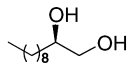
Annalisa Guaragna,* Mauro De Nisco, Silvana Pedatella and Giovanni Palumbo

Tetrahedron: Asymmetry *17 (2006) 2839*



$C_{11}H_{24}O_2$
(*R*)-(−)-Undecane-1,2-diol

Ee 90% (NMR)
$[\alpha]_D^{25} = -6.2$ (*c* 2.9, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*)

Annalisa Guaragna,* Mauro De Nisco, Silvana Pedatella and Giovanni Palumbo

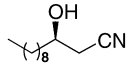
Tetrahedron: Asymmetry *17 (2006) 2839*

$C_{11}H_{22}O$
(*R*)-(+)-1,2-Epoxyundecane

Ee 90%
$[\alpha]_D^{25} = -9.7$ (neat)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*)

Annalisa Guaragna,* Mauro De Nisco, Silvana Pedatella and Giovanni Palumbo

Tetrahedron: Asymmetry *17 (2006) 2839*

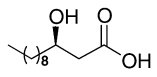


$C_{12}H_{23}NO$
(*R*)-(−)-3-Hydroxydodecanenitrile

Ee 88% (NMR)
$[\alpha]_D^{25} = -4.3$ (*c* 3, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*)

Annalisa Guaragna,* Mauro De Nisco, Silvana Pedatella and Giovanni Palumbo

Tetrahedron: Asymmetry *17 (2006) 2839*

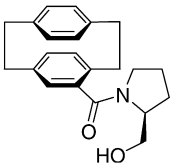


$C_{12}H_{24}O_3$
(*R*)-(−)-3-Hydroxydodecanoic acid

Ee >99%
$[\alpha]_D^{25} = -17.8$ (*c* 1.25, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (*R*)

Shigeo Sugiyama,* Yoshinori Aoki and Keitaro Ishii*

Tetrahedron: Asymmetry *17 (2006) 2847*

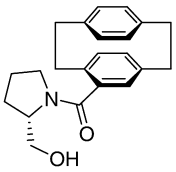


Ee >98%
$[\alpha]_D^{24} = +3.3$ (*c* 0.7, $CHCl_3$)
Source of chirality: (*S*)-prolinol
Absolute configuration: (S_p,*S*)

$C_{22}H_{25}NO_2$
(*S*)-2-Hydroxymethyl-1-{(S_p)-[2.2]paracyclophane-4-carbonyl}pyrrolidine

Shigeo Sugiyama,* Yoshinori Aoki and Keitaro Ishii*

Tetrahedron: Asymmetry *17 (2006) 2847*

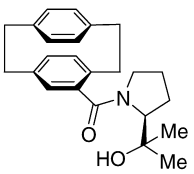


Ee >98%
$[\alpha]_D^{24} = -119$ (*c* 0.8, $CHCl_3$)
Source of chirality: (*S*)-prolinol
Absolute configuration: (R_p,*S*)

$C_{22}H_{25}NO_2$
(*S*)-2-Hydroxymethyl-1-{(R_p)-[2.2]paracyclophane-4-carbonyl}pyrrolidine

Shigeo Sugiyama,* Yoshinori Aoki and Keitaro Ishii*

Tetrahedron: Asymmetry *17 (2006) 2847*

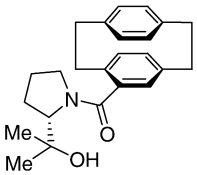


Ee >98%
$[\alpha]_D^{23} = -22.0$ (*c* 1.2, $CHCl_3$)
Source of chirality: (*S*)-1-methyl-1-(pyrrolidin-4-yl)-ethanol
Absolute configuration: (S_p,*S*)

$C_{24}H_{29}NO_2$
(*S*)-2-(1-Hydroxy-1-methyl)ethyl-1-{(S_p)-[2.2]paracyclophane-4-carbonyl}pyrrolidine

Shigeo Sugiyama,* Yoshinori Aoki and Keitaro Ishii*

Tetrahedron: Asymmetry *17 (2006) 2847*

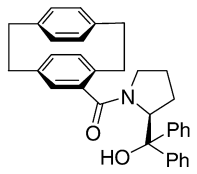


Ee >98%
$[\alpha]_D^{24} = -145$ (*c* 1.3, $CHCl_3$)
Source of chirality: (*S*)-1-methyl-1-(pyrrolidin-4-yl)-ethanol
Absolute configuration: (R_p,*S*)

$C_{24}H_{29}NO_2$
(*S*)-2-(1-Hydroxy-1-methyl)ethyl-1-{(R_p)-[2.2]paracyclophane-4-carbonyl}pyrrolidine

Shigeo Sugiyama,* Yoshinori Aoki and Keitaro Ishii*

Tetrahedron: Asymmetry *17 (2006) 2847*

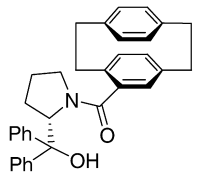


Ee >98%
$[\alpha]_D^{25} = -7.1$ (*c* 1.0, $CHCl_3$)
Source of chirality: (*S*)-α,α-diphenyl-2-pyrolidine-methanol
Absolute configuration: (S_p,*S*)

$C_{34}H_{35}NO_2$
(*S*)-2-(1,1-Diphenyl-1-hydroxy)methyl-1-{(S_p)-[2.2]paracyclophane-4-carbonyl}pyrrolidine

Shigeo Sugiyama,* Yoshinori Aoki and Keitaro Ishii*

Tetrahedron: Asymmetry *17 (2006) 2847*

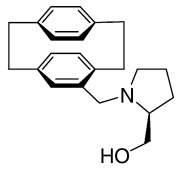


Ee >98%
$[\alpha]_D^{26} = -70.9$ (*c* 1.4, $CHCl_3$)
Source of chirality: (*S*)-α,α-diphenyl-2-pyrolidine-methanol
Absolute configuration: (R_p,*S*)

$C_{34}H_{35}NO_2$
(*S*)-2-(1,1-Diphenyl-1-hydroxy)methyl-1-{(R_p)-[2.2]paracyclophane-4-carbonyl}pyrrolidine

Shigeo Sugiyama,* Yoshinori Aoki and Keitaro Ishii*

Tetrahedron: Asymmetry *17 (2006) 2847*

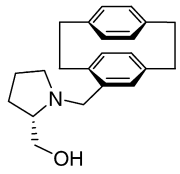


Ee >98%
$[\alpha]_D^{28} = +27.6$ (*c* 0.6, $CHCl_3$)
Source of chirality: (*S*)-prolinol
Absolute configuration: (S_p,*S*)

$C_{22}H_{27}NO$
(*S*)-[1-{(S_p)-[2.2]Paracyclophan-4-yl}methylpyrrolidin-2-yl]methanol

Shigeo Sugiyama,* Yoshinori Aoki and Keitaro Ishii*

Tetrahedron: Asymmetry *17 (2006) 2847*

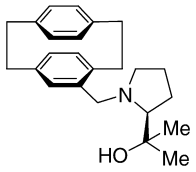


Ee >98%
$[\alpha]_D^{24} = -93.4$ (*c* 0.5, $CHCl_3$)
Source of chirality: (*S*)-prolinol
Absolute configuration: (R_p,*S*)

$C_{22}H_{27}NO$
(*S*)-[1-{(R_p)-[2.2]Paracyclophan-4-yl}methylpyrrolidin-2-yl]methanol

Shigeo Sugiyama,* Yoshinori Aoki and Keitaro Ishii*

Tetrahedron: Asymmetry *17 (2006) 2847*



Ee >98%

$[\alpha]_D^{27} = +32.7$ (c 0.3, $CHCl_3$)

Source of chirality: (*S*)-1-methyl-1-(pyrrolidin-4-yl)-ethanol

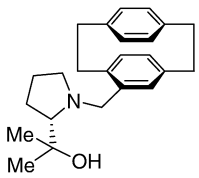
Absolute configuration: (S_p,*S*)

$C_{24}H_{31}NO$

(*S*)-1-Methyl-1-[1-{(S_p)-[2.2]paracyclophan-4-yl}methylpyrrolidin-2-yl]ethanol

Shigeo Sugiyama,* Yoshinori Aoki and Keitaro Ishii*

Tetrahedron: Asymmetry *17 (2006) 2847*



Ee >98%

$[\alpha]_D^{27} = -85.1$ (c 0.8, $CHCl_3$)

Source of chirality: (*S*)-1-methyl-1-(pyrrolidin-4-yl)-ethanol

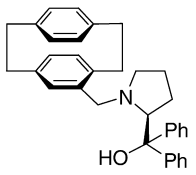
Absolute configuration: (R_p,*S*)

$C_{24}H_{31}NO$

(*S*)-1-Methyl-1-[1-{(R_p)-[2.2]paracyclophan-4-yl}methyl-2-pyrrolidin-2-yl]ethanol

Shigeo Sugiyama,* Yoshinori Aoki and Keitaro Ishii*

Tetrahedron: Asymmetry *17 (2006) 2847*



Ee >98%

$[\alpha]_D^{25} = -17.9$ (c 0.8, $CHCl_3$)

