_{11}N_4OCl$

(*S*)-(−)-3-Azido-2-(3-chlorophenylmethyl)propionamide

Ee >99%

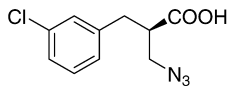
$[\alpha]_D^{25} = -33.6$ (*c* 1.250, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *S*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{10}H_{10}N_3O_2Cl$

(*R*)-(−)-3-Azido-2-(3-chlorophenylmethyl)propionic acid

Ee >99%

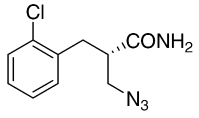
$[\alpha]_D^{25} = -31.8$ (*c* 1.130, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *R*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{10}H_{11}N_4OCl$

(*S*)-(−)-3-Azido-2-(2-chlorophenylmethyl)propionamide

Ee >99%

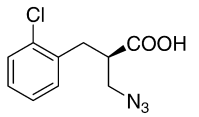
$[\alpha]_D^{25} = -39.6$ (*c* 2.575, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *S*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{10}H_{10}N_3O_2Cl$

(*R*)-(−)-3-Azido-2-(2-chlorophenylmethyl)propionic acid

Ee >99%

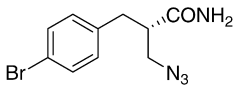
$[\alpha]_D^{25} = -29.4$ (*c* 2.855, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *R*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{10}H_{11}N_4OBr$

(*S*)-(−)-3-Azido-2-(4-bromophenylmethyl)propionamide

Ee >99%

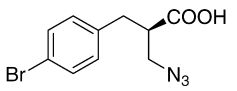
$[\alpha]_D^{25} = -29.1$ (*c* 1.445, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *S*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{10}H_{10}N_3O_2Br$

(*R*)-(−)-3-Azido-2-(4-bromophenylmethyl)propionic acid

Ee = 93.6%

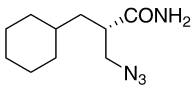
$[\alpha]_D^{25} = -29.5$ (*c* 1.220, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *R*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{10}H_{18}N_4O$

(*S**)-(−)-3-Azido-2-cyclohexylmethylpropionamide

Ee >99%

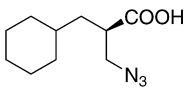
$[\alpha]_D^{25} = -28.2$ (*c* 2.800, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *S*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{10}H_{17}N_3O_2$

(*R**)-(+)-3-Azido-2-cyclohexylmethylpropionic acid

Ee = 95.6%

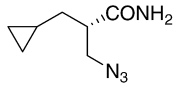
$[\alpha]_D^{25} = +6.0$ (*c* 4.300, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *R*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_7H_{12}N_4O$

(*S**)-(−)-3-Azido-2-cyclopropylmethylpropionamide

Ee = 83.0%

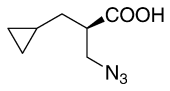
$[\alpha]_D^{25} = -29.8$ (*c* 1.945, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *S*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_7H_{11}N_3O_2$

(*R**)-3-Azido-2-cyclopropylmethylpropionic acid

Ee = 58.6%

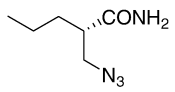
$[\alpha]_D^{25} = 0$ (*c* 2.800, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *R*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_6H_{12}N_4O$

(*S**)-(−)-2-Azidomethylpentanamide

Ee = 65.0%

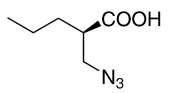
$[\alpha]_D^{25} = -12.2$ (*c* 1.880, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *S*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_6H_{11}N_3O_2$

(*R**)-(−)-2-Azidomethylpentanoic acid

Ee = 75.0%

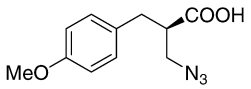
$[\alpha]_D^{25} = -2.6$ (*c* 1.175, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *R*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{11}H_{13}N_3O_3$

(*R*)-(−)-3-Azido-2-(4-methoxyphenylmethyl)propionic acid

Ee >99%

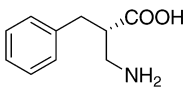
$[\alpha]_D^{25} = -38.2$ (*c* 2.010, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *R*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{10}H_{13}NO_2$

(*S*)-(−)-3-Amino-2-benzylpropionic acid

Ee >99%

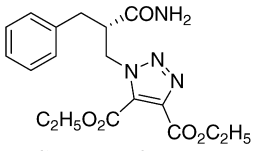
$[\alpha]_D^{25} = -17.3$ (*c* 1.850, 1 M HCl)

Source of chirality: enzymatic synthesis

Absolute configuration: *S*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{18}H_{22}N_4O_5$

(*S*)-(−)-Diethyl 1-[(2-carbamoyl-3-phenyl)propyl]-1*H*-[1,2,3]triazole-4,5-dicarboxylate

Ee >99%

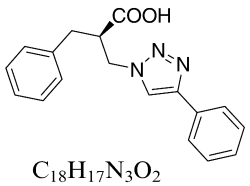
$[\alpha]_D^{25} = -72.6$ (*c* 1.350, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *S*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{18}H_{17}N_3O_2$

(*R*)-(+)-1-[(2-hydroxycarbonyl-3-phenyl)propyl]-4-phenyl-1*H*-[1,2,3]triazole

Ee >99%

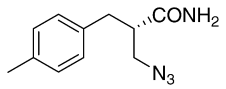
$[\alpha]_D^{25} = -7.2$ (*c* 1.955, MeOH)

