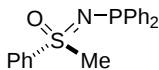


Taryn C. Kinahan and Heather Tye*

Tetrahedron: Asymmetry 12 (2001) 1255 $C_{19}H_{18}NOPS$ *(S)*-*N*-(Diphenylphosphinyl)-*S*-phenyl-*S*-methyl sulfoximide

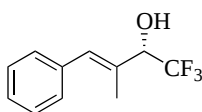
E.e. = 100%

 $[\alpha]_D^{20} = +48.0$ (*c* 1.0, $CHCl_3$)

Source of chirality: resolution

Absolute configuration: *S*

Valentine G. Nenajdenko,* Konstantin I. Smolko and Elizabeth S. Balenkova

Tetrahedron: Asymmetry 12 (2001) 1259 $C_{11}H_{11}F_3O$ *(2S,3E)*-1,1,1-Trifluoro-3-methyl-4-phenylbut-3-en-2-ol

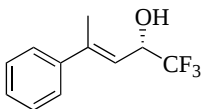
E.e. = 92%

 $[\alpha]_D^{20} = -12$ (*c* 1.6, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: 2*S*

Valentine G. Nenajdenko,* Konstantin I. Smolko and Elizabeth S. Balenkova

Tetrahedron: Asymmetry 12 (2001) 1259 $C_{11}H_{11}F_3O$ *(2S,3E)*-1,1,1-Trifluoro-4-phenylpent-3-en-2-ol

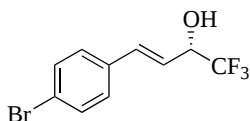
E.e. = 90%

 $[\alpha]_D^{20} = -8$ (*c* 1.6, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: 2*S*

Valentine G. Nenajdenko,* Konstantin I. Smolko and Elizabeth S. Balenkova

Tetrahedron: Asymmetry 12 (2001) 1259 $C_{10}H_8BrF_3O$ *(2S,3E)*-4-(4-Bromophenyl)-1,1,1-trifluorobut-3-en-2-ol

E.e. >99%

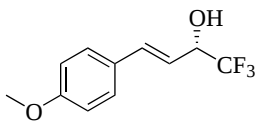
 $[\alpha]_D^{20} = -9.1$ (*c* 1.6, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: 2*S*

Valentine G. Nenajdenko,* Konstantin I. Smolko and Elizabeth S. Balenkova

Tetrahedron: Asymmetry 12 (2001) 1259



(2*S*,3*E*)-1,1,1-Trifluoro-4-(4-methoxyphenyl)but-3-en-2-ol

E.e. = 88%

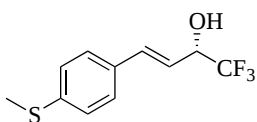
$[\alpha]_D^{20} = -12$ (*c* 1.6, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: 2*S*

Valentine G. Nenajdenko,* Konstantin I. Smolko and Elizabeth S. Balenkova

Tetrahedron: Asymmetry 12 (2001) 1259



(2*S*,3*E*)-1,1,1-Trifluoro-4-[4-(methylsulfonyl)phenyl]but-3-en-ol

E.e. >99%

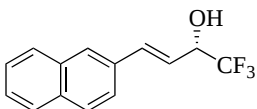
$[\alpha]_D^{20} = -7.5$ (*c* 1.6, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: 2*S*

Valentine G. Nenajdenko,* Konstantin I. Smolko and Elizabeth S. Balenkova

Tetrahedron: Asymmetry 12 (2001) 1259



(2*S*,3*E*)-1,1,1-Trifluoro-4-(2-naphthyl)but-3-en-2-ol

E.e. >99%

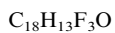
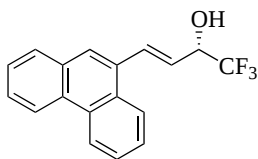
$[\alpha]_D^{20} = -9$ (*c* 1.6, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: 2*S*

Valentine G. Nenajdenko,* Konstantin I. Smolko and Elizabeth S. Balenkova

Tetrahedron: Asymmetry 12 (2001) 1259



(2*S*,3*E*)-1,1,1-Trifluoro-4-(9-phenanthryl)but-3-en-2-ol

E.e. >99%

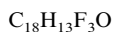
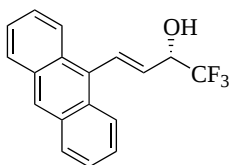
$[\alpha]_D^{20} = -9.5$ (*c* 1.6, acetone)

Source of chirality: asymmetric reduction

Absolute configuration: 2*S*

Valentine G. Nenajdenko,* Konstantin I. Smolko and Elizabeth S. Balenkova

Tetrahedron: Asymmetry 12 (2001) 1259



(2*S*,3*E*)-4-(9-Anthryl)-1,1,1-trifluorobut-3-en-2-ol

E.e. = 92%

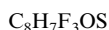
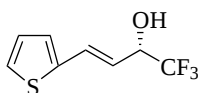
$[\alpha]_D^{20} = -8.7$ (*c* 1.6, acetone)

Source of chirality: asymmetric reduction

Absolute configuration: 2*S*

Valentine G. Nenajdenko,* Konstantin I. Smolko and Elizabeth S. Balenkova

Tetrahedron: Asymmetry 12 (2001) 1259



(2*S*,3*E*)-1,1,1-Trifluoro-4-thien-2-ylbut-3-en-2-ol

E.e. = 91%

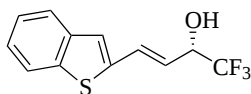
$[\alpha]_D^{20} = -11$ (*c* 1.6, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: 2*S*

Valentine G. Nenajdenko,* Konstantin I. Smolko and Elizabeth S. Balenkova

Tetrahedron: Asymmetry 12 (2001) 1259



(2*S*,3*E*)-4-(1-Benzothien-2-yl)-1,1,1-trifluorobut-3-en-2-ol

E.e. = 87%

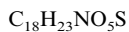
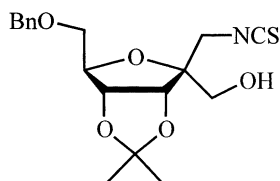
$[\alpha]_D^{20} = -21$ (*c* 1.6, $CHCl_3$)

Source of chirality: asymmetric reduction

Absolute configuration: 2*S*

Consolación Gasch, M. Angeles Pradera, Bader A. B. Salameh, José L. Molina and José Fuentes*

Tetrahedron: Asymmetry 12 (2001) 1267



6-*O*-Benzyl-2-deoxy-3,4-*O*-isopropylidene-2-isothiocyatomethyl- β -D-psicofuranose

D.e.: 100%

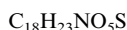
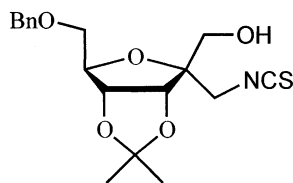
$[\alpha]_D = -43$ (*c* 1.0, CH_2Cl_2)

Source of chirality: D-fructose and stereoselective synthesis

Absolute configuration: (2*R*,3*R*,4*R*,5*R*)

Consolación Gasch, M. Angeles Pradera, Bader A. B. Salameh,
José L. Molina and José Fuentes*

Tetrahedron: Asymmetry 12 (2001) 1267



6-*O*-Benzyl-2-deoxy-3,4-*O*-isopropylidene-2-
isothiocyanatomethyl- α -D-psicofuranose

D.e.: 100%

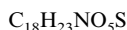
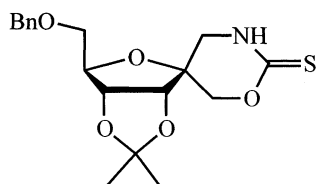
$[\alpha]_{\text{D}} = +5$ (c 0.8, CH_2Cl_2)

Source of chirality: D-fructose and stereoselective
synthesis

Absolute configuration: (2*S*,3*R*,4*R*,5*R*)

Consolación Gasch, M. Angeles Pradera, Bader A. B. Salameh,
José L. Molina and José Fuentes*

Tetrahedron: Asymmetry 12 (2001) 1267



(2*R*,3*R*,4*R*,5*R*)-9-Aza-2-benzoyloxymethyl-3,4-dimethylmethylenedioxy-
1,7-dioxaspiro[4.5]decane-8-thione

D.e.: 100%

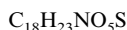
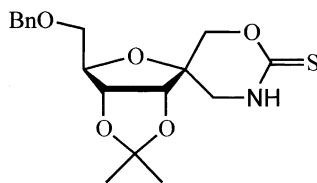
$[\alpha]_{\text{D}} = -22$ (c 1.1, CH_2Cl_2)

Source of chirality: D-fructose and stereoselective
synthesis

Absolute configuration: (2*R*,3*R*,4*R*,5*R*)

Consolación Gasch, M. Angeles Pradera, Bader A. B. Salameh,
José L. Molina and José Fuentes*

Tetrahedron: Asymmetry 12 (2001) 1267



(2*R*,3*R*,4*R*,5*S*)-9-Aza-2-benzoyloxymethyl-3,4-dimethylmethylenedioxy-
1,7-dioxaspiro[4.5]decane-8-thione

D.e.: 100%

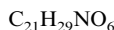
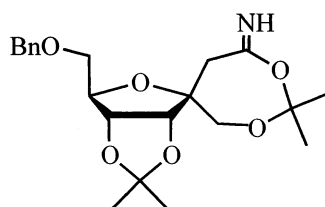
$[\alpha]_{\text{D}} = -4$ (c 0.7, CH_2Cl_2)