Source of chirality: (*S*)-α,α-diphenyl-2-pyrolidine-methanol

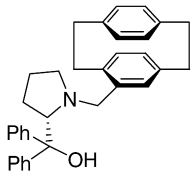
Absolute configuration: (S_p,*S*)

$C_{34}H_{35}NO_2$

(*S*)-1-{(S_p)-[2.2]Paracyclophan-4-yl}methyl-2-pyrrolidine-α,α-diphenylmethanol

Shigeo Sugiyama,* Yoshinori Aoki and Keitaro Ishii*

Tetrahedron: Asymmetry *17 (2006) 2847*



Ee >98%

$[\alpha]_D^{25} = -59.8$ (c 0.4, $CHCl_3$)

Source of chirality: (*S*)-α,α-diphenyl-2-pyrolidine-methanol

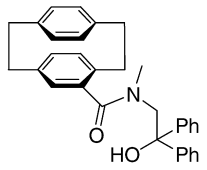
Absolute configuration: (R_p,*S*)

$C_{34}H_{35}NO_2$

(*S*)-1-{(R_p)-[2.2]Paracyclophan-4-yl}methyl-2-pyrrolidine-α,α-diphenylmethanol

Shigeo Sugiyama,* Yoshinori Aoki and Keitaro Ishii*

Tetrahedron: Asymmetry *17 (2006) 2847*



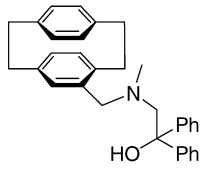
Ee >98%
$[\alpha]_D^{23} = +28.8$ (*c* 0.5, $CHCl_3$)
Source of chirality: (*S*)-prolinol
Absolute configuration: (S_p)

$C_{32}H_{31}NO_2$

N-(2-Hydroxymethyl-2,2-diphenyl)ethyl-*N*-methyl-(S_p)-[2.2]paracyclophane-4-carboxamide

Shigeo Sugiyama,* Yoshinori Aoki and Keitaro Ishii*

Tetrahedron: Asymmetry *17 (2006) 2847*



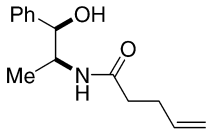
Ee >98%
$[\alpha]_D^{26} = +24.9$ (*c* 0.5, $CHCl_3$)
Source of chirality: (*S*)-prolinol
Absolute configuration: (S_p)

$C_{32}H_{33}NO$

2-{*N*-Methyl-*N*-(S_p)-[2.2]paracyclophanylmethyl}amino-1,1-diphenylethanol

Iván Kanizsai, Zsolt Szakonyi, Reijo Sillanpää, Matthias D'hooghe, Norbert De Kimpe* and Ferenc Fülöp*

Tetrahedron: Asymmetry *17 (2006) 2857*



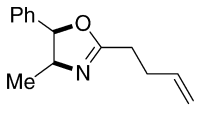
$[\alpha]_D^{20} = -110.7$ (*c* 1.5, CH_2Cl_2)
Source of chirality: (1*R*,2*S*)-(−)-norephedrine
Absolute configuration: (1*S*,2*R*)

$C_{14}H_{19}NO_2$

N-[(1*S*,2*R*)-2-Hydroxy-1-methyl-2-phenylethyl]-4-pentenamide

Iván Kanizsai, Zsolt Szakonyi, Reijo Sillanpää, Matthias D'hooghe, Norbert De Kimpe* and Ferenc Fülöp*

Tetrahedron: Asymmetry *17 (2006) 2857*



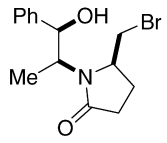
$[\alpha]_D^{20} = -170$ (*c* 0.1, MeOH)
Source of chirality: (1*R*,2*S*)-(−)-norephedrine
Absolute configuration: (4*S*,5*R*)

$C_{14}H_{17}NO$

(4*S*,5*R*)-2-(3-Butenyl)-4-methyl-5-phenyl-4,5-dihydro-1,3-oxazole

Iván Kanizsai, Zsolt Szakonyi, Reijo Sillanpää, Matthias D'hooghe, Norbert De Kimpe* and Ferenc Fülöp*

Tetrahedron: Asymmetry *17 (2006) 2857*

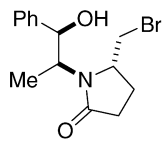


$[\alpha]_D^{20} = -42.3$ (*c* 1.0, CH_2Cl_2)
Source of chirality: (1*R*,2*S*)-(−)-norephedrine
Absolute configuration: (1*S*,2*R*,5*R*)

$C_{14}H_{18}BrNO_2$
(1*S*,2*R*,5*R*)-5-Bromomethyl-1-(2-hydroxy-1-methyl-2-phenylethyl)-2-pyrrolidinone

Iván Kanizsai, Zsolt Szakonyi, Reijo Sillanpää, Matthias D'hooghe, Norbert De Kimpe* and Ferenc Fülöp*

Tetrahedron: Asymmetry *17 (2006) 2857*

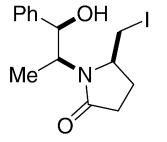


$[\alpha]_D^{20} = -37.6$ (*c* 1.05, CH_2Cl_2)
Source of chirality: (1*R*,2*S*)-(−)-norephedrine
Absolute configuration: (1*S*,2*R*,5*S*)

$C_{14}H_{18}BrNO_2$
(1*S*,2*R*,5*S*)-5-Bromomethyl-1-(2-hydroxy-1-methyl-2-phenylethyl)-2-pyrrolidinone

Iván Kanizsai, Zsolt Szakonyi, Reijo Sillanpää, Matthias D'hooghe, Norbert De Kimpe* and Ferenc Fülöp*

Tetrahedron: Asymmetry *17 (2006) 2857*

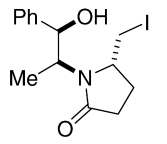


$[\alpha]_D^{20} = -74$ (*c* 1.0, CH_2Cl_2)
Source of chirality: (1*R*,2*S*)-(−)-norephedrine
Absolute configuration: (1*S*,2*R*,5*R*)

$C_{14}H_{18}INO_2$
(1*S*,2*R*,5*R*)-5-Iodomethyl-1-(2-hydroxy-1-methyl-2-phenylethyl)-2-pyrrolidinone

Iván Kanizsai, Zsolt Szakonyi, Reijo Sillanpää, Matthias D'hooghe, Norbert De Kimpe* and Ferenc Fülöp*

Tetrahedron: Asymmetry *17 (2006) 2857*

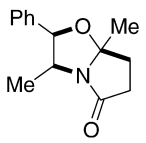


$[\alpha]_D^{20} = -49.1$ (*c* 1.1, CH_2Cl_2)
Source of chirality: (1*R*,2*S*)-(−)-norephedrine
Absolute configuration: (1*S*,2*R*,5*S*)

$C_{14}H_{18}INO_2$
(1*S*,2*R*,5*S*)-5-Iodomethyl-1-(2-hydroxy-1-methyl-2-phenylethyl)-2-pyrrolidinone

Iván Kanizsai, Zsolt Szakonyi, Reijo Sillanpää, Matthias D'hooghe, Norbert De Kimpe* and Ferenc Fülöp*

Tetrahedron: Asymmetry *17 (2006) 2857*

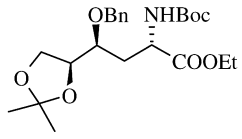


$[\alpha]_D^{20} = -25$ (*c* 0.25, MeOH)
Source of chirality: (1*R*,2*S*)-(−)-norephedrine
Absolute configuration: (2*R*,3*S*,7a*S*)

$C_{14}H_{17}NO_2$
(2*R*,3*S*,7a*S*)-3,7a-Dimethyl-2-phenyl-pyrrolo[2,1-*b*]oxazol-5(6*H*)-one

Srivari Chandrasekhar,* Gudise Chandrashekar, Kandi Vijeender and Ganti Dattatreya Sarma

Tetrahedron: Asymmetry *17 (2006) 2864*

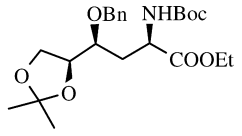


$[\alpha]_D^{25} = -27.4$ (*c* 1.5, $CHCl_3$)
Source of chirality: L-ascorbic acid
Absolute configuration: (1*S*,3*S*,3a*S*)

$C_{23}H_{35}NO_7$
tert-Butyl-(1*S*,3*S*)-1-(ethoxycarbonyl)-3-(benzyloxy)-3-[(*S*)-2,2-dimethyl-1,3-dioxolan-4-yl]propyl carbamate

Srivari Chandrasekhar,* Gudise Chandrashekar, Kandi Vijeender and Ganti Dattatreya Sarma

Tetrahedron: Asymmetry *17 (2006) 2864*

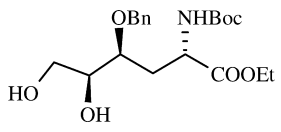


$[\alpha]_D^{25} = -39.1$ (*c* 1.1, $CHCl_3$)
Source of chirality: L-ascorbic acid
Absolute configuration: (1*R*,3*S*,3a*S*)