Source of chirality: enzymatic synthesis

Absolute configuration: *R*

Da-You Ma, De-Xian Wang, Qi-Yu Zheng and Mei-Xiang Wang*

Tetrahedron: Asymmetry *17 (2006) 2366*



$C_{11}H_{14}N_4O$

(*S*)-(−)-3-Azido-2-(4-methylphenylmethyl)propionamide

Ee >99%

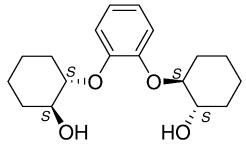
$[\alpha]_D^{25} = -34.9$ (*c* 2.980, $CHCl_3$)

Source of chirality: enzymatic synthesis

Absolute configuration: *S*

Enikő R. Tőke, Pál Kolonits, Lajos Novák and László Poppe*

Tetrahedron: Asymmetry *17 (2006) 2377*



$C_{18}H_{26}O_4$

(1*S*,2*S*,1′*S*,2′*S*)-2,2′-[1,2-Phenylenebis(oxy)]dicyclohexanol

Ee = 96% (by 500 MHz ^1H NMR using Pr shift reagent)

$[\alpha]_D^{25} = +125.5$ (*c* 1.0, $CHCl_3$)

$[\alpha]_D^{25} = +85.5$ (*c* 1.0, acetone)

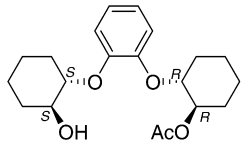
$[\alpha]_D^{25} = +65.8$ (*c* 1.0, ethanol)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: 1*S*,2*S*,1′*S*,2′*S*

Enikő R. Tőke, Pál Kolonits, Lajos Novák and László Poppe*

Tetrahedron: Asymmetry *17 (2006) 2377*



$C_{20}H_{28}O_5$

(1*R*,2*R*)-2-(2-{[(1*S*,2*S*)-2-Hydroxycyclohexyl]oxy}phenoxy)-cyclohexyl acetate

Ee = 98% (by 500 MHz ^1H NMR using Pr shift reagent)

$[\alpha]_D^{25} = +51.2$ (*c* 1.0, $CHCl_3$)

$[\alpha]_D^{25} = +21.4$ (*c* 1.0, acetone)

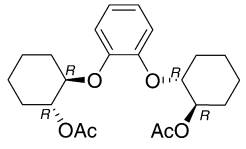
$[\alpha]_D^{25} = +28.1$ (*c* 1.0, ethanol)

Source of chirality: lipase-catalyzed asymmetric acylation

Absolute configuration: 1*R*,2*R*,(1*S*,2*S*)

Enikő R. Tőke, Pál Kolonits, Lajos Novák and László Poppe*

Tetrahedron: Asymmetry *17 (2006) 2377*



$C_{22}H_{30}O_6$

1,2-Phenylenebis[oxy(1*R*,2*R*)cyclohexane-2,1-diyl] diacetate

Ee = 99% (specific rotation of its (*R*,*R*,*R*,*R*)-diol product)

$[\alpha]_D^{25} = -8.6$ (*c* 1.0, $CHCl_3$)

$[\alpha]_D^{25} = -30.9$ (*c* 1.0, acetone)

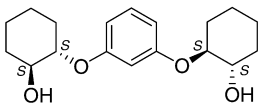
$[\alpha]_D^{25} = -6.8$ (*c* 1.0, ethanol)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: bis(1*R*,2*R*)

Enikő R. Tőke, Pál Kolonits, Lajos Novák and László Poppe*

Tetrahedron: Asymmetry *17 (2006) 2377*



$C_{18}H_{26}O_4$

(1*S*,2*S*,1′*S*,2′*S*)-2,2′-[1,3-Phenylenebis(oxy)]dicyclohexanol

Ee = 96% (by 500 MHz ^{1}H NMR using Pr shift reagent)

$[\alpha]_D^{25} = +92.4$ (*c* 1.0, $CHCl_3$)

$[\alpha]_D^{25} = +78.3$ (*c* 1.0, acetone)

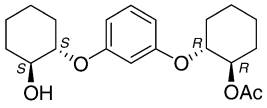
$[\alpha]_D^{25} = +92.3$ (*c* 1.0, ethanol)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: (1*S*,2*S*,1′*S*,2′*S*)

Enikő R. Tőke, Pál Kolonits, Lajos Novák and László Poppe*

Tetrahedron: Asymmetry *17 (2006) 2377*



$C_{20}H_{28}O_5$

(1*R*,2*R*)-2-(3-{[(1*S*,2*S*)-2-Hydroxycyclohexyl]oxy}phenoxy)-cyclohexyl acetate

Ee = 99% (by 500 MHz ^{1}H NMR using Pr shift reagent)

$[\alpha]_D^{25} = +34.5$ (*c* 1.0, $CHCl_3$)

$[\alpha]_D^{25} = +18.8$ (*c* 1.0, acetone)

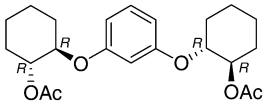
$[\alpha]_D^{25} = +25.7$ (*c* 1.0, ethanol)

Source of chirality: lipase-catalyzed asymmetric acylation

Absolute configuration: 1*R*,2*R*,(1*S*,2*S*)

Enikő R. Tőke, Pál Kolonits, Lajos Novák and László Poppe*

Tetrahedron: Asymmetry *17 (2006) 2377*



$C_{22}H_{30}O_6$

1,3-Phenylenebis[oxy(1*R*,2*R*)cyclohexane-2,1-diyl] diacetate

Ee = 99% (specific rotation of its (*R*,*R*,*R*,*R*)-diol product)

$[\alpha]_D^{25} = -3.1$ (*c* 1.0, $CHCl_3$)

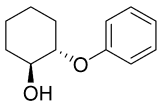
$[\alpha]_D^{25} = -8.8$ (*c* 1.0, acetone)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: bis(1*R*,2*R*)