Source of chirality: D-fructose and stereoselective
synthesis

Absolute configuration: (2*R*,3*R*,4*R*,5*S*)

Consolación Gasch, M. Angeles Pradera, Bader A. B. Salameh,
José L. Molina and José Fuentes*

Tetrahedron: Asymmetry 12 (2001) 1267



(2*R*,3*R*,4*R*,5*R*)-2-Benzoyloxymethyl-8,8-dimethyl-3,4-dimethylmethylenedioxy-
10-imino-1,7,9-trioxaspiro[4.6]undecane

D.e.: 100%

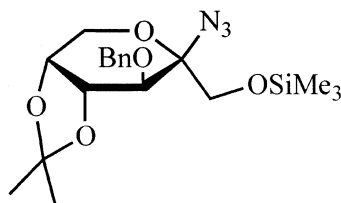
$[\alpha]_{\text{D}} = -77$ (c 0.9, CH_2Cl_2)

Source of chirality: D-fructose and stereoselective
synthesis

Absolute configuration: (2*R*,3*R*,4*R*,5*R*)

Consolación Gasch, M. Angeles Pradera, Bader A. B. Salameh,
José L. Molina and José Fuentes*

Tetrahedron: Asymmetry 12 (2001) 1267



2-Azido-3-*O*-benzyl-2-deoxy-4,5-*O*-isopropylidene-
1-*O*-trimethylsilyl- β -D-fructopyranose

D.e.: 100%

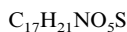
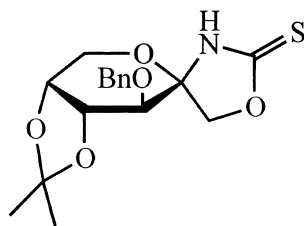
$[\alpha]_D = -126$ (*c* 0.9, CH_2Cl_2)

Source of chirality: D-fructose and stereoselective
synthesis

Absolute configuration: (2*R*,3*S*,4*R*,5*R*)

Consolación Gasch, M. Angeles Pradera, Bader A. B. Salameh,
José L. Molina and José Fuentes*

Tetrahedron: Asymmetry 12 (2001) 1267



(5*R*,8*R*,9*R*,10*S*)-1-Aza-10-benzyloxy-8,9-dimethylmethylenedioxy-
3,6-dioxaspiro[4.5]decane-2-thione

D.e.: 100%

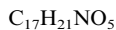
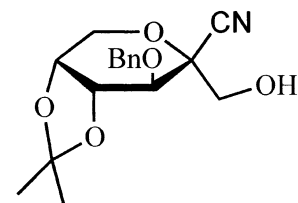
$[\alpha]_D = -78$ (*c* 1.0, CH_2Cl_2)

Source of chirality: D-fructose and stereoselective
synthesis

Absolute configuration: (5*R*,8*R*,9*R*,10*S*)

Consolación Gasch, M. Angeles Pradera, Bader A. B. Salameh,
José L. Molina and José Fuentes*

Tetrahedron: Asymmetry 12 (2001) 1267



3-*O*-Benzyl-2-cyano-2-deoxy-4,5-*O*-isopropylidene- β -D-fructopyranose

D.e.: 100%

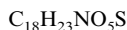
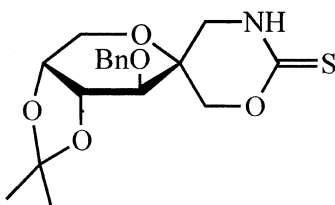
$[\alpha]_D = -88$ (*c* 1.5, CH_2Cl_2)

Source of chirality: D-fructose and stereoselective
synthesis

Absolute configuration: (2*R*,3*S*,4*R*,5*R*)

Consolación Gasch, M. Angeles Pradera, Bader A. B. Salameh,
José L. Molina and José Fuentes*

Tetrahedron: Asymmetry 12 (2001) 1267



(3*R*,4*R*,5*S*,6*R*)-10-Aza-5-benzyloxy-3,4-dimethylmethylenedioxy-
1,8-dioxaspiro[5.5]undecane-9-thione

D.e.: 100%

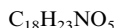
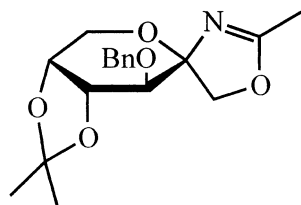
$[\alpha]_D = +29$ (*c* 1.4, CH_2Cl_2)

Source of chirality: D-fructose and stereoselective
synthesis

Absolute configuration: (3*R*,4*R*,5*S*,6*R*)

Consolación Gasch, M. Angeles Pradera, Bader A. B. Salameh,
José L. Molina and José Fuentes*

Tetrahedron: Asymmetry 12 (2001) 1267



(5*R*,8*R*,9*R*,10*S*)-1-Aza-10-benzyloxy-8,9-dimethylmethylenedioxy-
2-methyl-3,6-dioxaspiro[4.5]dec-1-ene

D.e.: 100%

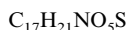
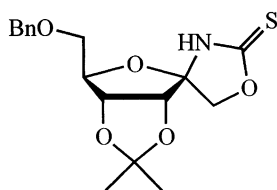
$[\alpha]_{\text{D}} = -77$ (*c* 0.8, CH_2Cl_2)

Source of chirality: D-fructose and stereoselective
synthesis

Absolute configuration: (5*R*,8*R*,9*R*,10*S*)

Consolación Gasch, M. Angeles Pradera, Bader A. B. Salameh,
José L. Molina and José Fuentes*

Tetrahedron: Asymmetry 12 (2001) 1267



(2*R*,3*R*,4*R*,5*R*)-6-Aza-2-benzyloxymethyl-3,4-dimethylmethylenedioxy-
1,8-dioxaspiro[4.4]nonane-7-thione

D.e.: 100%

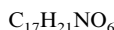
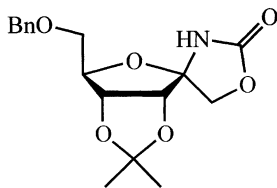
$[\alpha]_{\text{D}} = -119$ (*c* 0.9, CH_2Cl_2)

Source of chirality: D-fructose and stereoselective
synthesis

Absolute configuration: (2*R*,3*R*,4*R*,5*R*)

Consolación Gasch, M. Angeles Pradera, Bader A. B. Salameh,
José L. Molina and José Fuentes*

Tetrahedron: Asymmetry 12 (2001) 1267



(2*R*,3*R*,4*R*,5*R*)-6-Aza-2-benzyloxymethyl-3,4-dimethylmethylenedioxy-
1,8-dioxaspiro[4.4]nonane-7-one

D.e.: 100%

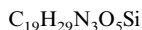
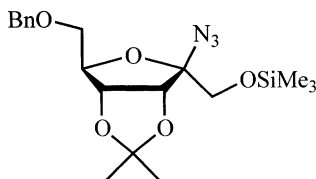
$[\alpha]_{\text{D}} = -79$ (*c* 0.8, CH_2Cl_2)

Source of chirality: D-fructose and stereoselective
synthesis

Absolute configuration: (2*R*,3*R*,4*R*,5*R*)

Consolación Gasch, M. Angeles Pradera, Bader A. B. Salameh,
José L. Molina and José Fuentes*

Tetrahedron: Asymmetry 12 (2001) 1267



2-Azido-6-*O*-benzyl-2-deoxy-3,4-*O*-isopropylidene-1-*O*-
trimethylsilyl-β-D-psicofuranose

D.e.: 100%

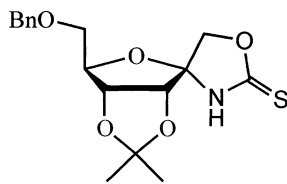
$[\alpha]_{\text{D}} = -87$ (*c* 1.0, CH_2Cl_2)

Source of chirality: D-fructose and stereoselective
synthesis

Absolute configuration: (2*R*,3*R*,4*R*,5*R*)

Consolación Gasch, M. Angeles Pradera, Bader A. B. Salameh,
José L. Molina and José Fuentes*

Tetrahedron: Asymmetry 12 (2001) 1267



$C_{17}H_{21}NO_5S$

(2*R*,3*R*,4*R*,5*S*)-6-Aza-2-benzoyloxymethyl-3,4-dimethylmethylenedioxy-
1,8-dioxaspiro[4.4]nonane-7-thione

D.e.: 100%

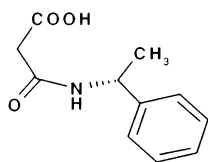
$[\alpha]_D = -128$ (c 0.9, CH_2Cl_2)

Source of chirality: D-fructose and stereoselective
synthesis

Absolute configuration: (2*R*,3*R*,4*R*,5*S*)

Zoltán Finta, Zoltán Hell,* József Bálint, Adrienn Takács,
László Párkányi and László Tőke

Tetrahedron: Asymmetry 12 (2001) 1287



$C_{11}H_{13}NO_3$

Malonic acid (*R*)-(+)-1-phenyl-ethylamide

E.e. >98% (not determined; intermediate in a
reaction series of known e.e.)