$C_{23}H_{35}NO_7$
tert-Butyl-(1*R*,3*S*)-1-(ethoxycarbonyl)-3-(benzyloxy)-3-[(*S*)-2,2-dimethyl-1,3-dioxolam-4-yl]propyl carbamate

Srivari Chandrasekhar,* Gudise Chandrashekar, Kandi Vijeender and Ganti Dattatreya Sarma

Tetrahedron: Asymmetry *17 (2006) 2864*

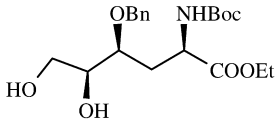


$[\alpha]_D^{25} = -14.6$ (*c* 0.7, $CHCl_3$)
Source of chirality: L-ascorbic acid
Absolute configuration: (1*S*,3*S*,4*S*)

$C_{20}H_{31}NO_7$
tert-Butyl-(1*S*,3*S*,4*S*)-1-(ethoxycarbonyl)-3-(benzyloxy)-4,5-dihydroxy pentyl carbamate

Srivari Chandrasekhar,* Gudise Chandrashekar, Kandi Vijeender and Ganti Dattatreya Sarma

Tetrahedron: Asymmetry *17 (2006) 2864*



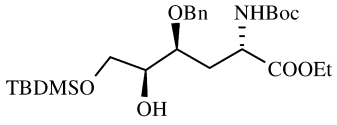
$[\alpha]_D^{25} = -8.8$ (*c* 1.9, $CHCl_3$)
Source of chirality: L-ascorbic acid
Absolute configuration: (1*R*,3*S*,4*S*)

$C_{20}H_{31}NO_7$

tert-Butyl-(1*R*,3*S*,4*S*)-1-(ethoxycarbonyl)-3-(benzyloxy)-4,5-dihydroxy pentyl carbamate

Srivari Chandrasekhar,* Gudise Chandrashekar, Kandi Vijeender and Ganti Dattatreya Sarma

Tetrahedron: Asymmetry *17 (2006) 2864*



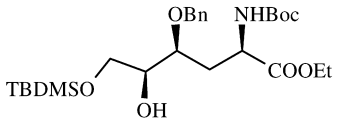
$[\alpha]_D^{25} = -17.6$ (*c* 1.25, $CHCl_3$)
Source of chirality: L-ascorbic acid
Absolute configuration: (1*S*,3*S*,4*S*)

$C_{26}H_{45}NO_7Si$

tert-Butyl-(1*S*,3*S*,4*S*)-1-(ethoxycarbonyl)-3-(benzyloxy)-4-hydroxy-5-(*tert*-butyl dimethyl silyloxy)-pentyl carbamate

Srivari Chandrasekhar,* Gudise Chandrashekar, Kandi Vijeender and Ganti Dattatreya Sarma

Tetrahedron: Asymmetry *17 (2006) 2864*



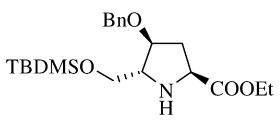
$[\alpha]_D^{25} = -18.2$ (*c* 1.25, $CHCl_3$)
Source of chirality: L-ascorbic acid
Absolute configuration: (1*R*,3*S*,4*S*)

$C_{26}H_{45}NO_7Si$

tert-Butyl-(1*R*,3*S*,4*S*)-1-(ethoxycarbonyl)-3-(benzyloxy)-4-hydroxy-5-(*tert*-butyl dimethyl silyloxy)-pentyl carbamate

Srivari Chandrasekhar,* Gudise Chandrashekar, Kandi Vijeender and Ganti Dattatreya Sarma

Tetrahedron: Asymmetry *17 (2006) 2864*



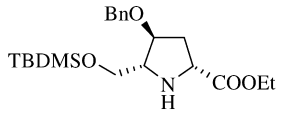
$[\alpha]_D^{25} = +5.4$ (*c* 1.3, $CHCl_3$)
Source of chirality: L-ascorbic acid
Absolute configuration: (2*S*,4*S*,5*R*)

$C_{21}H_{36}NO_4Si$

(2*S*,4*S*,5*R*)-Ethyl-4-(benzyloxy)-5-(*tert*-butyl dimethyl silyloxy methyl)pyrrolidine-2-carboxylate

Srivari Chandrasekhar,* Gudise Chandrashekar, Kandi Vijeender and Ganti Dattatreya Sarma

Tetrahedron: Asymmetry *17 (2006) 2864*

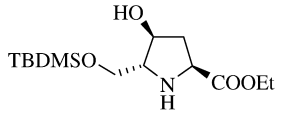


$[\alpha]_D^{25} = +21.6$ (*c* 1.8 $CHCl_3$)
Source of chirality: L-ascorbic acid
Absolute configuration: (2*R*,4*S*,5*R*)

$C_{21}H_{36}NO_4Si$
(2*R*,4*S*,5*R*)-Ethyl-4-(benzyloxy)-5-(*tert*-butyl dimethyl silyloxy methyl)pyrrolidine-2-carboxylate

Srivari Chandrasekhar,* Gudise Chandrashekar, Kandi Vijeender and Ganti Dattatreya Sarma

Tetrahedron: Asymmetry *17 (2006) 2864*

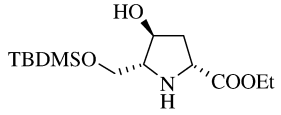


$[\alpha]_D^{25} = -8.1$ (*c* 0.9, $CHCl_3$)
Source of chirality: L-ascorbic acid
Absolute configuration: (2*S*,4*S*,5*R*)

$C_{14}H_{29}NO_4Si$
(2*S*,4*S*,5*R*)-Ethyl-4-hydroxy-5-(*tert*-butyl dimethyl silyloxy methyl)pyrrolidine-2-carboxylate

Srivari Chandrasekhar,* Gudise Chandrashekar, Kandi Vijeender and Ganti Dattatreya Sarma

Tetrahedron: Asymmetry *17 (2006) 2864*

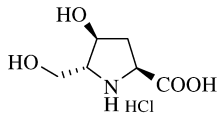


$[\alpha]_D^{25} = +11.7$ (*c* 0.9, $CHCl_3$)
Source of chirality: L-ascorbic acid
Absolute configuration: (2*R*,4*S*,5*R*)

$C_{14}H_{29}NO_4Si$
(2*R*,4*S*,5*R*)-Ethyl-4-hydroxy-5-(*tert*-butyl dimethyl silyloxy methyl)pyrrolidine-2-carboxylate

Srivari Chandrasekhar,* Gudise Chandrashekar, Kandi Vijeender and Ganti Dattatreya Sarma

Tetrahedron: Asymmetry *17 (2006) 2864*

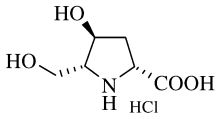


$[\alpha]_D^{25} = +11.6$ (*c* 0.75, 1 M HCl)
Source of chirality: L-ascorbic acid
Absolute configuration: (2*S*,4*S*,5*R*)

$C_6H_{12}NO_4Cl$
(2*S*,4*S*,5*R*)-Bulgecinine hydrochloride

Srivari Chandrasekhar,* Gudise Chandrashekar, Kandi Vijeender and Ganti Dattatreya Sarma

Tetrahedron: Asymmetry *17 (2006) 2864*



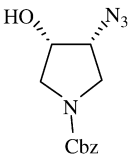
$C_6H_{12}NO_4Cl$

(2*R*,4*S*,5*R*)-Bulgecinine hydrochloride

$[\alpha]_D^{25} = +29.8$ (*c* 0.60, 1 M HCl)
Source of chirality: L-ascorbic acid
Absolute configuration: (2*R*,4*S*,5*R*)

Ahmed Kamal,* Ahmad Ali Shaik, Mahendra Sandbhor, M. Shaheer Malik and Shaik Azeeza

Tetrahedron: Asymmetry *17 (2006) 2876*



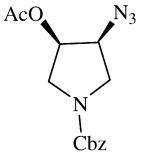
$C_{12}H_{14}N_4O_3$

(3*S*,4*R*)-1-Cbz-3-Azido-4-hydroxypyrrolidine

Ee = 92% [by chiral HPLC]
$[\alpha]_D^{25} = -9.5$ (*c* 1.01, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (3*S*,4*R*)

Ahmed Kamal,* Ahmad Ali Shaik, Mahendra Sandbhor, M. Shaheer Malik and Shaik Azeeza

Tetrahedron: Asymmetry *17 (2006) 2876*



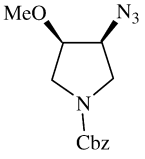
$C_{14}H_{16}N_4O_4$

(3*R*,4*S*)-1-Cbz-3-Acetyloxy-4-azidopyrrolidine

Ee = 97% [by chiral HPLC]
$[\alpha]_D^{25} = -29.3$ (*c* 1.04, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (3*R*,4*S*)

Ahmed Kamal,* Ahmad Ali Shaik, Mahendra Sandbhor, M. Shaheer Malik and Shaik Azeeza