Enikő R. Tőke, Pál Kolonits, Lajos Novák and László Poppe*

Tetrahedron: Asymmetry *17 (2006) 2377*



$C_{12}H_{16}O_2$

(+)-(1*S*,2*S*)-2-Phenoxycyclohexanol

Ee >99% (by GC on Hydrodex-β-6-TBDM column)

$[\alpha]_D^{25} = +90.8$ (*c* 1.0, $CHCl_3$)

$[\alpha]_D^{25} = +43.9$ (*c* 1.0, acetone)

$[\alpha]_D^{25} = +69.5$ (*c* 1.0, ethanol)

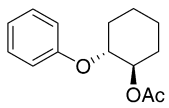
$[\alpha]_D^{25} = +72.7$ (*c* 1.0, methanol)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: 1*S*,2*S*

Enikő R. Tőke, Pál Kolonits, Lajos Novák and László Poppe*

Tetrahedron: Asymmetry *17 (2006) 2377*



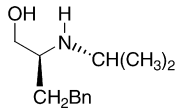
$C_{14}H_{18}O_3$

(−)-(1*R*,2*R*)-2-Phenoxycyclohexyl acetate

Ee = 96% (by GC on Hydrodex-β-6-TBDM column)
$[\alpha]_D^{25} = -5.2$ (*c* 1.0, $CHCl_3$)
$[\alpha]_D^{25} = -15.2$ (*c* 1.0, acetone)
$[\alpha]_D^{25} = -10.0$ (*c* 1.0, ethanol)
Source of chirality: lipase-catalyzed kinetic resolution
Absolute configuration: 1*R*,2*R*

Delvis D. Dore, James R. Burgeson, Ryan A. Davis and Shawn R. Hitchcock*

Tetrahedron: Asymmetry *17 (2006) 2386*



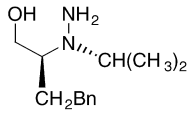
$C_{12}H_{19}NO$

(*S*)-2-*N*-Isopropylamino-3-phenyl-1-propanol

$[\alpha]_D^{25} = +6.6$ (*c* 0.38, $CHCl_3$)
Source of chirality: L-phenylalanine
Absolute configuration: (*S*)

Delvis D. Dore, James R. Burgeson, Ryan A. Davis and Shawn R. Hitchcock*

Tetrahedron: Asymmetry *17 (2006) 2386*



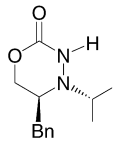
$C_{12}H_{20}N_2O$

(*S*)-2-*N*-Isopropylhydrazino-3-phenyl-1-propanol

$[\alpha]_D^{25} = +7.5$ (*c* 0.36, $CHCl_3$)
Source of chirality: L-phenylalanine
Absolute configuration: (*S*)

Delvis D. Dore, James R. Burgeson, Ryan A. Davis and Shawn R. Hitchcock*

Tetrahedron: Asymmetry *17 (2006) 2386*



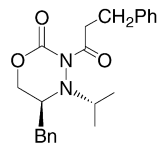
$C_{13}H_{18}N_2O_2$

(4*R*,5*S*)-5-Benzyl-4-isopropyl-2*H*-1,3,4-oxadiazinan-2-one

$[\alpha]_D^{25} = +24.7$ (*c* 0.36, $CHCl_3$)
Source of chirality: L-phenylalanine
Absolute configuration: (4*R*,5*S*)

Delvis D. Dore, James R. Burgeson, Ryan A. Davis and Shawn R. Hitchcock*

Tetrahedron: Asymmetry *17 (2006) 2386*



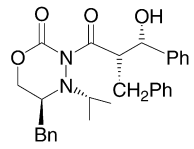
$[\alpha]_D^{25} = -61.6$ (*c* 0.30, $CHCl_3$)
Source of chirality: L-phenylalanine
Absolute configuration: (4*R*,5*S*)

$C_{22}H_{26}N_2O_3$

(4*R*,5*S*)-5-Benzyl-4-isopropyl-3-(3-phenylpropanoyl)-2*H*-1,3,4-oxadiazin-2-one

Delvis D. Dore, James R. Burgeson, Ryan A. Davis and Shawn R. Hitchcock*

Tetrahedron: Asymmetry *17 (2006) 2386*



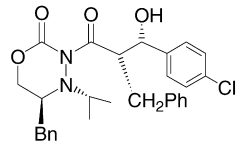
$[\alpha]_D^{29} = -130.9$ (*c* 1.39, $CHCl_3$)
Source of chirality: L-phenylalanine
Absolute configuration: (2′*S*,3′*S*,4*R*,5*S*)

$C_{29}H_{32}N_2O_4$

(2′*S*,3′*S*,4*R*,5*S*)-5-Benzyl-3-[2-benzyl-3-hydroxy-3-phenylpropanoyl]-4-isopropyl-2*H*-1,3,4-oxadiazinan-2-one

Delvis D. Dore, James R. Burgeson, Ryan A. Davis and Shawn R. Hitchcock*

Tetrahedron: Asymmetry *17 (2006) 2386*



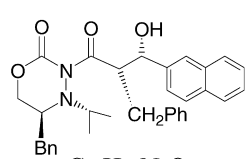
$[\alpha]_D^{29} = -125.5$ (*c* 0.58, $CHCl_3$)
Source of chirality: L-phenylalanine
Absolute configuration: (2′*S*,3′*S*,4*R*,5*S*)

$C_{29}H_{31}N_2O_4Cl$

(2′*S*,3′*S*,4*R*,5*S*)-5-Benzyl-3-[2-benzyl-3-hydroxy-3-(4-chlorophenyl)propanoyl]-4-isopropyl-2*H*-1,3,4-oxadiazinan-2-one