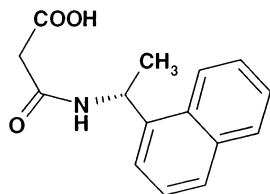
$[\alpha]_D = +116.4$ (c = 1, methanol)

Source of chirality: enantiopure starting material

Absolute configuration: (*R*) (from the known
absolute configuration of its precursor)

Zoltán Finta, Zoltán Hell,* József Bálint, Adrienn Takács,
László Párkányi and László Tőke

Tetrahedron: Asymmetry 12 (2001) 1287



$C_{15}H_{15}NO_3$

Malonic acid (*R*)-(+)-1-(1-naphthyl)-ethylamide

E.e. >98% (not determined; intermediate in a
reaction series of known e.e.)

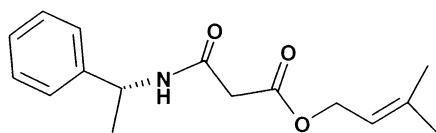
$[\alpha]_D = +41.5$ (c = 1, methanol)

Source of chirality: enantiopure starting material

Absolute configuration: (*R*) (by the known
absolute configuration of its precursor)

Zoltán Finta, Zoltán Hell,* József Bálint, Adrienn Takács,
László Párkányi and László Tőke

Tetrahedron: Asymmetry 12 (2001) 1287



$C_{16}H_{21}NO_3$

Malonic acid [(*R*)-(+)-1-phenylethylamide]-3-methyl-2-buten-1-yl ester

E.e. >98% (not determined; intermediate in a
reaction series of known e.e.)

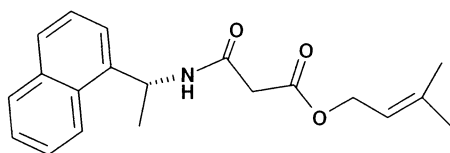
$[\alpha]_D = +85.8$ (c = 1, methanol)

Source of chirality: enantiopure starting material

Absolute configuration: (*R*) (by the known
absolute configuration of its precursor)

Zoltán Finta, Zoltán Hell,* József Bálint, Adrienn Takács,
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$C_{20}H_{22}NO_3$

Malonic acid [(R)-(+)-1-(1-naphthyl)ethylamide]-3-methyl-2-buten-1-yl ester

E.e. >98% (not determined; intermediate in a reaction series of known e.e.)

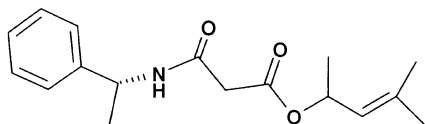
$[\alpha]_D = +21.4$ ($c = 1$, methanol)

Source of chirality: enantiopure starting material

Absolute configuration: (*R*) (by the known absolute configuration of its precursor)

Zoltán Finta, Zoltán Hell,* József Bálint, Adrienn Takács,
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Tetrahedron: Asymmetry 12 (2001) 1287



$C_{17}H_{23}NO_3$

Malonic acid [(R)-(+)-1-phenylethylamide]-2-methyl-2-penten-4-yl ester

E.e. >98% (not determined; intermediate in a reaction series of known e.e.)

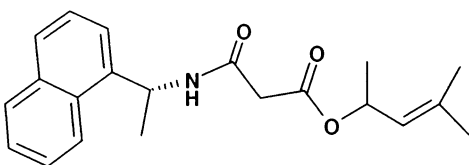
$[\alpha]_D = +57.7$ ($c = 1$, methanol)

Source of chirality: enantiopure starting material

Absolute configuration: (*R*) (by the known absolute configuration of its precursor)

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Tetrahedron: Asymmetry 12 (2001) 1287



$C_{21}H_{25}NO_3$

Malonic acid [(R)-(+)-1-(1-naphthyl)ethylamide] 2-methyl-2-penten-4-yl ester

E.e. >98% (not determined; intermediate in a reaction series of known e.e.)

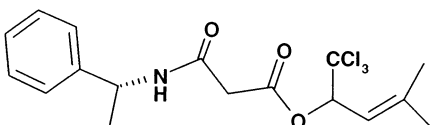
$[\alpha]_D = +24.7$ ($c = 1$, methanol)

Source of chirality: enantiopure starting material

Absolute configuration: (*R*) (by the known absolute configuration of its precursor)

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Tetrahedron: Asymmetry 12 (2001) 1287



$C_{17}H_{20}Cl_3NO_3$

Malonic acid [(R)-(+)-1-phenylethylamide]-4-methyl-1,1,1-trichloro-3-penten-2-yl ester

E.e. >98% (not determined; intermediate in a reaction series of known e.e.)

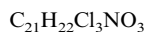
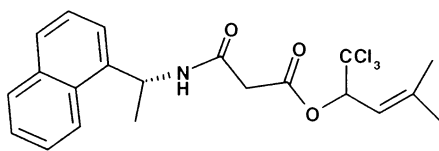
$[\alpha]_D = +64.7$ ($c = 1$, methanol)

Source of chirality: enantiopure starting material

Absolute configuration: (*R*) (by the known absolute configuration of its precursor)

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Malonic acid [(R)-(+)-1-phenylethylamide]-4-methyl-1,1,1-trichloro-3-penten-2-yl ester

E.e. >98% (not determined; intermediate in a reaction series of known e.e.)

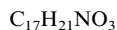
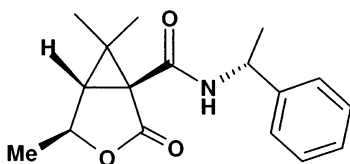
$[\alpha]_D = +35.7$ ($c = 1$, methanol)

Source of chirality: enantiopure starting material

Absolute configuration: (R) (by the known absolute configuration of its precursor)

Zoltán Finta, Zoltán Hell,* József Bálint, Adrienn Takács,
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6,6-Dimethyl-4-methyl-3-oxa-bicyclo[3.1.0]hexan-2-on-1-carboxylic acid
(R)-(+)-1-phenylethylamide

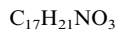
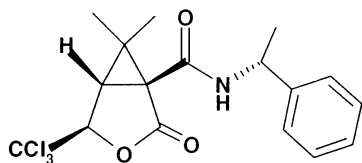
E.e. >98%

$[\alpha]_D = +35.5$ ($c = 1$, methanol)

Absolute configuration: (1R,4S,5R, α R)

Zoltán Finta, Zoltán Hell,* József Bálint, Adrienn Takács,
László Párkányi and László Tőke

Tetrahedron: Asymmetry 12 (2001) 1287



6,6-Dimethyl-4-trichloromethyl-3-oxa-bicyclo[3.1.0]hexan-2-on-1-carboxylic acid
(R)-(+)-1-phenylethylamide

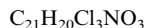
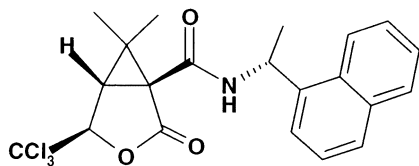
E.e. >98%

$[\alpha]_D = +22.8$ ($c = 1$, methanol)

Absolute configuration: (1R,4R,5R, α R)

Zoltán Finta, Zoltán Hell,* József Bálint, Adrienn Takács,
László Párkányi and László Tőke

Tetrahedron: Asymmetry 12 (2001) 1287



6,6-Dimethyl-4-trichloromethyl-3-oxa-bicyclo[3.1.0]hexan-2-on-1-carboxylic acid
(R)-(+)-1-(1-naphthyl)ethylamide

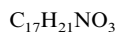
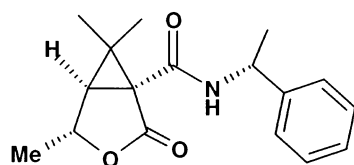
E.e. >98%

$[\alpha]_D = -6.7$ ($c = 1$, methanol)

Absolute configuration: (1R,4R,5R, α R)

Zoltán Finta, Zoltán Hell,* József Bálint, Adrienn Takács,
László Párkányi and László Tőke

Tetrahedron: Asymmetry 12 (2001) 1287



6,6-Dimethyl-4-methyl-3-oxa-bicyclo[3.1.0]hexan-2-on-1-carboxylic acid
(*R*)-(+)-1-phenylethylamide

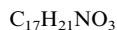
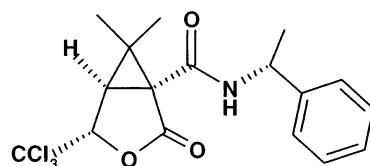
E.e. >98%

$[\alpha]_D = +60.4$ ($c = 1$, methanol)

Absolute configuration: (1*S*,4*R*,5*S*, α *R*)

Zoltán Finta, Zoltán Hell,* József Bálint, Adrienn Takács,
László Párkányi and László Tőke

Tetrahedron: Asymmetry 12 (2001) 1287



6,6-Dimethyl-4-trichloromethyl-3-oxa-bicyclo[3.1.0]hexan-2-on-1-carboxylic acid
(*R*)-(+)-1-phenylethylamide

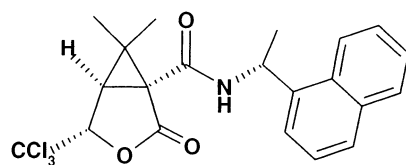
E.e. >98%

$[\alpha]_D = +71.0$ ($c = 1$, methanol)

Absolute configuration: (1*S*,4*S*,5*S*, α *R*)

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László Párkányi and László Tőke

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6,6-Dimethyl-4-trichloromethyl-3-oxa-bicyclo[3.1.0]hexan-2-on-1-carboxylic acid
(*R*)-(+)-1-(1-naphthyl)ethylamide