Tetrahedron: Asymmetry *17 (2006) 2876*



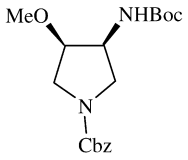
$C_{13}H_{16}N_4O_3$

(3*R*,4*S*)-1-Cbz-3-Azido-4-methoxypyrrolidine

Ee = 97% [by chiral HPLC]
$[\alpha]_D^{25} = -48.4$ (*c* 1, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (3*R*,4*S*)

Ahmed Kamal,* Ahmad Ali Shaik, Mahendra Sandbhor, M. Shaheer Malik and Shaik Azeeza

Tetrahedron: Asymmetry *17 (2006) 2876*



Ee = 97% [by chiral HPLC]
$[\alpha]_D^{25} = -7.3$ (*c* 1.07, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (3*R*,4*S*)

$C_{18}H_{26}N_2O_5$

(3*R*,4*S*)-1-Cbz-3-[(*tert*-Butoxycarbonyl)amino]-4-methoxypyrrolidine

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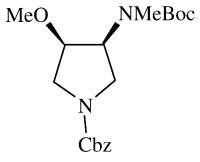
Ahmed Kamal,* Ahmad Ali Shaik, Mahendra Sandbhor, M. Shaheer Malik and Shaik Azeeza

Tetrahedron: Asymmetry *17 (2006) 2876*



Ee = 97% [by chiral HPLC]
$[\alpha]_D^{25} = -42.6$ (*c* 1.05, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (3*R*,4*S*)

$C_{19}H_{28}N_2O_5$

(3*R*,4*S*)-1-Cbz-3-[(*tert*-Butoxycarbonyl)methylamino]-4-methoxypyrrolidine

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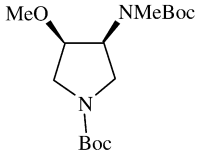
Ahmed Kamal,* Ahmad Ali Shaik, Mahendra Sandbhor, M. Shaheer Malik and Shaik Azeeza

Tetrahedron: Asymmetry *17 (2006) 2876*



Ee = 97% [by chiral HPLC]
$[\alpha]_D^{25} = -53.2$ (*c* 1.05, MeOH)
Source of chirality: enzymatic resolution
Absolute configuration: (3*R*,4*S*)

$C_{16}H_{30}N_2O_5$

(3*R*,4*S*)-1-*tert*-Butoxycarbonyl-3-methoxy-4{[*tert*-butoxycarbonyl]methylamino}pyrrolidine

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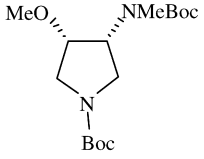
Ahmed Kamal,* Ahmad Ali Shaik, Mahendra Sandbhor, M. Shaheer Malik and Shaik Azeeza

Tetrahedron: Asymmetry *17 (2006) 2876*



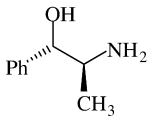
Ee = 92% [by chiral HPLC]
$[\alpha]_D^{25} = +50.9$ (*c* 1.01, MeOH)
Source of chirality: enzymatic resolution
Absolute configuration: (3*S*,4*R*)

$C_{16}H_{30}N_2O_5$

(3*S*,4*R*)-1-*tert*-Butoxycarbonyl-3-methoxy-4{[*tert*-butoxycarbonyl]methylamino}pyrrolidine

Jonathan A. Groeper, Shawn R. Hitchcock* and Gregory M. Ferrence

Tetrahedron: Asymmetry *17 (2006) 2884*

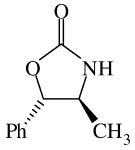


$C_9H_{13}NO$
(1*S*,2*S*)-2-Amino-1-phenyl-1-propanol

$[\alpha]_D^{28} = +31.8$ (*c* 3.49, EtOH)
Source of chirality: (1*R*,2*S*)-norephedrine
Absolute configuration: (1*S*,2*S*)

Jonathan A. Groeper, Shawn R. Hitchcock* and Gregory M. Ferrence

Tetrahedron: Asymmetry *17 (2006) 2884*

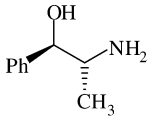


$C_{10}H_{11}NO_2$
(4*S*,5*S*)-4-Methyl-5-phenyl-2-oxazolidinone

$[\alpha]_D^{29} = +21.6$ (*c* 2.3, $CHCl_3$)
Source of chirality: (1*R*,2*S*)-norephedrine
Absolute configuration: (1*S*,2*S*)

Jonathan A. Groeper, Shawn R. Hitchcock* and Gregory M. Ferrence

Tetrahedron: Asymmetry *17 (2006) 2884*

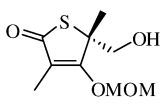


$C_9H_{13}NO$
(1*R*,2*R*)-2-Amino-1-phenyl-1-propanol

$[\alpha]_D^{28} = -31.4$ (*c* 3.49, EtOH)
Source of chirality: (1*S*,2*R*)-norephedrine
Absolute configuration: (1*R*,2*R*)

Ahmed Kamal,* Ahmad Ali Shaik, Shaik Azeeza, M. Shaheer Malik and Mahendra Sandbhor

Tetrahedron: Asymmetry *17 (2006) 2890*

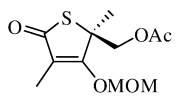


$C_9H_{14}O_4S$
(5*R*)-Hydroxymethyl-3,5-dimethyl-4-(methoxymethoxy)-(5*H*)-thiophen-2-one

Ee = 94% [by chiral HPLC]
$[\alpha]_D^{25} = -17.7$ (*c* 1.02, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (5*R*)

Ahmed Kamal,* Ahmad Ali Shaik, Shaik Azeeza, M. Shaheer Malik and Mahendra Sandbhor

Tetrahedron: Asymmetry *17 (2006) 2890*



Ee = 98% [by chiral HPLC]
$[\alpha]_D^{25} = -27.9$ (*c* 1.03, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (5*S*)

$C_{11}H_{16}O_5S$
(5*S*)-Methylacetate-3,5-dimethyl-4-(methoxymethoxy)-(5*H*)-thiophen-2-one

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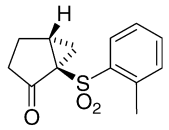
Hiroyuki Takeda and Masahisa Nakada*

Tetrahedron: Asymmetry *17 (2006) 2896*



Ee = 86%
$[\alpha]_D^{25} = -35.4$ (*c* 1.00, $CHCl_3$)
Source of chirality: catalytic asymmetric intramolecular cyclopropanation
Absolute configuration: (1*R*,5*R*)

$C_{13}H_{14}O_3S$
(1*R*,5*R*)-1-(2-Methylphenylsulfonyl)bicyclo[3.1.0]hexan-2-one

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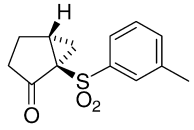
Hiroyuki Takeda and Masahisa Nakada*

Tetrahedron: Asymmetry *17 (2006) 2896*



Ee = 77%
$[\alpha]_D^{26} = -35.8$ (*c* 1.50, $CHCl_3$)
Source of chirality: catalytic asymmetric intramolecular cyclopropanation
Absolute configuration: (1*R*,5*R*)

$C_{13}H_{14}O_3S$
(1*R*,5*R*)-1-(3-Methylphenylsulfonyl)bicyclo[3.1.0]hexan-2-one

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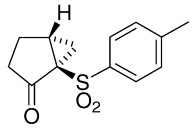
Hiroyuki Takeda and Masahisa Nakada*

Tetrahedron: Asymmetry *17 (2006) 2896*

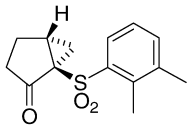


Ee = 69%
$[\alpha]_D^{28} = -25.2$ (*c* 0.75, $CHCl_3$)
Source of chirality: catalytic asymmetric intramolecular cyclopropanation
Absolute configuration: (1*R*,5*R*)

$C_{13}H_{14}O_3S$
(1*R*,5*R*)-1-(4-Methylphenylsulfonyl)bicyclo[3.1.0]hexan-2-one

Hiroyuki Takeda and Masahisa Nakada*

Tetrahedron: Asymmetry *17 (2006) 2896*



$C_{14}H_{16}O_3S$

(1*R*,5*R*)-1-(2,3-Dimethylphenylsulfonyl)bicyclo[3.1.0]hexan-2-one

Ee = > 99%

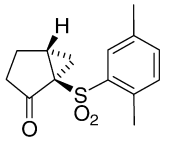
$[\alpha]_D^{26} = -37.2$ (*c* 1.02, $CHCl_3$)

Source of chirality: catalytic asymmetric intramolecular cyclopropanation

Absolute configuration: (1*R*,5*R*)

Hiroyuki Takeda and Masahisa Nakada*

Tetrahedron: Asymmetry *17 (2006) 2896*



$C_{14}H_{16}O_3S$

(1*R*,5*R*)-1-(2,5-Dimethylphenylsulfonyl)bicyclo[3.1.0]hexan-2-one

Ee = 82%

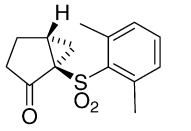
$[\alpha]_D^{28} = -43.0$ (*c* 1.05, $CHCl_3$)

Source of chirality: catalytic asymmetric intramolecular cyclopropanation

Absolute configuration: (1*R*,5*R*)