Delvis D. Dore, James R. Burgeson, Ryan A. Davis and Shawn R. Hitchcock*

Tetrahedron: Asymmetry *17 (2006) 2386*



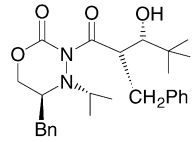
$[\alpha]_D^{29} = -81.9$ (*c* 0.74, $CHCl_3$)
Source of chirality: L-phenylalanine
Absolute configuration: (2′*S*,3′*S*,4*R*,5*S*)

$C_{33}H_{34}N_2O_4$

(2′*S*,3′*S*,4*R*,5*S*)-5-Benzyl-3-[2-benzyl-3-hydroxy-3-(2-naphthyl)propanoyl]-4-isopropyl-2*H*-1,3,4-oxadiazinan-2-one

Delvis D. Dore, James R. Burgeson, Ryan A. Davis and Shawn R. Hitchcock*

Tetrahedron: Asymmetry *17 (2006) 2386*



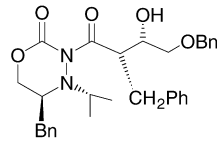
$[\alpha]_D^{29} = -180.1$ (c 0.67, $CHCl_3$)
Source of chirality: L-phenylalanine
Absolute configuration: (2′*S*,3′*S*,4*R*,5*S*)

$C_{27}H_{36}N_2O_4$

(2′*S*,3′*S*,4*R*,5*S*)-5-Benzyl-3-[2-benzyl-3-hydroxy-4,4-dimethylpentanoyl]-4-isopropyl-2*H*-1,3,4-oxadiazinan-2-one

Delvis D. Dore, James R. Burgeson, Ryan A. Davis and Shawn R. Hitchcock*

Tetrahedron: Asymmetry *17 (2006) 2386*



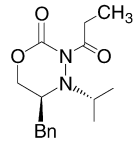
$[\alpha]_D^{25} = -103.5$ (c 0.28, $CHCl_3$)
Source of chirality: L-phenylalanine
Absolute configuration: (2′*S*,3′*S*,4*R*,5*S*)

$C_{31}H_{36}N_2O_5$

(2′*S*,3′*S*,4*R*,5*S*)-5-Benzyl-3-(2-benzyl-4-benzyloxy-3-hydroxybutanoyl)-4-isopropyl-2*H*-1,3,4-oxadiazinan-2-one

Delvis D. Dore, James R. Burgeson, Ryan A. Davis and Shawn R. Hitchcock*

Tetrahedron: Asymmetry *17 (2006) 2386*



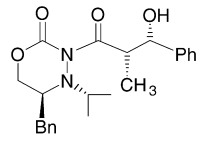
$[\alpha]_D^{29} = -167.5$ (c 5.5, $CHCl_3$)
Source of chirality: L-phenylalanine
Absolute configuration: (4*R*,5*S*)

$C_{16}H_{22}N_2O_3$

(4*R*,5*S*)-5-Benzyl-4-isopropyl-3-propanoyl-2*H*-1,3,4-oxadiazinan-2-one

Delvis D. Dore, James R. Burgeson, Ryan A. Davis and Shawn R. Hitchcock*

Tetrahedron: Asymmetry *17 (2006) 2386*



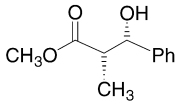
$[\alpha]_D^{29} = -92.2$ (c 1.39, $CHCl_3$)
Source of chirality: L-phenylalanine
Absolute configuration: (2′*S*,3′*S*,4*R*,5*S*)

$C_{23}H_{28}N_2O_4$

(2′*S*,3′*S*,4*R*,5*S*)-5-Benzyl-3-(3-hydroxy-2-methyl-3-phenylpropanoyl)-4-isopropyl-2*H*-1,3,4-oxadiazinan-2-one

Delvis D. Dore, James R. Burgeson, Ryan A. Davis and Shawn R. Hitchcock*

Tetrahedron: Asymmetry *17 (2006) 2386*



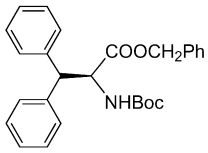
$C_{10}H_{14}O_3$

(2*S*,3*S*)-Methyl 3-hydroxy-2-methyl-3-phenylpropanoate

$[\alpha]_D^{29} = -11.6$ (*c* 0.74, $CHCl_3$)
Source of chirality: L-phenylalanine
Absolute configuration: (2*S*,3*S*)

Soledad Royo, Ana I. Jiménez and Carlos Cativiela*

Tetrahedron: Asymmetry *17 (2006) 2393*



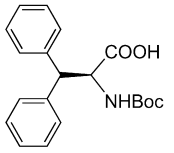
$C_{27}H_{29}NO_4$

Benzyl (*S*)-2-(*N*-*tert*-butoxycarbonylamino)-3,3-diphenylpropanoate

Ee ⩾99%
$[\alpha]_D^{25} = +33.4$ (*c* 0.62, $CHCl_3$)
Source of chirality: resolution by chiral HPLC
Absolute configuration: (*S*)

Soledad Royo, Ana I. Jiménez and Carlos Cativiela*

Tetrahedron: Asymmetry *17 (2006) 2393*



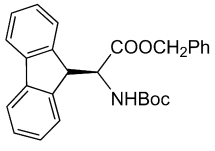
$C_{20}H_{23}NO_4$

(*S*)-2-(*N*-*tert*-Butoxycarbonylamino)-3,3-diphenylpropanoic acid

Ee ⩾99%
$[\alpha]_D^{23} = +36.7$ (*c* 0.59, MeOH)
Source of chirality: resolution by chiral HPLC
Absolute configuration: (*S*)