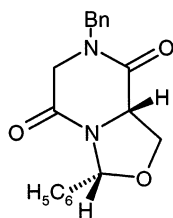
E.e. >98%

$[\alpha]_D = +13.8$ ($c = 1$, methanol)

Absolute configuration: (1*S*,4*S*,5*S*, α *R*)

Stephan Bedürftig, Manuela Weigl and Bernhard Wunsch*

Tetrahedron: Asymmetry 12 (2001) 1293

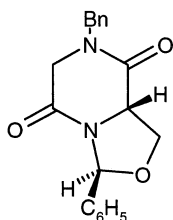


(-)-(6*S*,9*R*)-4-Benzyl-9-phenyl-8-oxa-1,4-diazabicyclo[4.3.0]nonane-2,5-dione

$[\alpha]_D^{20} = -196.9$ ($c = 0.645$, CH_2Cl_2)

Source of chirality: (*S*)-serine

Absolute configuration: (6*S*,9*R*)

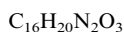
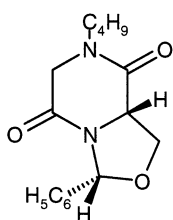


(+)-(6*S*,9*S*)-4-Benzyl-9-phenyl-8-oxa-1,4-diazabicyclo[4.3.0]nonane-2,5-dione

$[\alpha]_{\text{D}}^{20} = +0.9$ ($c = 0.505$, CH_2Cl_2)

Source of chirality: (*S*)-serine

Absolute configuration: (6*S*,9*S*)

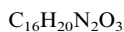
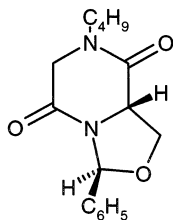


(-)-(6*S*,9*R*)-4-Butyl-9-phenyl-8-oxa-1,4-diazabicyclo[4.3.0]nonane-2,5-dione

$[\alpha]_{\text{D}}^{20} = -166.5$ ($c = 0.895$, CH_2Cl_2)

Source of chirality: (*S*)-serine

Absolute configuration: (6*S*,9*R*)

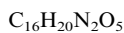
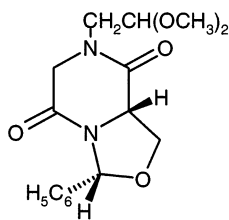


(-)-(6*S*,9*S*)-4-Butyl-9-phenyl-8-oxa-1,4-diazabicyclo[4.3.0]nonane-2,5-dione

$[\alpha]_{\text{D}}^{20} = -54.5$ ($c = 1.14$, CH_2Cl_2)

Source of chirality: (*S*)-serine

Absolute configuration: (6*S*,9*S*)



(-)-(6*S*,9*R*)-4-(2,2-Dimethoxyethyl)-9-phenyl-8-oxa-1,4-diazabicyclo[4.3.0]nonane-2,5-dione

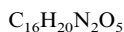
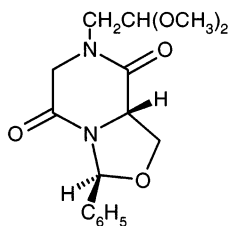
$[\alpha]_{\text{D}}^{20} = -180.5$ ($c = 1.29$, CH_2Cl_2)

Source of chirality: (*S*)-serine

Absolute configuration: (6*S*,9*R*)

Stephan Bedürftig, Manuela Weigl and Bernhard Wunsch*

Tetrahedron: Asymmetry 12 (2001) 1293



(-)-(6*S*,9*S*)-4-(2,2-Dimethoxyethyl)-9-phenyl-8-oxa-1,4-diazabicyclo[4.3.0]nonane-2,5-dione

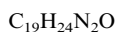
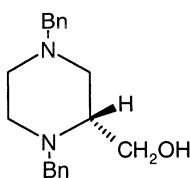
$[\alpha]_D^{20} = -48.0$ ($c = 0.89$, CH_2Cl_2)

Source of chirality: (*S*)-serine

Absolute configuration: (6*S*,9*S*)

Stephan Bedürftig, Manuela Weigl and Bernhard Wunsch*

Tetrahedron: Asymmetry 12 (2001) 1293



(+)-[(2*R*)-1,4-Dibenzylpiperazin]-2-yl]methanol

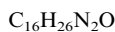
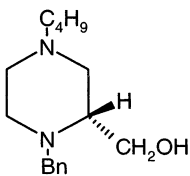
$[\alpha]_D^{20} = +30.0$ ($c = 1.165$, CH_2Cl_2)

Source of chirality: (*S*)-serine

Absolute configuration: (2*R*)

Stephan Bedürftig, Manuela Weigl and Bernhard Wunsch*

Tetrahedron: Asymmetry 12 (2001) 1293



(+)-[(2*R*)-1-Benzyl-4-butylpiperazin]-2-yl]methanol

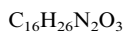
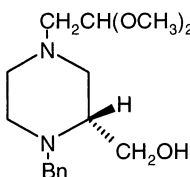
$[\alpha]_D^{20} = +19.4$ ($c = 0.875$, CH_2Cl_2)

Source of chirality: (*S*)-serine

Absolute configuration: (2*R*)

Stephan Bedürftig, Manuela Weigl and Bernhard Wunsch*

Tetrahedron: Asymmetry 12 (2001) 1293

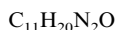
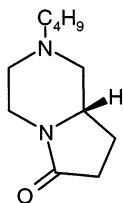
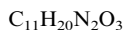
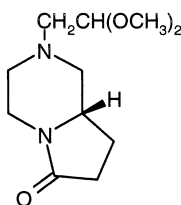
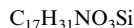
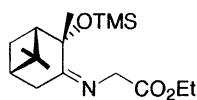


(+)-[(2*R*)-1-Benzyl-4-(2,2-dimethoxyethyl)piperazin]-2-yl]methanol

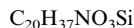
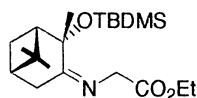
$[\alpha]_D^{20} = +21.9$ ($c = 1.12$, CH_2Cl_2)

Source of chirality: (*S*)-serine

Absolute configuration: (2*R*)

(-)-(6*S*)-4-Butyl-1,4-diazabicyclo[4.3.0]nonan-9-one[α]_D²⁰ = +32.5 (*c* = 1.82, CH₂Cl₂)Source of chirality: (*S*)-serineAbsolute configuration: (6*S*)(-)-[(6*S*)-4-(2,2-Dimethoxyethyl)-1,4-diazabicyclo[4.3.0]nonan-9-one[α]_D²⁰ = +27.9 (*c* = 1.4, CH₂Cl₂)Source of chirality: (*S*)-serineAbsolute configuration: (6*S*)(1'*S*,2'*S*,5'*S*)-Ethyl 2-[(2'-trimethylsiloxypinyldene)amino]acetate

E.e. = 100%

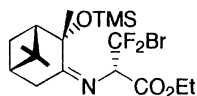
[α]_D²⁵ = +15.9 (*c* 1.21, CHCl₃)Source of chirality: (1*R*)-(+)-α-pineneAbsolute configuration: (1'*S*,2'*S*,5'*S*)(1'*S*,2'*S*,5'*S*)-Ethyl 2-[(2'-*tert*-butyldimethylsiloxypinyldene)amino]acetate

E.e. = 100%

[α]_D²⁵ = +10.2 (*c* 0.58, CHCl₃)Source of chirality: (1*R*)-(+)-α-pineneAbsolute configuration: (1'*S*,2'*S*,5'*S*)

Toshimasa Katagiri, Michiharu Handa, Yasuhisa Matsukawa,
J. S. Dileep Kumar and Kenji Uneyama*

Tetrahedron: Asymmetry 12 (2001) 1303



(1'S,2'S,5'S,2S)-Ethyl 2-[(2'-trimethylsiloxypropylidene)amino]-
3-bromo-3,3-difluoropropanoate

E.e. = 100%

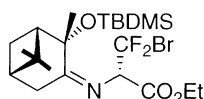
$[\alpha]_{\text{D}}^{24} = +91.3$ (*c* 0.72, CHCl_3)

Source of chirality: diastereomeric synthesis

Absolute configuration: (1'S,2'S,5'S,2S)

Toshimasa Katagiri, Michiharu Handa, Yasuhisa Matsukawa,
J. S. Dileep Kumar and Kenji Uneyama*

Tetrahedron: Asymmetry 12 (2001) 1303



(1'S,2'S,5'S,2S)-Ethyl 2-[(2'-*tert*-butyltrimethylsiloxypropylidene)amino]-
3-bromo-3,3-difluoropropanoate

E.e. = 100%

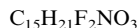
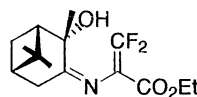
$[\alpha]_{\text{D}}^{27} = -12.46$ (*c* 0.58, CHCl_3)

Source of chirality: diastereomeric synthesis

Absolute configuration: (1'S,2'S,5'S,2S)

Toshimasa Katagiri, Michiharu Handa, Yasuhisa Matsukawa,
J. S. Dileep Kumar and Kenji Uneyama*

Tetrahedron: Asymmetry 12 (2001) 1303



(1'S,2'S,5'S)-Ethyl 2-[(2'-hydroxypropylidene)amino]-3,3-difluoro-2-propeno-1-ate

E.e. = 100%

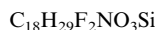
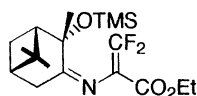
$[\alpha]_{\text{D}}^{27} = -9.37$ (*c* 0.72, CHCl_3)