Hiroyuki Takeda and Masahisa Nakada*

Tetrahedron: Asymmetry *17 (2006) 2896*



$C_{14}H_{16}O_3S$

(1*R*,5*R*)-1-(2,6-Dimethylphenylsulfonyl)bicyclo[3.1.0]hexan-2-one

Ee = 91%

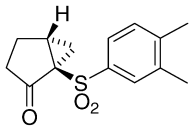
$[\alpha]_D^{28} = -50.0$ (*c* 1.25, $CHCl_3$)

Source of chirality: catalytic asymmetric intramolecular cyclopropanation

Absolute configuration: (1*R*,5*R*)

Hiroyuki Takeda and Masahisa Nakada*

Tetrahedron: Asymmetry *17 (2006) 2896*



$C_{14}H_{16}O_3S$

(1*R*,5*R*)-1-(3,4-Dimethylphenylsulfonyl)bicyclo[3.1.0]hexan-2-one

Ee = 72%

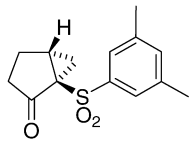
$[\alpha]_D^{28} = -42.3$ (*c* 1.09, $CHCl_3$)

Source of chirality: catalytic asymmetric intramolecular cyclopropanation

Absolute configuration: (1*R*,5*R*)

Hiroyuki Takeda and Masahisa Nakada*

Tetrahedron: Asymmetry *17 (2006) 2896*



$C_{14}H_{16}O_3S$

(1*R*,5*R*)-1-(3,5-Dimethylphenylsulfonyl)bicyclo[3.1.0]hexan-2-one

Ee = 62%

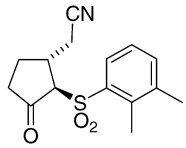
$[\alpha]_D^{28} = -41.0$ (*c* 1.37, $CHCl_3$)

Source of chirality: catalytic asymmetric intramolecular cyclopropanation

Absolute configuration: (1*R*,5*R*)

Hiroyuki Takeda and Masahisa Nakada*

Tetrahedron: Asymmetry *17 (2006) 2896*



$C_{15}H_{17}NO_3S$

(1*R*,2*R*)-[2-(2,3-Dimethylbenzenesulfonyl)-3-oxocyclopentyl]acetonitrile

Ee = 93%

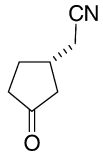
$[\alpha]_D^{25} = -33.0$ (*c* 1.15, $CHCl_3$)

Source of chirality: catalytic asymmetric intramolecular cyclopropanation

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

Hiroyuki Takeda and Masahisa Nakada*

Tetrahedron: Asymmetry *17 (2006) 2896*



C_7H_9NO

(*R*)-(3-Oxocyclopentyl)acetonitrile

Ee = > 99%

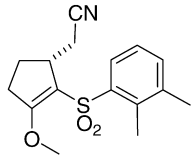
$[\alpha]_D^{24} = -70.1$ (*c* 1.20, $CHCl_3$)

Source of chirality: catalytic asymmetric intramolecular cyclopropanation

Absolute configuration: (*R*)

Hiroyuki Takeda and Masahisa Nakada*

Tetrahedron: Asymmetry *17 (2006) 2896*



$C_{16}H_{19}NO_3S$

(*R*)-[2-(2,3-Dimethylbenzenesulfonyl)-3-methoxy-2-cyclopentenyl]acetonitrile

Ee = 93%

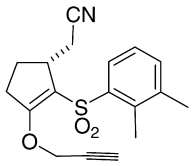
$[\alpha]_D^{25} = -17.9$ (*c* 0.72, $CHCl_3$)

Source of chirality: catalytic asymmetric intramolecular cyclopropanation

Absolute configuration: (*R*)

Hiroyuki Takeda and Masahisa Nakada*

Tetrahedron: Asymmetry *17 (2006) 2896*

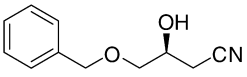


Ee = 93%
$[\alpha]_D^{25} = -11.2$ (*c* 0.94, $CHCl_3$)
Source of chirality: catalytic asymmetric intramolecular cyclopropanation
Absolute configuration: (*R*)

$C_{18}H_{19}NO_3S$
(*R*)-[2-(2,3-Dimethylbenzenesulfonyl)-3-(2-propynyloxy)-2-cyclopentenyl]acetonitrile

Fenglai Sun, Gang Xu, Jianping Wu and Lirong Yang*

Tetrahedron: Asymmetry *17 (2006) 2907*

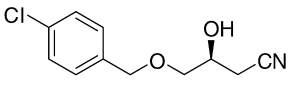


Ee = 98.0% [by chiral HPLC]
$[\alpha]_D^{20} = -3.3$ (*c* 3.3, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (3*S*)

$C_{11}H_{13}NO_2$
(*S*)-4-Benzyloxy-3-hydroxybutanenitrile

Fenglai Sun, Gang Xu, Jianping Wu and Lirong Yang*

Tetrahedron: Asymmetry *17 (2006) 2907*

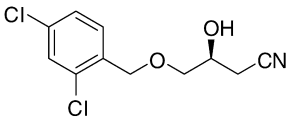


Ee = 96.2% [by chiral HPLC]
$[\alpha]_D^{20} = -2.6$ (*c* 3.2, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (3*S*)

$C_{11}H_{12}ClNO_2$
(*S*)-4-(4-Chlorobenzyloxy)-3-hydroxybutanenitrile

Fenglai Sun, Gang Xu, Jianping Wu and Lirong Yang*

Tetrahedron: Asymmetry *17 (2006) 2907*

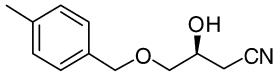


Ee = 96.1% [by chiral HPLC]
$[\alpha]_D^{20} = -0.6$ (*c* 3.7, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (3*S*)

$C_{11}H_{11}Cl_2NO_2$
(*S*)-4-(2,4-Dichlorobenzyloxy)-3-hydroxybutanenitrile

Fenglai Sun, Gang Xu, Jianping Wu and Lirong Yang*

Tetrahedron: Asymmetry *17 (2006) 2907*



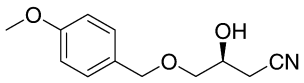
$C_{12}H_{15}NO_2$

(*S*)-4-(4-Methlybenzyloxy)-3-hydroxybutanenitrile

Ee = 97.0% [by chiral HPLC]
$[\alpha]_D^{20} = -2.6$ (*c* 3.0, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: (3*S*)

Fenglai Sun, Gang Xu, Jianping Wu and Lirong Yang*

Tetrahedron: Asymmetry *17 (2006) 2907*

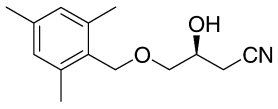


(*S*)-4-(4-Methoxybenzyloxy)-3-hydroxybutanenitrile

Ee = 96.3% [by chiral HPLC]
$[\alpha]_D^{20} = -1.8$ (*c* 3.0, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: 3*S*

Fenglai Sun, Gang Xu, Jianping Wu and Lirong Yang*

Tetrahedron: Asymmetry *17 (2006) 2907*

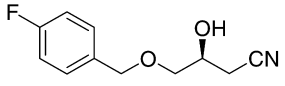


(*S*)-4-(2,4,6-Trimethylbenzyloxy)-3-hydroxybutanenitrile

Ee = 92.7% [by chiral HPLC]
$[\alpha]_D^{20} = +3.0$ (*c* 3.0, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: 3*S*

Fenglai Sun, Gang Xu, Jianping Wu and Lirong Yang*

Tetrahedron: Asymmetry *17 (2006) 2907*

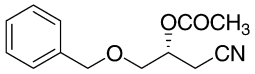


(*S*)-4-(4-Fluorobenzyloxy)-3-hydroxybutanenitrile

Ee = 99.0% [by chiral HPLC]
$[\alpha]_D^{20} = -1.4$ (*c* 3.0, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: 3*S*

Fenglai Sun, Gang Xu, Jianping Wu and Lirong Yang*

Tetrahedron: Asymmetry *17 (2006) 2907*

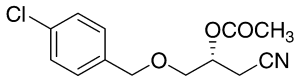


(*R*)-3-Acetyloxy-4-benzyloxy-3-hydroxybutanenitrile

Ee = 70.0% [by chiral HPLC]
$[\alpha]_D^{20} = +3.4$ (*c* 3.0, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: 3*R*

Fenglai Sun, Gang Xu, Jianping Wu and Lirong Yang*

Tetrahedron: Asymmetry *17 (2006) 2907*



(*R*)-3-Acetyloxy-4-(4-chlorobenzyloxy)-3-hydroxybutanenitrile

Ee = 85.0% [by chiral HPLC]
$[\alpha]_D^{20} = +4.0$ (*c* 5.0, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: 3*R*

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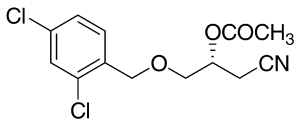
Tetrahedron: Asymmetry *17 (2006) 2907*



(*R*)-3-Acetyloxy-4-(2,4-dichlorobenzyloxy)-3-hydroxybutanenitrile

Ee = 90.1% [by chiral HPLC]
$[\alpha]_D^{20} = +4.6$ (*c* 4.5, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: 3*R*