Soledad Royo, Ana I. Jiménez and Carlos Cativiela*

Tetrahedron: Asymmetry *17 (2006) 2393*



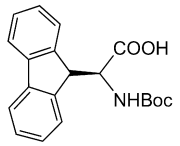
$C_{27}H_{27}NO_4$

Benzyl (*S*)-2-(*N*-*tert*-butoxycarbonylamino)-2-(9-fluorenyl)acetate

Ee ⩾99%
$[\alpha]_D^{25} = +3.4$ (*c* 0.61, $CHCl_3$)
Source of chirality: resolution by chiral HPLC
Absolute configuration: (*S*)

Soledad Royo, Ana I. Jiménez and Carlos Cativiela*

Tetrahedron: Asymmetry *17 (2006) 2393*



$C_{20}H_{21}NO_4$

(*S*)-2-(*N*-*tert*-Butoxycarbonylamino)-2-(9-fluorenyl)acetic acid

Ee ⩾99%

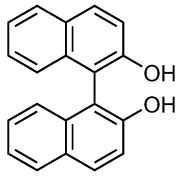
$[\alpha]_D^{23} = +53.9$ (*c* 0.60, MeOH)

Source of chirality: resolution by chiral HPLC

Absolute configuration: (*S*)

Xiao-Ya Yuan, Hai-Yan Li, Philip Hodge,* Michael Kilner, Christophe Y. Tastard and Zheng-Pu Zhang*

Tetrahedron: Asymmetry *17 (2006) 2401*



$C_{20}H_{14}O_2$

(*R*)-1,1′-Bi(2-naphthol)

Ee = 100%

$[\alpha]_D^{21} = +29.5$ (*c* 1.00, THF)

Source of chirality: resolution using *N*-benzyl-cinchonidinium chloride

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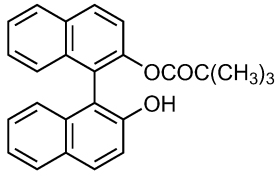
Tetrahedron: Asymmetry *17 (2006) 2401*



$C_{25}H_{22}O_3$

(*R*)-1,1′-Bi(2-naphthol) monopivalate

Ee = 100%

$[\alpha]_D^{23} = +58.0$ (*c* 1.00, THF)

Source of chirality: esterification of *R*-1,1′-bi(2-naphthol)

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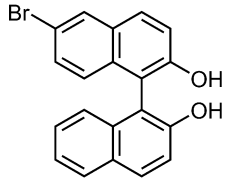

$C_{20}H_{13}BrO_2$

6-Bromo-(*S*)-1,1′-bi(2-naphthol)

Ee = 100%

$[\alpha]_D^{21} = +7.6$ (*c* 1.00, THF)

Source of chirality: bromination of (*S*)-1,1′-bi(2-naphthol) monopivalate followed by ester hydrolysis

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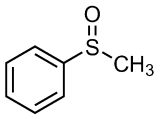

C_7H_8OS

(*R*)-Methyl phenyl sulfoxide

Ee = 84%

$[\alpha]_D^{20} = +133.7$ (*c* 1.00, acetone)

Source of chirality: catalyzed oxidation of methyl phenyl ether

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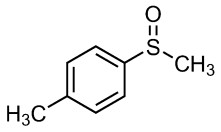
Tetrahedron: Asymmetry *17 (2006) 2401*



$C_8H_{10}OS$

(*R*)-Methyl 4-methylphenyl sulfoxide

Ee = 90%

$[\alpha]_D^{25} = +128.0$ (*c* 1.00, 95% ethanol)

Source of chirality: catalyzed oxidation of methyl 4-methylphenyl ether

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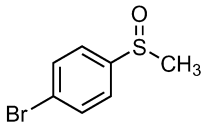

C_7H_7BrOS

(*S*)-Methyl 4-bromophenyl sulfoxide

Ee = 71%

$[\alpha]_D^{25} = -76.0$ (*c* 0.50, chloroform)

Source of chirality: catalyzed oxidation of methyl 4-bromophenyl ether

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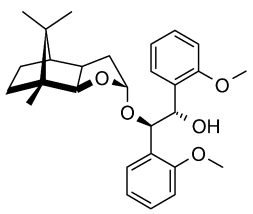

$C_{28}H_{36}O_5$

[(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]-1,2-Bis(2-methoxyphenyl)-2-[(octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-yl)oxy]-ethanol

Ee = >98%

$[\alpha]_D^{20} = -77.9$ (*c* 1.49, CH_2Cl_2)

Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: [(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]

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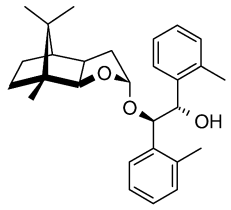
Tetrahedron: Asymmetry *17 (2006) 2413*



$C_{28}H_{36}O_3$

Ee = >98%

$[\alpha]_D^{20} = -95.7$ (*c* 0.90, CH_2Cl_2)

Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: [(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]

[(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]-1,2-Bis(2-methylphenyl)-2-[(octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-yl)oxy]ethanol

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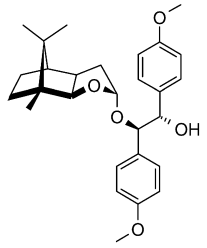
Tetrahedron: Asymmetry *17 (2006) 2413*



$C_{28}H_{36}O_5$

Ee = >98%

$[\alpha]_D^{20} = -73.0$ (*c* 0.95, CH_2Cl_2)

Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: [(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]

[(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]-1,2-Bis(4-methoxyphenyl)-2-[(octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-yl)oxy]-ethanol

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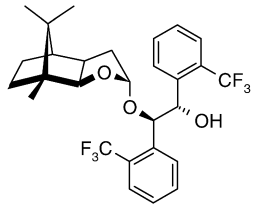