Source of chirality: (1*R*)-(+)- α -pinene

Absolute configuration: (1'S,2'S,5'S)

Toshimasa Katagiri, Michiharu Handa, Yasuhisa Matsukawa,
J. S. Dileep Kumar and Kenji Uneyama*

Tetrahedron: Asymmetry 12 (2001) 1303



(1'S,2'S,5'S)-Ethyl 2-[(2'-trimethylsiloxypropylidene)amino]-3,3-difluoro-
2-propeno-1-ate

E.e. = 100%

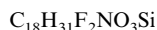
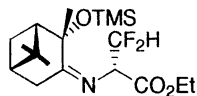
$[\alpha]_{\text{D}}^{24} = +7.19$ (*c* 1.40, CHCl_3)

Source of chirality: (1*R*)-(+)- α -pinene

Absolute configuration: (1'S,2'S,5'S)

Toshimasa Katagiri, Michiharu Handa, Yasuhisa Matsukawa,
J. S. Dileep Kumar and Kenji Uneyama*

Tetrahedron: Asymmetry 12 (2001) 1303



(1'S,2'S,5'S,2S)-Ethyl 2-[(2'-trimethylsiloxypinylidene)amino]-3,3-difluoropropano-1-ate

E.e. >80%

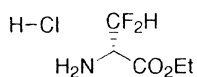
$[\alpha]_D^{24} = -90.8$ (*c* 1.53, CHCl_3)

Source of chirality: diastereomeric synthesis

Absolute configuration: (1'S,2'S,5'S,2S)

Toshimasa Katagiri, Michiharu Handa, Yasuhisa Matsukawa,
J. S. Dileep Kumar and Kenji Uneyama*

Tetrahedron: Asymmetry 12 (2001) 1303



(2S)-Ethyl 2-amino-3,3-difluoropropano-1-ate hydrochloride

E.e. >80%

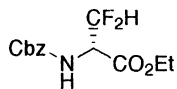
$[\alpha]_D^{25} = -8.1$ (*c* 2.20, MeOH)

Source of chirality: diastereomeric synthesis

Absolute configuration: (2S)

Toshimasa Katagiri, Michiharu Handa, Yasuhisa Matsukawa,
J. S. Dileep Kumar and Kenji Uneyama*

Tetrahedron: Asymmetry 12 (2001) 1303



(2S)-Ethyl 2-[N-(benzyloxycarbonyl)amino]-3,3-difluoropentano-1-ate

E.e. = 80%

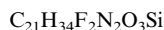
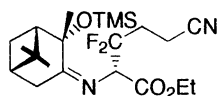
$[\alpha]_D^{27} = -13.0$ (*c* 2.30, CHCl_3)

Source of chirality: diastereomeric synthesis

Absolute configuration: (2S)

Toshimasa Katagiri, Michiharu Handa, Yasuhisa Matsukawa,
J. S. Dileep Kumar and Kenji Uneyama*

Tetrahedron: Asymmetry 12 (2001) 1303



(1'S,2'S,5'S,2S)-Ethyl 2-[(2'-trimethylsiloxypinylidene)amino]-5-cyano-3,3-difluoropentano-1-ate

E.e. >98%

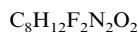
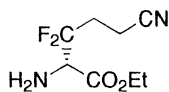
$[\alpha]_D^{24} = +104.8$ (*c* 0.41, CHCl_3)

Source of chirality: diastereomeric synthesis

Absolute configuration: (1'S,2'S,5'S,2S)

Toshimasa Katagiri, Michiharu Handa, Yasuhisa Matsukawa,
J. S. Dileep Kumar and Kenji Uneyama*

Tetrahedron: Asymmetry 12 (2001) 1303



(2*S*)-Ethyl 2-amino-5-cyano-3,3-difluoropentano-1-ate

E.e. = 98%

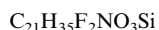
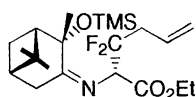
$[\alpha]_{\text{D}}^{27} = -30.9$ (*c* 1.00, CHCl_3)

Source of chirality: diastereomeric synthesis

Absolute configuration: (2*S*)

Toshimasa Katagiri, Michiharu Handa, Yasuhisa Matsukawa,
J. S. Dileep Kumar and Kenji Uneyama*

Tetrahedron: Asymmetry 12 (2001) 1303



(1'*S*,2'*S*,5'*S*,2*S*)-Ethyl 2-[(2'-trimethylsiloxypinylydene)amino]-3,3-difluoro-5-hexeno-1-ate

E.e. >96%

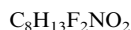
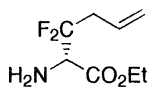
$[\alpha]_{\text{D}}^{24} = +109.7$ (*c* 1.20, CHCl_3)

Source of chirality: diastereomeric synthesis

Absolute configuration: (1'*S*,2'*S*,5'*S*,2*S*)

Toshimasa Katagiri, Michiharu Handa, Yasuhisa Matsukawa,
J. S. Dileep Kumar and Kenji Uneyama*

Tetrahedron: Asymmetry 12 (2001) 1303



(2*S*)-Ethyl 2-amino-3,3-difluoro-5-hexeno-1-ate

E.e. = 96%

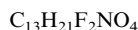
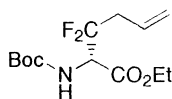
$[\alpha]_{\text{D}}^{27} = -55.4$ (*c* 0.82, CHCl_3)

Source of chirality: diastereomeric synthesis

Absolute configuration: (2*S*)

Toshimasa Katagiri, Michiharu Handa, Yasuhisa Matsukawa,
J. S. Dileep Kumar and Kenji Uneyama*

Tetrahedron: Asymmetry 12 (2001) 1303



(2*S*)-Ethyl 2-[*N*-(*tert*-butoxycarbonyl)amino]-3,3-difluoro-5-hexeno-1-ate

E.e. >95%

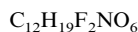
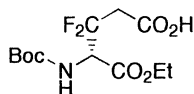
$[\alpha]_{\text{D}}^{25} = -22.6$ (*c* 0.62, CHCl_3)

Source of chirality: diastereomeric synthesis

Absolute configuration: (2*S*)

Toshimasa Katagiri, Michiharu Handa, Yasuhisa Matsukawa,
J. S. Dileep Kumar and Kenji Uneyama*

Tetrahedron: Asymmetry 12 (2001) 1303



(2*S*)-Ethyl 2-[*N*-(*tert*-butoxycarbonyl)amino]-4-carboxyl-3,3-difluorobutano-1-ate

E.e. >95%

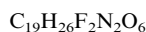
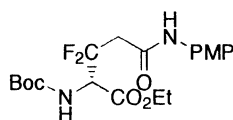
$[\alpha]_{\text{D}}^{25} = -14.8$ (*c* 2.95, CHCl_3)

Source of chirality: diastereomeric synthesis

Absolute configuration: (2*S*)

Toshimasa Katagiri, Michiharu Handa, Yasuhisa Matsukawa,
J. S. Dileep Kumar and Kenji Uneyama*

Tetrahedron: Asymmetry 12 (2001) 1303



(2*S*)-Ethyl 2-[*N*-(*tert*-butoxycarbonyl)amino]-3,3-difluoro-4-[*N*-(4'-methoxyphenyl)carbamoyl]butano-1-ate

E.e. = 95%

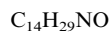
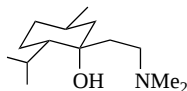
$[\alpha]_{\text{D}}^{23} = +7.1$ (*c* 0.64, CHCl_3)

Source of chirality: diastereomeric synthesis

Absolute configuration: (2*S*)

Stefan Panev, Anthony Linden and Vladimir Dimitrov*

Tetrahedron: Asymmetry 12 (2001) 1313



(1*R*,2*S*,5*R*)-1-(2'-Dimethylaminoethyl)-2-*iso*-propyl-5-methylcyclohexan-1-ol

D.e. 92%

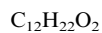
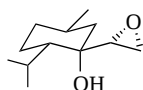
$[\alpha]_{\text{D}}^{20} = -17.2$ (*c* 1.00, CHCl_3)

Source of chirality: (–)-menthone

Absolute configuration: (1*R*,2*S*,5*R*)

Stefan Panev, Anthony Linden and Vladimir Dimitrov*

Tetrahedron: Asymmetry 12 (2001) 1313



(1*S*,2*S*,5*R*)-1-Epoxyethyl-2-*iso*-propyl-5-methylcyclohexan-1-ol

D.e. 100%

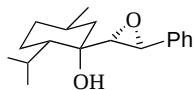
$[\alpha]_{\text{D}}^{20} = -4.8$ (*c* 0.99, CHCl_3)

Source of chirality: (–)-menthone

Absolute configuration: (1*S*,2*S*,5*R*) (1'*R* proposed)

Stefan Panev, Anthony Linden and Vladimir Dimitrov*

Tetrahedron: Asymmetry 12 (2001) 1313



$C_{18}H_{26}O_2$

(1*S*,2*S*,5*R*,1'*R*,2'*S*)-1-(2'-Phenylepoxyethyl)-2-*iso*-propyl-5-methylcyclohexan-1-ol

D.e. 100%

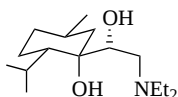
$[\alpha]_D^{20} = -31.2$ (*c* 1.06, $CHCl_3$)