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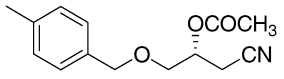
Tetrahedron: Asymmetry *17 (2006) 2907*

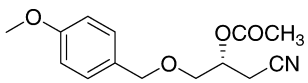


(*R*)-3-Acetyloxy-4-(4-methylbenzyloxy)-3-hydroxybutanenitrile

Ee = 81.3% [by chiral HPLC]
$[\alpha]_D^{20} = +4.0$ (*c* 3.0, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: 3*R*

Fenglai Sun, Gang Xu, Jianping Wu and Lirong Yang*

Tetrahedron: Asymmetry *17 (2006) 2907*



Ee = 82.3% [by chiral HPLC]
$[\alpha]_D^{20} = +4.2$ (*c* 5.0, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: 3*R*

(*R*)-3-Acetyloxy-4-(4-methoxybenzyloxy)-3-hydroxybutanenitrile

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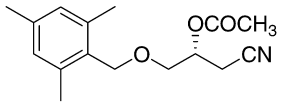
Fenglai Sun, Gang Xu, Jianping Wu and Lirong Yang*

Tetrahedron: Asymmetry *17 (2006) 2907*



Ee = 99.0% [by chiral HPLC]
$[\alpha]_D^{20} = +8.0$ (*c* 3.0, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: 3*R*

(*R*)-3-Acetyloxy-4-(2,4,6-trimethylbenzyloxy)-3-hydroxybutanenitrile

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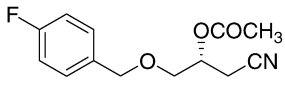
Fenglai Sun, Gang Xu, Jianping Wu and Lirong Yang*

Tetrahedron: Asymmetry *17 (2006) 2907*

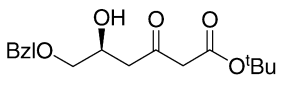


Ee = 85.0% [by chiral HPLC]
$[\alpha]_D^{20} = +3.0$ (*c* 3.0, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: 3*R*

(*R*)-4-Acetyloxy-(4-fluorobenzyloxy)-3-hydroxybutanenitrile

Fenglai Sun, Gang Xu, Jianping Wu and Lirong Yang*

Tetrahedron: Asymmetry *17 (2006) 2907*

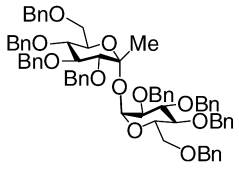


Ee = 98.0% [by chiral HPLC]
$[\alpha]_D^{20} = -13.6$ (*c* 2.0, $CHCl_3$)
Source of chirality: enzymatic resolution
Absolute configuration: 5*S*

tert-Butyl (*S*)-6-(benzyloxy)-5-hydroxy-3-oxohexanoate

Takashi Yamanoi,* Ryo Inoue, Sho Matsuda, Kaname Katsuraya and Keita Hamasaki

Tetrahedron: Asymmetry *17 (2006) 2914*

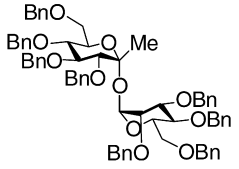


$[\alpha]_D^{23} = +70$ (*c* 2.0, $CHCl_3$)
Source of chirality: D-glucopyranose

$C_{69}H_{72}O_{11}$
2,3,4,6-Tetra-*O*-benzyl-α-D-glucopyranosyl 2,3,4,6-tetra-*O*-benzyl-1-*C*-methyl-α-D-glucopyranoside

Takashi Yamanoi,* Ryo Inoue, Sho Matsuda, Kaname Katsuraya and Keita Hamasaki

Tetrahedron: Asymmetry *17 (2006) 2914*

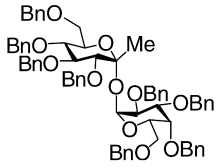


$[\alpha]_D^{23} = +59$ (*c* 0.83, $CHCl_3$)
Source of chirality: D-glucopyranose and D-mannopyranose

$C_{69}H_{72}O_{11}$
2,3,4,6-Tetra-*O*-benzyl-α-D-mannopyranosyl 2,3,4,6-tetra-*O*-benzyl-1-*C*-methyl-α-D-glucopyranoside

Takashi Yamanoi,* Ryo Inoue, Sho Matsuda, Kaname Katsuraya and Keita Hamasaki

Tetrahedron: Asymmetry *17 (2006) 2914*

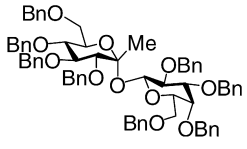


$[\alpha]_D^{23} = +74$ (*c* 0.95, $CHCl_3$)
Source of chirality: D-glucopyranose and D-galactopyranose

$C_{69}H_{72}O_{11}$
2,3,4,6-Tetra-*O*-benzyl-α-D-galactopyranosyl 2,3,4,6-tetra-*O*-benzyl-1-*C*-methyl-α-D-glucopyranoside

Takashi Yamanoi,* Ryo Inoue, Sho Matsuda, Kaname Katsuraya and Keita Hamasaki

Tetrahedron: Asymmetry *17 (2006) 2914*

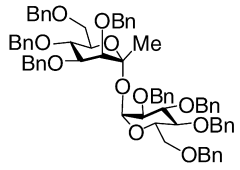


$[\alpha]_D^{23} = +48$ (*c* 0.70, $CHCl_3$)
Source of chirality: D-glucopyranose and D-galactopyranose

$C_{69}H_{72}O_{11}$
2,3,4,6-Tetra-*O*-benzyl-β-D-galactopyranosyl 2,3,4,6-tetra-*O*-benzyl-1-*C*-methyl-α-D-glucopyranoside

Takashi Yamanoi,* Ryo Inoue, Sho Matsuda, Kaname Katsuraya and Keita Hamasaki

Tetrahedron: Asymmetry *17 (2006) 2914*

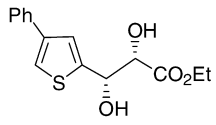


$[\alpha]_D^{23} = +57$ (*c* 0.81, $CHCl_3$)
Source of chirality: D-glucopyranose and D-mannopyranose

$C_{69}H_{72}O_{11}$
2,3,4,6-Tetra-*O*-benzyl-α-D-glucopyranosyl 2,3,4,6-tetra-*O*-benzyl-1-*C*-methyl-α-D-mannopyranoside

Carlo Bonini,* Lucia Chiummiento, Margherita De Bonis, Maria Funicello, Paolo Lupattelli and Rocco Pandolfo

Tetrahedron: Asymmetry *17 (2006) 2919*

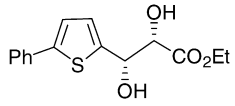


Ee = 98%
$[\alpha]_D^{20} = -8.7$ (*c* 0.91, EtOAc)
Source of chirality: AD-mix β

$C_{15}H_{16}O_4S$
(2*S*,3*S*)-2,3-Dihydroxy-3-(4-phenyl-thiophen-2-yl)-propionic acid ethyl ester

Carlo Bonini,* Lucia Chiummiento, Margherita De Bonis, Maria Funicello, Paolo Lupattelli and Rocco Pandolfo

Tetrahedron: Asymmetry *17 (2006) 2919*

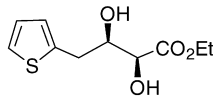


Ee = 98%
$[\alpha]_D^{20} = +6.6$ (*c* 0.5, $CHCl_3$)
Source of chirality: AD-mix β

$C_{15}H_{16}O_4S$
(2*S*,3*S*)-2,3-Dihydroxy-3-(5-phenyl-thiophen-2-yl)-propionic acid ethyl ester

Carlo Bonini,* Lucia Chiummiento, Margherita De Bonis, Maria Funicello, Paolo Lupattelli and Rocco Pandolfo

Tetrahedron: Asymmetry *17 (2006) 2919*

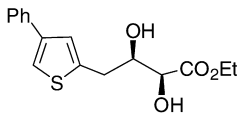


Ee = 94%
$[\alpha]_D^{20} = +24.4$ (*c* 1.5, $CHCl_3$)
Source of chirality: AD-mix β

$C_{10}H_{14}O_4S$
(2*S*,3*R*)-2,3-Dihydroxy-4-thiophen-2-yl-butyric acid ethyl ester

Carlo Bonini,* Lucia Chiummiento, Margherita De Bonis, Maria Funicello, Paolo Lupattelli and Rocco Pandolfo

Tetrahedron: Asymmetry *17 (2006) 2919*

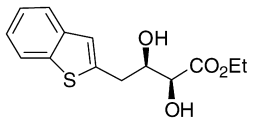


Ee = 88%
$[\alpha]_D^{20} = +26.6$ (*c* 0.5, $CHCl_3$)
Source of chirality: AD-mix β

$C_{16}H_{18}O_4S$
(2*S*,3*R*)-2,3-Dihydroxy-4-(4-phenyl-thiophen-2-yl)-butyric acid ethyl ester

Carlo Bonini,* Lucia Chiummiento, Margherita De Bonis, Maria Funicello, Paolo Lupattelli and Rocco Pandolfo