$C_{28}H_{30}O_3$

Ee = >98%

$[\alpha]_D^{20} = -85.6$ (*c* 1.95, CH_2Cl_2)

Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: [(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]

[(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]-2-[(Octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-yl)oxy]-1,2-bis(2-trifluoromethylphenyl)ethanol

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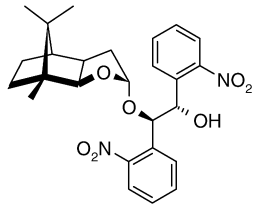

$C_{28}H_{30}N_2O_7$

Ee = >98%

$[\alpha]_D^{20} = -16.4$ (*c* 0.50, CH_2Cl_2)

Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: [(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]

[(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]-1,2-Bis(2-nitrophenyl)-2-[(octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-yl)oxy]ethanol

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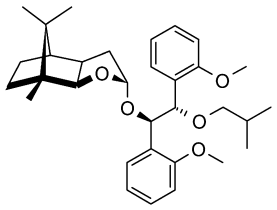

$C_{32}H_{44}O_5$

Ee = >98%

$[\alpha]_D^{20} = -51.9$ (*c* 1.08, CH_2Cl_2)

Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: [(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]

2-[[(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]-1,2-Bis(2-methoxyphenyl)-2-(2-methylpropoxy)ethoxy]octahydro-7,8,8-trimethyl-4,7-methanobenzofuran

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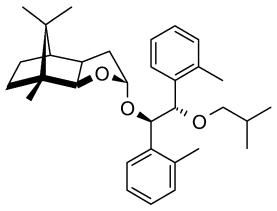
Tetrahedron: Asymmetry *17 (2006) 2413*



$C_{32}H_{44}O_3$

Ee = >98%

$[\alpha]_D^{20} = -67.4$ (*c* 0.80, CH_2Cl_2)

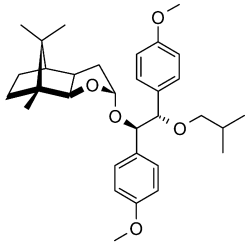
Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: [(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]

2-[[(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]-1,2-Bis(2-methylphenyl)-2-(2-methylpropoxy)ethoxy]octahydro-7,8,8-trimethyl-4,7-methanobenzofuran

Joachim Broeker, Max Knollmueller and Peter Gaertner*

Tetrahedron: Asymmetry *17 (2006) 2413*



$C_{32}H_{44}O_5$

Ee = >98%

$[\alpha]_D^{20} = -66.9$ (*c* 4.70, CH_2Cl_2)

Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: [(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]

2-[[(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]-1,2-Bis(4-methoxyphenyl)-2-(2-methylpropoxy)ethoxy]octahydro-7,8,8-trimethyl-4,7-methanobenzofuran

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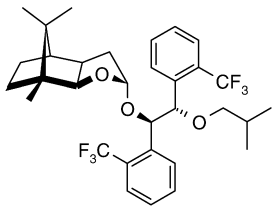
Tetrahedron: Asymmetry *17 (2006) 2413*



$C_{32}H_{38}F_6O_3$

Ee = >98%

$[\alpha]_D^{20} = -53.7$ (*c* 1.80, CH_2Cl_2)

Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: [(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]

2-[[(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]-2-(2-Methylpropoxy)-1,2-bis(2-trifluoromethylphenyl)ethoxy]octahydro-7,8,8-trimethyl-4,7-methanobenzofuran

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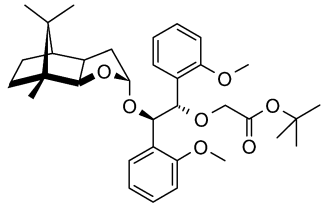
Tetrahedron: Asymmetry *17 (2006) 2413*



$C_{34}H_{46}O_7$

Ee = >98%

$[\alpha]_D^{20} = -66.5$ (*c* 1.03, CH_2Cl_2)

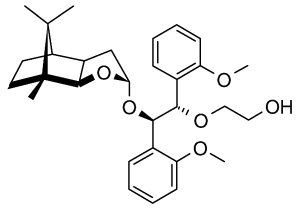
Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: [(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]

[[(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]-1,2-Bis(2-methoxyphenyl)-2-(octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-yl-oxy)-ethoxy]acetic acid, 1,1-dimethylethyl ester

Joachim Broeker, Max Knollmueller and Peter Gaertner*

Tetrahedron: Asymmetry *17 (2006) 2413*



$C_{30}H_{40}O_6$

Ee = >98%

$[\alpha]_D^{20} = -61.9$ (*c* 1.40, CH_2Cl_2)

Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: [(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]

[[(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]-1,2-Bis(2-methoxyphenyl)-2-[(octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-yl)oxy]-2-ethoxy]ethanol

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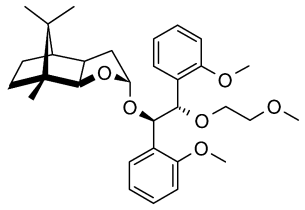
Tetrahedron: Asymmetry *17 (2006) 2413*



$C_{31}H_{42}O_6$

Ee = >98%

$[\alpha]_D^{20} = -85.4$ (*c* 1.05, CH_2Cl_2)

Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: [(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]

2-[[(2*S*)-(2α(1*R**,2*S**),3aα,4β,7β,7aα)]-2-(2-Methoxyethoxy)-1,2-bis(2-methoxyphenyl)ethoxy]octahydro-7,8,8-trimethyl-4,7-methanobenzofuran

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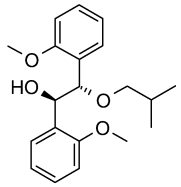
Tetrahedron: Asymmetry *17 (2006) 2413*