Source of chirality: (–)-menthone

Absolute configuration: (1*S*,2*S*,5*R*,1'*R*,2'*S*)
(determined by X-ray crystallography)

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Tetrahedron: Asymmetry 12 (2001) 1313



$C_{16}H_{33}NO_2$

(1*S*,2*S*,5*R*)-1-(2'-*N,N*-Diethylamino-1'-hydroxyethyl)-2-*iso*-propyl-5-methylcyclohexan-1-ol

D.e. 100%

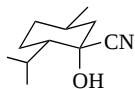
$[\alpha]_D^{20} = 0$ (*c* 1.03, $CHCl_3$)

Source of chirality: (–)-menthone

Absolute configuration: (1*S*,2*S*,5*R*) (1'*R* proposed)

Stefan Panev, Anthony Linden and Vladimir Dimitrov*

Tetrahedron: Asymmetry 12 (2001) 1313



$C_{11}H_{19}NO$

(1*S*,2*S*,5*R*)-1-Hydroxy-2-*iso*-propyl-5-methylcyclohex-1-yl-carbonitrile

D.e. 100%

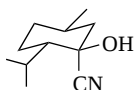
$[\alpha]_D^{20} = +1.9$ (*c* 1.02, $CHCl_3$)

Source of chirality: (–)-menthone

Absolute configuration: (1*S*,2*S*,5*R*)

Stefan Panev, Anthony Linden and Vladimir Dimitrov*

Tetrahedron: Asymmetry 12 (2001) 1313



$C_{11}H_{19}NO$

(1*R*,2*S*,5*R*)-1-Hydroxy-2-*iso*-propyl-5-methylcyclohex-1-yl-carbonitrile

D.e. 100%

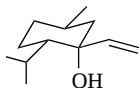
$[\alpha]_D^{20} = -12.9$ (*c* 1.05, $CHCl_3$)

Source of chirality: (–)-menthone

Absolute configuration: (1*R*,2*S*,5*R*)

Stefan Panev, Anthony Linden and Vladimir Dimitrov*

Tetrahedron: Asymmetry 12 (2001) 1313



$C_{12}H_{22}O$

(1*R*,2*S*,5*R*)-1-Vinyl-2-*iso*-propyl-5-methylcyclohexan-1-ol

D.e. 100%

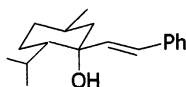
$[\alpha]_D^{20} = -19.2$ (*c* 1.02, $CHCl_3$)

Source of chirality: (–)-menthone

Absolute configuration: (1*R*,2*S*,5*R*)

Stefan Panev, Anthony Linden and Vladimir Dimitrov*

Tetrahedron: Asymmetry 12 (2001) 1313



$C_{18}H_{26}O$

(1*S*,2*S*,5*R*)-1-(*E*-2-Phenylethenyl)-2-*iso*-propyl-5-methylcyclohexan-1-ol

D.e. 100%

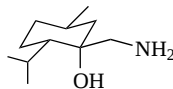
$[\alpha]_D^{20} = -54.7$ (*c* 1.04, $CHCl_3$)

Source of chirality: (–)-menthone

Absolute configuration: (1*S*,2*S*,5*R*)

Stefan Panev, Anthony Linden and Vladimir Dimitrov*

Tetrahedron: Asymmetry 12 (2001) 1313



$C_{11}H_{23}NO$

(1*S*,2*S*,5*R*)-1-Aminomethyl-2-*iso*-propyl-5-methylcyclohexan-1-ol

D.e. 100%

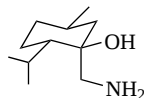
$[\alpha]_D^{20} = 0$ (*c* 1.04, MeOH)

Source of chirality: (–)-menthone

Absolute configuration: (1*S*,2*S*,5*R*)

Stefan Panev, Anthony Linden and Vladimir Dimitrov*

Tetrahedron: Asymmetry 12 (2001) 1313



$C_{11}H_{23}NO$

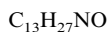
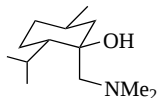
(1*R*,2*S*,5*R*)-1-Aminomethyl-2-*iso*-propyl-5-methylcyclohexan-1-ol

D.e. 100%

$[\alpha]_D^{20} = -26.2$ (*c* 1.10, MeOH)

Source of chirality: (–)-menthone

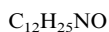
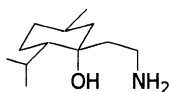
Absolute configuration: (1*R*,2*S*,5*R*)

(1*R*,2*S*,5*R*)-1-*N,N*-Dimethylaminomethyl-2-*iso*-propyl-5-methylcyclohexan-1-ol

D.e. 100%

 $[\alpha]_{\text{D}}^{20} = -41.4$ (*c* 1.14, CHCl_3)

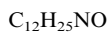
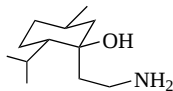
Source of chirality: (–)-menthone

Absolute configuration: (1*R*,2*S*,5*R*)(1*R*,2*S*,5*R*)-1-(2'-Aminoethyl)-2-*iso*-propyl-5-methylcyclohexan-1-ol

D.e. 92%

 $[\alpha]_{\text{D}}^{20} = -12.6$ (*c* 1.01, CHCl_3)

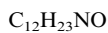
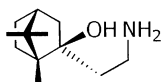
Source of chirality: (–)-menthone

Absolute configuration: (1*R*,2*S*,5*R*)(1*S*,2*S*,5*R*)-1-(2'-Aminoethyl)-2-*iso*-propyl-5-methylcyclohexan-1-ol

D.e. 100%

 $[\alpha]_{\text{D}}^{20} = -17.4$ (*c* 1.09, CHCl_3)

Source of chirality: (–)-menthone

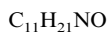
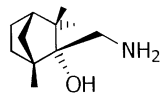
Absolute configuration: (1*S*,2*S*,5*R*)(1*R*,2*S*)-2-Aminoethyl-2-hydroxy-1,7,7-trimethylbicyclo[2.2.1]heptane

D.e. = 100%

 $[\alpha]_{\text{D}}^{20} -11.8$ (*c* 3.00, CHCl_3)

Source of chirality: (+)-camphor

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



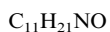
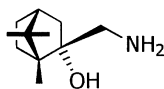
(1*R*,2*R*)-2-Aminomethyl-2-hydroxy-1,3,3-trimethylbicyclo[2.2.1]heptane

D.e. = 100%

$[\alpha]_{\text{D}}^{20} -12.5$ (c 1.24, CHCl_3)

Source of chirality: (–)-fenchone

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



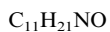
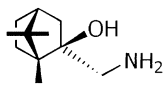
(1*R*,2*S*)-2-Aminomethyl-2-hydroxy-1,7,7-trimethylbicyclo[2.2.1]heptane

D.e. = 100%

$[\alpha]_{\text{D}}^{20} -20.0$ (c 1.00, CHCl_3)

Source of chirality: (+)-camphor

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



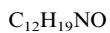
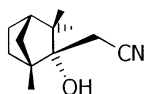
(1*R*,2*R*)-2-Aminomethyl-2-hydroxy-1,7,7-trimethylbicyclo[2.2.1]heptane

D.e. = 100%

$[\alpha]_{\text{D}}^{20} -5.5$ (c 1.00, CHCl_3)

Source of chirality: (+)-camphor

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



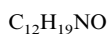
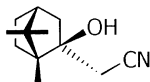
(1*R*,2*R*)-2-Cyanomethyl-2-hydroxy-1,3,3-trimethylbicyclo[2.2.1]heptane

D.e. = 100%

$[\alpha]_{\text{D}}^{20} -17.1$ (c 2.00, CHCl_3)

Source of chirality: (–)-fenchone

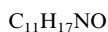
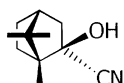
Absolute configuration: (1*R*,2*R*)

(1*R*,2*S*)-2-Cyanomethyl-2-hydroxy-1,7,7-trimethylbicyclo[2.2.1]heptane

D.e. = 100%

 $[\alpha]_{\text{D}}^{20} -3.6$ (*c* 2.00, CHCl₃)

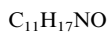
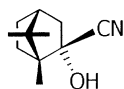
Source of chirality: (+)-camphor

Absolute configuration: (1*R*,2*S*)(1*R*,2*R*)-2-Hydroxy-1,7,7-trimethylbicyclo[2.2.1]hept-yl-carbonitrile

D.e. = 100%

 $[\alpha]_{\text{D}}^{20} +7.4$ (*c* 0.85, CHCl₃)

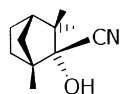
Source of chirality: (+)-camphor

Absolute configuration: (1*R*,2*R*)(1*R*,2*S*)-2-Hydroxy-1,7,7-trimethylbicyclo[2.2.1]hept-yl-carbonitrile

D.e. = 100%

 $[\alpha]_{\text{D}}^{20} -20.8$ (*c* 0.87, CHCl₃)

Source of chirality: (+)-camphor

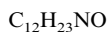
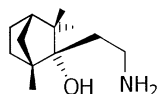
Absolute configuration: (1*R*,2*S*)(1*R*,2*R*)-2-Hydroxy-1,3,3-trimethylbicyclo[2.2.1]hept-yl-carbonitrile

D.e. = 100%

 $[\alpha]_{\text{D}}^{20} +17.1$ (*c* 0.87, CHCl₃)