Tetrahedron: Asymmetry *17 (2006) 2919*

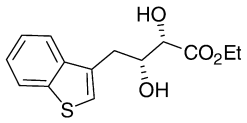


Ee = 88%
$[\alpha]_D^{20} = +36.7$ (*c* 1.8, $CHCl_3$)
Source of chirality: AD-mix β

$C_{14}H_{16}O_4S$
(2*S*,3*R*)-4-Benzo[*b*]thiophen-2-yl-2,3-dihydroxy-butyric acid ethyl ester

Carlo Bonini,* Lucia Chiummiento, Margherita De Bonis, Maria Funicello, Paolo Lupattelli and Rocco Pandolfo

Tetrahedron: Asymmetry *17 (2006) 2919*

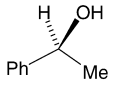


Ee = 82%
$[\alpha]_D^{20} = +18.8$ (*c* 1.05, $CHCl_3$)
Source of chirality: AD-mix β

$C_{14}H_{16}O_4S$
(2*S*,3*R*)-4-Benzo[*b*]thiophen-3-yl-2,3-dihydroxy-butyric acid ethyl ester

Yingjian (Andy) Xu, Gordon F. Docherty, Gary Woodward and Martin Wills*

Tetrahedron: Asymmetry *17 (2006) 2925*

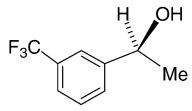


Ee 90%
$[\alpha]_D^{23} = +48.6$ (*c* 0.10 CH_2Cl_2)
Determined by chiral GC analysis

$C_8H_{10}O$
(*S*)-(−)-1-Phenylethanol

Yingjian (Andy) Xu, Gordon F. Docherty, Gary Woodward and Martin Wills*

Tetrahedron: Asymmetry *17 (2006) 2925*



$C_9H_9F_3O$

(*S*)-(−)-1-(3′-Trifluoromethylphenyl)ethanol

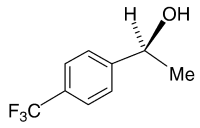
Ee 93%

$[\alpha]_D^{20} = -24.0$ (*c* 0.24, MeOH)

Determined by chiral GC analysis

Yingjian (Andy) Xu, Gordon F. Docherty, Gary Woodward and Martin Wills*

Tetrahedron: Asymmetry *17 (2006) 2925*



$C_9H_9F_3O$

(*S*)-(−)-1-(4′-Trifluoromethylphenyl)ethanol

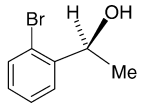
Ee 90%

$[\alpha]_D^{22} = -22.3$ (*c* 0.62, MeOH)

Determined by chiral GC analysis

Yingjian (Andy) Xu, Gordon F. Docherty, Gary Woodward and Martin Wills*

Tetrahedron: Asymmetry *17 (2006) 2925*



C_9H_9BrO

(*S*)-(−)-1-(2′-Bromophenyl)ethanol

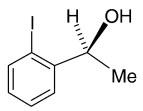
Ee 97%

$[\alpha]_D^{26} = -54.5$ (*c* 0.2, $CHCl_3$)

Determined by chiral GC analysis

Yingjian (Andy) Xu, Gordon F. Docherty, Gary Woodward and Martin Wills*

Tetrahedron: Asymmetry *17 (2006) 2925*



C_9H_9IO

(*S*)-(−)-1-(2′-Iodophenyl)ethanol

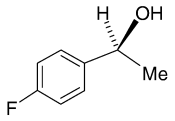
Ee 97%

$[\alpha]_D^{29} = -41.3$ (*c* 0.20, $CHCl_3$)

Determined by chiral GC analysis

Yingjian (Andy) Xu, Gordon F. Docherty, Gary Woodward and Martin Wills*

Tetrahedron: Asymmetry *17 (2006) 2925*



C_8H_9FO

(*S*)-(−)-1-(4′-Fluorophenyl)ethanol

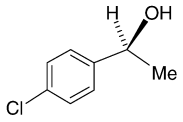
Ee 93%

$[\alpha]_D^{30} = -29.3$ (*c* 0.22, CH_3OH)

Determined by chiral GC analysis

Yingjian (Andy) Xu, Gordon F. Docherty, Gary Woodward and Martin Wills*

Tetrahedron: Asymmetry *17 (2006) 2925*



C_8H_9ClO

(*S*)-(−)-1-(4′-Chlorophenyl)ethanol

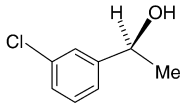
Ee 90%

$[\alpha]_D^{29} = -37.8$ (*c* 0.30, ether)

Determined by chiral GC analysis

Yingjian (Andy) Xu, Gordon F. Docherty, Gary Woodward and Martin Wills*

Tetrahedron: Asymmetry *17 (2006) 2925*



C_8H_9ClO

(*S*)-(−)-1-(3′-Chlorophenyl)ethanol

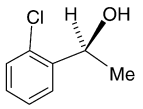
Ee 90%

$[\alpha]_D^{31} = -24.1$ (*c* 0.56, $CHCl_3$)

Determined by chiral GC analysis

Yingjian (Andy) Xu, Gordon F. Docherty, Gary Woodward and Martin Wills*

Tetrahedron: Asymmetry *17 (2006) 2925*



C_8H_9ClO

(*S*)-(−)-1-(2′-Chlorophenyl)ethanol

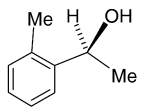
Ee 94%

$[\alpha]_D^{29} = -32.9$ (*c* 0.22, $CHCl_3$)

Determined by chiral GC analysis

Yingjian (Andy) Xu, Gordon F. Docherty, Gary Woodward and Martin Wills*

Tetrahedron: Asymmetry *17 (2006) 2925*



$C_9H_{12}O$

(*S*)-(−)-1-(2′-Methylphenyl)ethanol

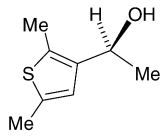
Ee 92%

$[\alpha]_D^{24} = -75.0$ (*c* 0.15, EtOH)

Determined by chiral GC analysis

Yingjian (Andy) Xu, Gordon F. Docherty, Gary Woodward and Martin Wills*

Tetrahedron: Asymmetry *17 (2006) 2925*



$C_8H_{12}SO$

(*S*)-(−)-1-(2,5-Dimethyl-3-thienyl)ethanol

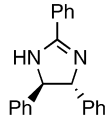
Ee 92%

$[\alpha]_D^{28} = -16.4$ (*c* 0.30, $CHCl_3$)

Determined by chiral GC analysis

D. Christopher Braddock,* Stephen A. Hermitage, Joanna M. Redmond and Andrew J. P. White

Tetrahedron: Asymmetry *17 (2006) 2935*



$C_{21}H_{18}N_2$

(+)-(4*R*,5*R*)-4,5-Dihydro-2,4,5-triphenyl-1*H*-imidazole (*iso*-amarine)

Ee = >98%

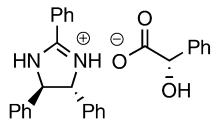
$[\alpha]_D = +46.0$ (*c* 2.0, EtOH)

Source of chirality: chiral pool

Absolute configuration: (*R*,*R*)

D. Christopher Braddock,* Stephen A. Hermitage, Joanna M. Redmond and Andrew J. P. White

Tetrahedron: Asymmetry *17 (2006) 2935*



$C_{29}H_{26}N_2O_3$

(+)-(4*R*,5*R*)-4,5-Dihydro-2,4,5-triphenyl-1*H*-imidazolium (*S*)-mandelate

Ee = >98%

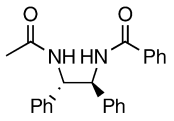
$[\alpha]_D = +128.0$ (*c* 2.3, EtOH)

Source of chirality: chiral pool

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

D. Christopher Braddock,* Stephen A. Hermitage, Joanna M. Redmond and Andrew J. P. White

Tetrahedron: Asymmetry *17 (2006) 2935*



Ee = >98%
$[\alpha]_D$ = +64.9 (*c* 1.0, 9:1 $CHCl_3$–MeOH)
Source of chirality: chiral pool
Absolute configuration: (*S*,*S*)

$C_{23}H_{22}N_2O_2$
(+)-(1*S*,2*S*)-*N*-Acetyl-*N*′-benzoyl-1,2-diamino-1,2-diphenylethane

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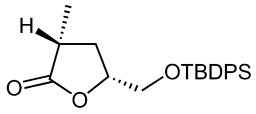
Pilar Formentín, Juan Murga,* Miguel Carda and J. Alberto Marco

Tetrahedron: Asymmetry *17 (2006) 2938*



Ee = 100%
$[\alpha]_D$ = −13.4 (*c* 1.1, $CHCl_3$)
Absolute configuration: (3*R*,5*R*)

$C_{22}H_{28}O_3Si$
(3*R*,5*R*)-5-(*tert*-Butyldiphenylsilyloxymethyl)-3-methyldihydrofuran-2(3*H*)-one

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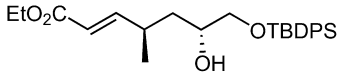
Pilar Formentín, Juan Murga,* Miguel Carda and J. Alberto Marco