$C_{20}H_{26}O_4$

Ee = >98%

$[\alpha]_D^{20} = +29.8$ (*c* 0.84, CH_2Cl_2)

Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: (1*R*,2*S*)

(1*R*,2*S*)-1,2-Bis(2-methoxyphenyl)-2-(2-methylpropoxy)ethanol

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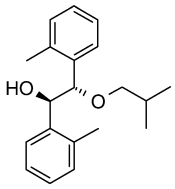
Tetrahedron: Asymmetry *17 (2006) 2413*



$C_{20}H_{26}O_2$

(1*R*,2*S*)-1,2-Bis(2-methylphenyl)-2-(2-methylpropoxy)ethanol

Ee = >98%

$[\alpha]_D^{20} = +37.3$ (*c* 1.26, CH_2Cl_2)

Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: (1*R*,2*S*)

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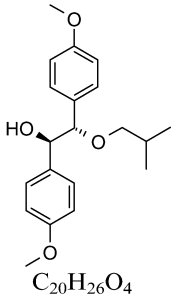
Tetrahedron: Asymmetry *17 (2006) 2413*



$C_{20}H_{26}O_4$

(1*R*,2*S*)-1,2-Bis(4-methoxyphenyl)-2-(2-methylpropoxy)ethanol

Ee = >98%

$[\alpha]_D^{20} = +25.4$ (*c* 0.90, CH_2Cl_2)

Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: (1*R*,2*S*)

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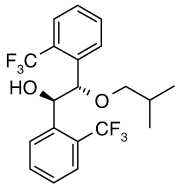
Tetrahedron: Asymmetry *17 (2006) 2413*



$C_{20}H_{20}F_6O_2$

(1*R*,2*S*)-2-(2-Methylpropoxy)-1,2-bis(2-trifluoromethylphenyl)ethanol

Ee = >98%

$[\alpha]_D^{20} = +34.3$ (*c* 0.40, CH_2Cl_2)

Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: (1*R*,2*S*)

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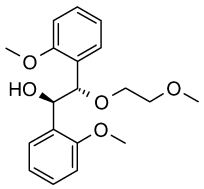


$C_{19}H_{24}O_5$

(1*R*,2*S*)-2-(2-Methoxyethoxy)-1,2-bis(2-methoxyphenyl)ethanol

Ee = >98%

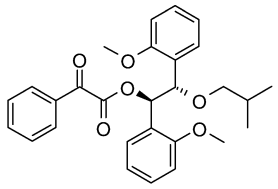
$[\alpha]_D^{20} = +17.3$ (*c* 1.00, CH_2Cl_2)

Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: (1*R*,2*S*)

Joachim Broeker, Max Knollmueller and Peter Gaertner*

Tetrahedron: Asymmetry *17 (2006) 2413*



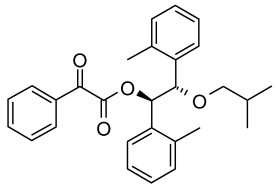
Ee = >98%
$[\alpha]_D^{20} = +51.8$ (*c* 1.10, CH_2Cl_2)
Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol
Absolute configuration: (1*R*,2*S*)

$C_{28}H_{30}O_6$

Oxophenylacetic acid, (1*R*,2*S*)-1,2-bis(2-methoxyphenyl)-2-(2-methylpropoxy)ethyl ester

Joachim Broeker, Max Knollmueller and Peter Gaertner*

Tetrahedron: Asymmetry *17 (2006) 2413*



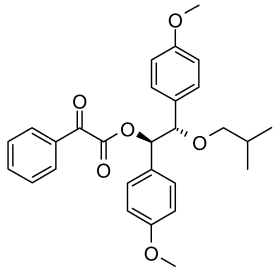
Ee = >98%
$[\alpha]_D^{20} = +46.9$ (*c* 1.13, CH_2Cl_2)
Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol
Absolute configuration: (1*R*,2*S*)

$C_{28}H_{30}O_4$

Oxophenylacetic acid, (1*R*,2*S*)-1,2-bis(2-methylphenyl)-2-(2-methylpropoxy)ethyl ester

Joachim Broeker, Max Knollmueller and Peter Gaertner*

Tetrahedron: Asymmetry *17 (2006) 2413*



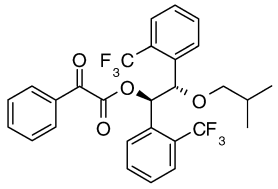
Ee = >98%
$[\alpha]_D^{20} = +17.1$(*c* 0.55, CH_2Cl_2)
Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol
Absolute configuration: (1*R*,2*S*)

$C_{28}H_{30}O_6$

Oxophenylacetic acid, (1*R*,2*S*)-1,2-bis(4-methoxyphenyl)-2-(2-methylpropoxy)ethyl ester

Joachim Broeker, Max Knollmueller and Peter Gaertner*

Tetrahedron: Asymmetry *17 (2006) 2413*



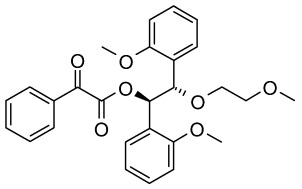
Ee = >98%
$[\alpha]_D^{20} = +10.8$ (*c* 1.15, CH_2Cl_2)
Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol
Absolute configuration: (1*R*,2*S*)

$C_{28}H_{24}F_6O_3$

Oxophenylacetic acid, (1*R*,2*S*)-2-(2-methylpropoxy)-1,2-bis(2-trifluoromethylphenyl)ethyl ester

Joachim Broeker, Max Knollmueller and Peter Gaertner*

Tetrahedron: Asymmetry *17 (2006) 2413*



$C_{27}H_{28}O_7$

Oxophenylacetic acid, (1*R*,2*S*)-2-(2-methoxyethoxy)-1,2-bis(2-methoxyphenyl)ethyl ester