Source of chirality: (–)-fenchone

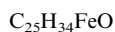
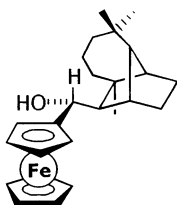
Absolute configuration: (1*R*,2*R*)

(1*R*,2*R*)-2-(2-Aminoethyl)-2-hydroxy-1,3,3-trimethylbicyclo[2.2.1]heptane

D.e. = 100%

[α]_D²⁰ = -30.4 (*c* 1.50, CHCl₃)

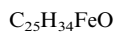
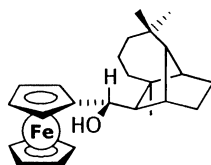
Source of chirality: (-)-fenchone

Absolute configuration: (1*R*,2*R*)(R)-[1-Ferrocenyl]-[(1*S*,6*S*,7*R*,10*S*,11*R*)-1,5,5-trimethyltricyclo[5.4.0.0^{6,10}]undecane-11-yl]methanol

De = 100%

[α]_D²⁰ = -62.1 (*c* 1.00, CHCl₃)

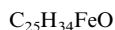
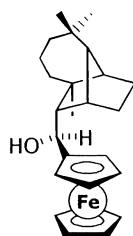
Source of chirality: (+)-longifolene

(S)-[1-Ferrocenyl]-[(1*S*,6*S*,7*R*,10*S*,11*R*)-1,5,5-trimethyltricyclo[5.4.0.0^{6,10}]undecane-11-yl]methanol

De = 100%

[α]_D²⁰ = +106.0 (*c* 1.02, CHCl₃)

Source of chirality: (+)-longifolene

(S)-[1-Ferrocenyl]-[(1*S*,6*S*,7*R*,10*S*,11*S*)-1,5,5-trimethyltricyclo[5.4.0.0^{6,10}]undecane-11-yl]methanol

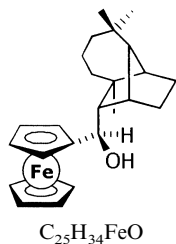
De = 100%

[α]_D²⁰ = +75.1 (*c* 1.00, CHCl₃)

Source of chirality: (+)-longifolene

Vladimir Dimitrov,* Anthony Linden and Manfred Hesse*

Tetrahedron: Asymmetry 12 (2001) 1331



(*R*)-[1-Ferrocenyl]-[(1*S*,6*S*,7*R*,10*S*,11*S*)-1,5,5-trimethyltricyclo[5.4.0.0^{6,10}]undecane-11-yl]methanol

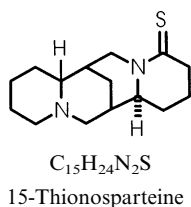
De = 100%

$[\alpha]_D^{20} = -183.3$ (*c* 1.00, $CHCl_3$)

Source of chirality: (+)-longifolene

Renata Kolanoś, Waleria Wysocka,* Marcin Kwit and Jacek Gawroński*

Tetrahedron: Asymmetry 12 (2001) 1337



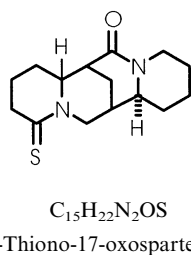
$[\alpha]_D^{20} = +49.0$ (*c* 0.5, C_2H_5OH)

Source of chirality: (–)-sparteine sulfate pentahydrate

Absolute configuration: (6*R*,7*S*,9*S*,11*S*)

Renata Kolanoś, Waleria Wysocka,* Marcin Kwit and Jacek Gawroński*

Tetrahedron: Asymmetry 12 (2001) 1337



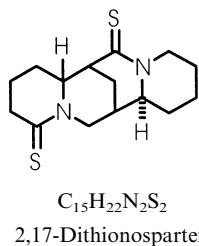
$[\alpha]_D^{20} = +410$ (*c* 1, C_2H_5OH)

Source of chirality: (+)-2-oxosparteine (isolated from *Lupinus angustifolius*)

Absolute configuration: (6*R*,7*R*,9*S*,11*S*)

Renata Kolanoś, Waleria Wysocka,* Marcin Kwit and Jacek Gawroński*

Tetrahedron: Asymmetry 12 (2001) 1337



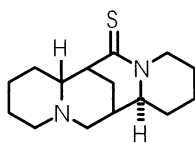
$[\alpha]_D^{20} = +812$ (*c* 0.5, CH_2Cl_2)

Source of chirality: (+)-2-oxosparteine (isolated from *Lupinus angustifolius*)

Absolute configuration: (6*R*,7*R*,9*S*,11*S*)

Renata Kolanoś, Waleria Wysocka,* Marcin Kwit and Jacek Gawroński*

Tetrahedron: Asymmetry 12 (2001) 1337



$C_{15}H_{24}N_2S$
17-Thionosparteine

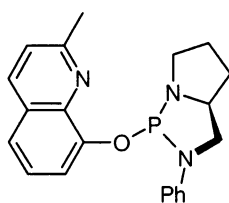
$[\alpha]_D^{20} = +85.8$ (c 0.5, C_2H_5OH)

Source of chirality: (–)-sparteine sulfate pentahydrate

Absolute configuration: (6*R*,7*R*,9*S*,11*S*)

Guillaume Delapierre, Jean Michel Brunel, Thierry Constantieux and Gérard Buono*

Tetrahedron: Asymmetry 12 (2001) 1345



$C_{21}H_{22}N_3OP$
(2*R*,5*S*)-3-Phenyl-2-(2-methyl-8-quinolinoxy)-1,3-diaza-2-phosphabicyclo[3.3.0]octane

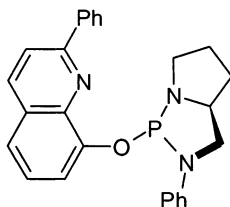
E.e. = 100%

D.e. >96% (by ^{31}P NMR spectroscopy)

$[\alpha]_D = -388$ (c 1.15, CH_2Cl_2)

Guillaume Delapierre, Jean Michel Brunel, Thierry Constantieux and Gérard Buono*

Tetrahedron: Asymmetry 12 (2001) 1345



$C_{26}H_{24}N_3OP$
(2*R*,5*S*)-3-Phenyl-2-(2-phenyl-8-quinolinoxy)-1,3-diaza-2-phosphabicyclo[3.3.0]octane

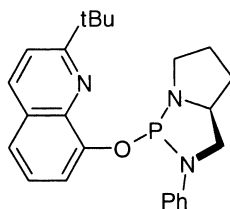
E.e. = 100%

D.e. >96% (by ^{31}P NMR spectroscopy)

$[\alpha]_D = -466$ (c 1.05, CH_2Cl_2)

Guillaume Delapierre, Jean Michel Brunel, Thierry Constantieux and Gérard Buono*

Tetrahedron: Asymmetry 12 (2001) 1345



$C_{24}H_{28}N_3OP$
(2*R*,5*S*)-3-Phenyl-2-(2-*tert*-butyl-8-quinolinoxy)-1,3-diaza-2-phosphabicyclo[3.3.0]octane

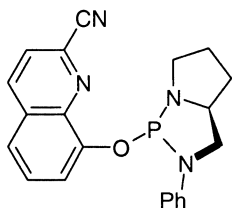
E.e. = 100%

D.e. >96% (by ^{31}P NMR spectroscopy)

$[\alpha]_D = -395$ (c 1.00, CH_2Cl_2)

Guillaume Delapierre, Jean Michel Brunel, Thierry Constantieux and Gérard Buono*

Tetrahedron: Asymmetry 12 (2001) 1345



$C_{21}H_{19}N_4OP$

(2*R*,5*S*)-3-Phenyl-2-(2-cyano-8-quinolinoxy)-1,3-diaza-2-phospha-bicyclo[3.3.0]octane

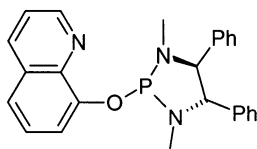
E.e. = 100%

D.e. >96% (by ^{31}P NMR spectroscopy)

$[\alpha]_D = -397$ (*c* 1.01, CH_2Cl_2)

Guillaume Delapierre, Jean Michel Brunel, Thierry Constantieux and Gérard Buono*

Tetrahedron: Asymmetry 12 (2001) 1345



$C_{25}H_{24}N_3OP$

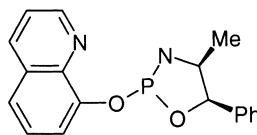
(3*R*,4*R*)-3,4-Diphenyl-2,5-dimethyl-1-(8-quinolinoxy)-2,5-diaza-1-phosphacyclopentane

E.e. = 100%

$[\alpha]_D = +17.2$ (*c* 1.02, CH_2Cl_2)

Guillaume Delapierre, Jean Michel Brunel, Thierry Constantieux and Gérard Buono*

Tetrahedron: Asymmetry 12 (2001) 1345



$C_{19}H_{19}N_2O_2P$

(1*R*,3*S*,4*R*)-2,3-Dimethyl-4-phenyl-1-(8-quinolinoxy)-2-aza-5-oxa-1-phosphacyclopentane

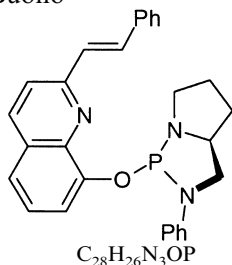
E.e. = 100%

D.e. >96% (by ^{31}P NMR spectroscopy)