Tetrahedron: Asymmetry *17 (2006) 2938*



Ee = 100%
$[\alpha]_D$ = −14.0 (*c* 0.9, $CHCl_3$)
Absolute configuration: (4*R*,6*R*)

$C_{26}H_{36}O_4Si$
(4*R*,6*R*)-7-(*tert*-Butyldiphenylsilyloxy)-6-hydroxy-4-methylhept-2*E*-enoic acid ethyl ester

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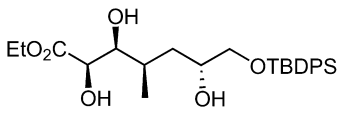
Pilar Formentín, Juan Murga,* Miguel Carda and J. Alberto Marco

Tetrahedron: Asymmetry *17 (2006) 2938*

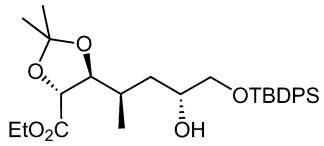


Ee = 100%
$[\alpha]_D$ = +9.1 (*c* 1.5, $CHCl_3$)
Absolute configuration: (2*R*,3*S*,4*R*,6*R*)

$C_{26}H_{38}O_6Si$
(2*R*,3*S*,4*R*,6*R*)-7-(*tert*-Butyldiphenylsilyloxy)-2,3,6-trihydroxy-4-methylheptanoic acid ethyl ester

Pilar Formentín, Juan Murga,* Miguel Carda and J. Alberto Marco

Tetrahedron: Asymmetry *17 (2006) 2938*



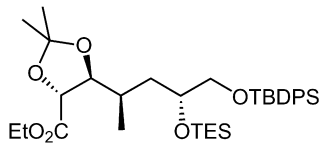
Ee = 100%
$[\alpha]_D = -2.0$ (*c* 1.7, $CHCl_3$)
Absolute configuration: (4*R*,5*S*,2′*R*,4′*R*)

$C_{29}H_{42}O_6Si$

(4*R*,5*S*)-5-[(2*R*,4*R*)-5-(*tert*-Butyldiphenylsilyloxy)-4-hydroxypent-2-yl]-2,2-dimethyl-1,3-dioxolane-4-carboxylic acid ethyl ester

Pilar Formentín, Juan Murga,* Miguel Carda and J. Alberto Marco

Tetrahedron: Asymmetry *17 (2006) 2938*



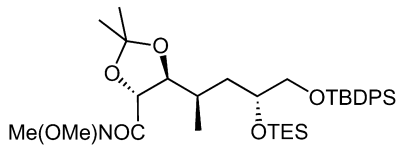
Ee = 100%
$[\alpha]_D = +7.1$ (*c* 1.6, $CHCl_3$)
Absolute configuration: (4*R*,5*S*,2′*R*,4′*R*)

$C_{35}H_{56}O_6Si_2$

(4*R*,5*S*)-5-[(2*R*,4*R*)-5-(*tert*-Butyldiphenylsilyloxy)-4-(triethylsilyloxy)pent-2-yl]-2,2-dimethyl-1,3-dioxolane-4-carboxylic acid ethyl ester

Pilar Formentín, Juan Murga,* Miguel Carda and J. Alberto Marco

Tetrahedron: Asymmetry *17 (2006) 2938*



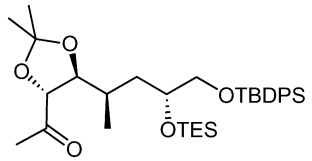
Ee = 100%
$[\alpha]_D = +13.2$ (*c* 1.1, $CHCl_3$)
Absolute configuration: (4*R*,5*S*,2′*R*,4′*R*)

$C_{35}H_{57}NO_6Si_2$

(4*R*,5*S*)-5-[(2*R*,4*R*)-5-(*tert*-Butyldiphenylsilyloxy)-4-(triethylsilyloxy)pent-2-yl]-2,2-dimethyl-1,3-dioxolane-4-carboxylic acid *N*-methoxy-*N*-methylamide

Pilar Formentín, Juan Murga,* Miguel Carda and J. Alberto Marco

Tetrahedron: Asymmetry *17 (2006) 2938*



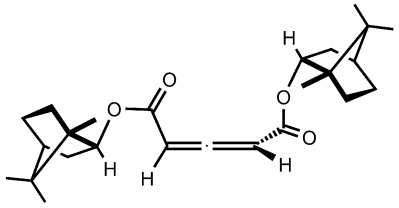
Ee = 100%
$[\alpha]_D = +17.7$ (*c* 0.8, $CHCl_3$)
Absolute configuration: (4*R*,5*S*,2′*R*,4′*R*)

$C_{34}H_{54}O_5Si_2$

1-{5-[(2*R*,4*R*)-5-(*tert*-Butyldiphenylsilyloxy)-4-(triethylsilyloxy)pent-2-yl]-(4*R*,5*S*)-2,2-dimethyl-[1,3]dioxolan-4-yl}-ethanone

Takahiro Katoh, Chie Noguchi, Hiroyuki Kimura, Toshio Fujiwara, Shogo Ichihashi, Kiyoharu Nishide, Tetsuya Kajimoto and Manabu Node*

Tetrahedron: Asymmetry *17 (2006) 2943*



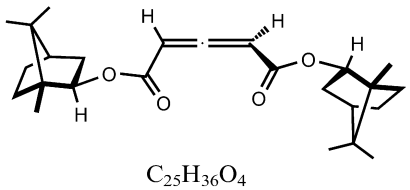
$[\alpha]_D^{26} = -206.8$ (c 0.98, $CHCl_3$)

$C_{25}H_{36}O_4$

(*R*)-(−)-Bis[(1*S*)-(−)-bornyl] 2,3-pentadienedioate

Takahiro Katoh, Chie Noguchi, Hiroyuki Kimura, Toshio Fujiwara, Shogo Ichihashi, Kiyoharu Nishide, Tetsuya Kajimoto and Manabu Node*

Tetrahedron: Asymmetry *17 (2006) 2943*



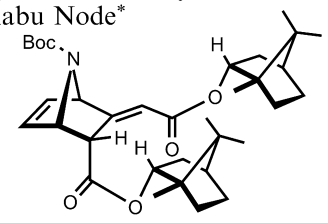
$[\alpha]_D^{25} = -263.8$ (c 1.43, $CHCl_3$)

$C_{25}H_{36}O_4$

(*R*)-(−)-Bis[(1*R*)-(−)-isobornyl] 2,3-pentadienedioate

Takahiro Katoh, Chie Noguchi, Hiroyuki Kimura, Toshio Fujiwara, Shogo Ichihashi, Kiyoharu Nishide, Tetsuya Kajimoto and Manabu Node*

Tetrahedron: Asymmetry *17 (2006) 2943*



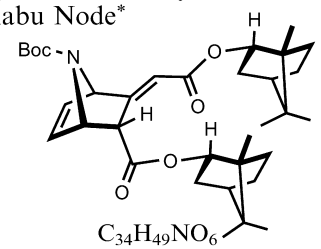
$[\alpha]_D^{31} = +19.3$ (c 0.64, $CHCl_3$)

$C_{34}H_{49}NO_6$

(1*S*,2*R*,3*E*,4*R*)-(+)-[(1*S*)-(−)-Bornyl] 3-[2-(−)-bornyloxy-2-oxoethylidene]-7-*tert*-butoxycarbonyl-7-azabicyclo[2.2.1]hept-5-ene-2-carboxylate

Takahiro Katoh, Chie Noguchi, Hiroyuki Kimura, Toshio Fujiwara, Shogo Ichihashi, Kiyoharu Nishide, Tetsuya Kajimoto and Manabu Node*

Tetrahedron: Asymmetry *17 (2006) 2943*



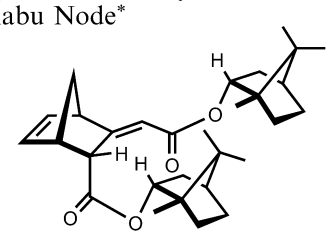
$[\alpha]_D^{27} = -16.7$ (c 2.46, $CHCl_3$)

$C_{34}H_{49}NO_6$

(1*S*,2*R*,3*E*,4*R*)-(−)-[(1*R*)-(−)-Isobornyl] 3-[2-(−)-isobornyloxy-2-oxoethylid-ene]-7-*tert*-butoxycarbonyl-7-azabicyclo[2.2.1]hept-5-ene-2-carboxylate

Takahiro Katoh, Chie Noguchi, Hiroyuki Kimura, Toshio Fujiwara, Shogo Ichihashi, Kiyoharu Nishide, Tetsuya Kajimoto and Manabu Node*

Tetrahedron: Asymmetry *17 (2006) 2943*



$[\alpha]_D^{26} = -31.5$ (c 0.64, $CHCl_3$)

$C_{30}H_{42}O_4$

(1*S*,2*R*,3*E*,4*R*)-(−)-[(1*S*)-(−)-Bornyl] 3-[2-(−)-bornyloxy-2-oxoethylidene]bicyclo[2.2.1]hept-5-ene-2-carboxylate