Ee = >98%

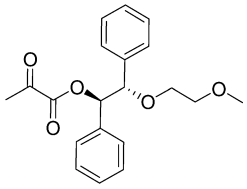
$[\alpha]_D^{20} = +34.9$ (*c* 0.80, CH_2Cl_2)

Source of chirality: [(2*R*)-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: (1*R*,2*S*)

Christian Schuster, Max Knollmueller and Peter Gaertner*

Tetrahedron: Asymmetry *17 (2006) 2430*



$C_{20}H_{22}O_5$

2-Oxophenylacetic acid, (1*R*,2*S*)-2-(2-methoxyethoxy)-1,2-diphenylethyl ester

Ee = >98%

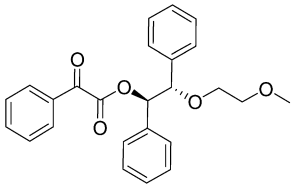
$[\alpha]_D^{20} = -2.4$ (*c* 0.99, CH_2Cl_2)

Source of chirality: [2*R*-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: (1*R*,2*S*)

Christian Schuster, Max Knollmueller and Peter Gaertner*

Tetrahedron: Asymmetry *17 (2006) 2430*



$C_{25}H_{24}O_5$

Oxophenylacetic acid, (1*R*,2*S*)-2-(2-methoxyethoxy)-1,2-diphenylethyl ester

Ee = >98%

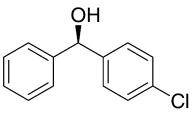
$[\alpha]_D^{20} = +18.6$ (*c* 0.71, CH_2Cl_2)

Source of chirality: [2*R*-(2α,3aα,4β,7β,7aα)]-octahydro-7,8,8-trimethyl-4,7-methanobenzofuran-2-ol

Absolute configuration: (1*R*,2*S*)

Zhuo Chai, Xin-Yuan Liu, Xiao-Yu Wu and Gang Zhao*

Tetrahedron: Asymmetry *17 (2006) 2442*



(*R*)-(4-Chlorophenyl)(phenyl)methanol

Ee = 82%

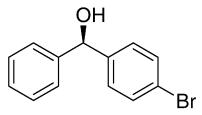
$[\alpha]_D^{20} = -15.4$ (*c* 0.80, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (*R*)

Zhuo Chai, Xin-Yuan Liu, Xiao-Yu Wu and Gang Zhao*

Tetrahedron: Asymmetry *17 (2006) 2442*

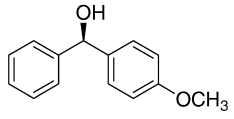


(*R*)-(4-Bromophenyl)(phenyl)methanol

Ee = 72%
$[\alpha]_D^{25} = -16.4$ (*c* 0.87, PhH)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*)

Zhuo Chai, Xin-Yuan Liu, Xiao-Yu Wu and Gang Zhao*

Tetrahedron: Asymmetry *17 (2006) 2442*

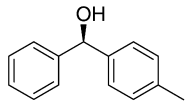


(*R*)-(4-Methoxyphenyl)(phenyl)methanol

Ee = 78%
$[\alpha]_D^{25} = +11.4$ (*c* 0.67, PhH)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*)

Zhuo Chai, Xin-Yuan Liu, Xiao-Yu Wu and Gang Zhao*

Tetrahedron: Asymmetry *17 (2006) 2442*

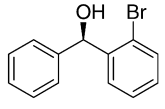


(*R*)-Phenyl(*p*-tolyl)methanol

Ee = 75%
$[\alpha]_D^{25} = +6.1$ (*c* 0.50, PhH)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*)

Zhuo Chai, Xin-Yuan Liu, Xiao-Yu Wu and Gang Zhao*

Tetrahedron: Asymmetry *17 (2006) 2442*

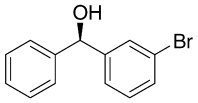


(*R*)-(2-Bromophenyl)(phenyl)methanol

Ee = 65%
$[\alpha]_D^{25} = +36.1$ (*c* 1.10, acetone)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*)

Zhuo Chai, Xin-Yuan Liu, Xiao-Yu Wu and Gang Zhao*

Tetrahedron: Asymmetry *17 (2006) 2442*

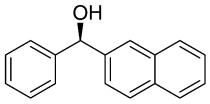


(*R*)-(3-Bromophenyl)(phenyl)methanol

Ee = 65%
$[\alpha]_D^{25} = -18.1$ (*c* 1.10, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*)

Zhuo Chai, Xin-Yuan Liu, Xiao-Yu Wu and Gang Zhao*

Tetrahedron: Asymmetry *17 (2006) 2442*

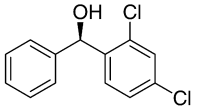


(*R*)-Naphthalen-2-yl(phenyl)methanol

Ee = 73%
$[\alpha]_D^{25} = +4.1$ (*c* 0.82, PhH)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*)

Zhuo Chai, Xin-Yuan Liu, Xiao-Yu Wu and Gang Zhao*

Tetrahedron: Asymmetry *17 (2006) 2442*

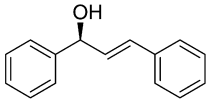


(*R*)-(2,4-Dichlorophenyl)(phenyl)methanol

Ee = 60%
$[\alpha]_D^{25} = +4.6$ (*c* 3.35, acetone)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*)

Zhuo Chai, Xin-Yuan Liu, Xiao-Yu Wu and Gang Zhao*

Tetrahedron: Asymmetry *17 (2006) 2442*



(*S*,*E*)-1,3-Diphenylprop-2-en-1-ol

Ee = 74%
$[\alpha]_D^{25} = -28.1$ (*c* 0.44, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*)