$[\alpha]_D = +30.5$ (*c* 0.38, CH_2Cl_2)

Guillaume Delapierre, Jean Michel Brunel, Thierry Constantieux and Gérard Buono*

Tetrahedron: Asymmetry 12 (2001) 1345



$C_{28}H_{26}N_3OP$

(2*R*,5*S*)-3-Phenyl-2-((*E*)-2-(2-phenylethenyl)-8-quinolinoxy)-1,3-diaza-2-phospha-bicyclo[3.3.0]octane

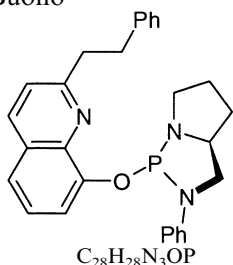
E.e. = 100%

D.e. = 84% (by ^{31}P NMR spectroscopy)

$[\alpha]_D = -372$ (*c* 0.97, CH_2Cl_2)

Guillaume Delapierre, Jean Michel Brunel, Thierry Constantieux and Gérard Buono*

Tetrahedron: Asymmetry 12 (2001) 1345



(2*R*,5*S*)-3-Phenyl-2-((*E*)-2-(2-phenylethyl)-8-quinolinoxy)-1,3-diaza-2-phosphabicyclo[3.3.0]octane

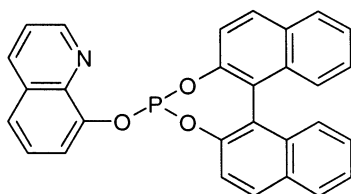
E.e. = 100%

D.e. = 94% (by ^{31}P NMR spectroscopy)

$[\alpha]_D = -341$ (*c* 1.07, CH_2Cl_2)

Guillaume Delapierre, Jean Michel Brunel, Thierry Constantieux and Gérard Buono*

Tetrahedron: Asymmetry 12 (2001) 1345



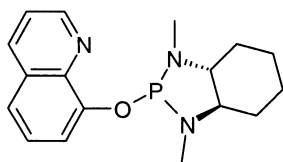
(*R*)-4-(8-Quinolinoxy)-3,5-dioxa-4-phosphacyclohepta-[2,1-*a*;3,4-*a'*]binaphthalene

E.e. = 100%

$[\alpha]_D = -155$ (*c* 0.23, THF)

Guillaume Delapierre, Jean Michel Brunel, Thierry Constantieux and Gérard Buono*

Tetrahedron: Asymmetry 12 (2001) 1345



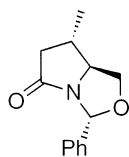
(1*R*,5*R*)-2,4-Dimethyl-3-(8-quinolinoxy)-2,4-diaza-3-phosphabicyclo[4.3.0]nonane

E.e. = 100%

$[\alpha]_D = -9.8$ (*c* 0.60, CH_2Cl_2)

Naoki Okamoto, Osamu Hara, Kazuishi Makino and Yasumasa Hamada*

Tetrahedron: Asymmetry 12 (2001) 1353



(2*R*,5*S*,6*S*)-6-Methyl-2-phenyl-1-aza-3-oxabicyclo[3.3.0]octan-8-one

E.e. = 100%

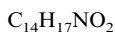
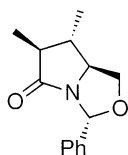
$[\alpha]_D^{22} = +227.9$ (*c* 0.64, $CHCl_3$)

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

Absolute configuration: (2*R*,5*S*,6*S*)

Naoki Okamoto, Osamu Hara, Kazuishi Makino and Yasumasa Hamada*

Tetrahedron: Asymmetry 12 (2001) 1353



(2*R*,5*S*,6*S*,7*S*)-6,7-Dimethyl-2-phenyl-1-aza-3-oxabicyclo[3.3.0]octan-8-one

E.e. = 100%

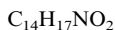
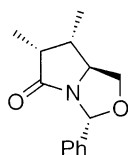
$[\alpha]_D^{22} = +151.8$ (*c* 0.75, $CHCl_3$)

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

Absolute configuration: (2*R*,5*S*,6*S*,7*S*)

Naoki Okamoto, Osamu Hara, Kazuishi Makino and Yasumasa Hamada*

Tetrahedron: Asymmetry 12 (2001) 1353



(2*R*,5*S*,6*S*,7*R*)-6,7-Dimethyl-2-phenyl-1-aza-3-oxabicyclo[3.3.0]octan-8-one

E.e. = 100%

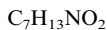
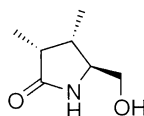
$[\alpha]_D^{22} = +154.4$ (*c* 0.42, $CHCl_3$)

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

Absolute configuration: (2*R*,5*S*,6*S*,7*R*)

Naoki Okamoto, Osamu Hara, Kazuishi Makino and Yasumasa Hamada*

Tetrahedron: Asymmetry 12 (2001) 1353



(3*R*,4*S*,5*S*)-3,4-Dimethyl-5-hydroxymethylpyrrolidin-2-one

E.e. = 100%

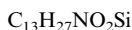
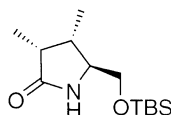
$[\alpha]_D^{24} = +88.0$ (*c* 0.48, $CHCl_3$)

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

Absolute configuration: (3*R*,4*S*,5*S*)

Naoki Okamoto, Osamu Hara, Kazuishi Makino and Yasumasa Hamada*

Tetrahedron: Asymmetry 12 (2001) 1353



(3*R*,4*S*,5*S*)-3,4-Dimethyl-5-*t*-butyldimethylsilyloxymethylpyrrolidin-2-one

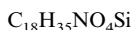
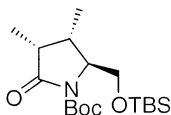
$[\alpha]_D^{27} = +54.3$ (*c* 0.64, $CHCl_3$)

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

Absolute configuration: (3*R*,4*S*,5*S*)

Naoki Okamoto, Osamu Hara, Kazuishi Makino and Yasumasa Hamada*

Tetrahedron: Asymmetry 12 (2001) 1353



(3*R*,4*S*,5*S*)-*N*-*t*-Butoxycarbonyl-3,4-dimethyl-5-*t*-butyldimethylsiloxymethylpyrrolidin-2-one

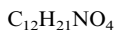
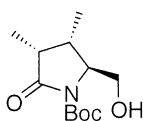
$[\alpha]_D^{27} = -46.7$ (*c* 1.12, $CHCl_3$)

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

Absolute configuration: (3*R*,4*S*,5*S*)

Naoki Okamoto, Osamu Hara, Kazuishi Makino and Yasumasa Hamada*

Tetrahedron: Asymmetry 12 (2001) 1353



(3*R*,4*S*,5*S*)-*N*-*t*-Butoxycarbonyl-3,4-dimethyl-5-hydroxymethylpyrrolidin-2-one

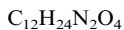
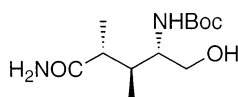
$[\alpha]_D^{24} = -47.8$ (*c* 1.37, $CHCl_3$)

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

Absolute configuration: (3*R*,4*S*,5*S*)

Naoki Okamoto, Osamu Hara, Kazuishi Makino and Yasumasa Hamada*

Tetrahedron: Asymmetry 12 (2001) 1353



(2*R*,3*S*,4*S*)-4-*t*-Butoxycarbonylamino-2,3-dimethyl-5-hydroxypentamide

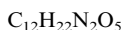
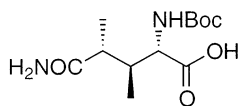
$[\alpha]_D^{27} = -27.7$ (*c* 0.55, $CHCl_3$)

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

Absolute configuration: (2*R*,3*S*,4*S*)

Naoki Okamoto, Osamu Hara, Kazuishi Makino and Yasumasa Hamada*

Tetrahedron: Asymmetry 12 (2001) 1353



(3*S*,4*R*)-*N*-*t*-Butoxycarbonyl-3,4-dimethyl-(*S*)-glutamine

E.e. = 100%

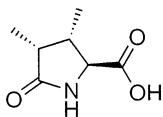
$[\alpha]_D^{21} = +15.0$ (*c* 0.56, CH_3OH)

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

Absolute configuration: (2*S*,3*S*,4*R*)

Naoki Okamoto, Osamu Hara, Kazuishi Makino and Yasumasa Hamada*

Tetrahedron: Asymmetry 12 (2001) 1353



(3*S*,4*R*)-3,4-Dimethyl-(*S*)-pyroglutamic acid

E.e. = 100%

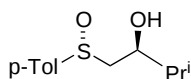
$[\alpha]_{\text{D}}^{26} = +43.4$ (*c* 0.83, CH₃OH)

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

Absolute configuration: (2*S*,3*S*,4*R*)

Gregorio Asensio,* Jesús Gil, Pedro Alemán and Mercedes Medio-Simón

Tetrahedron: Asymmetry 12 (2001) 1359



(2*S*,*R*_s)-(+)-3-Methyl-1-(4-methylphenylsulfinyl)-2-butanol

D.e. >95%

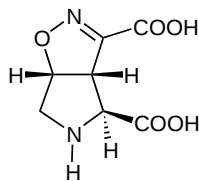
$[\alpha]_{\text{D}}^{22} = +304.0$ (*c* 2, CHCl₃)

Source of chirality: (1*R*,2*S*,5*R*)-(-)-menthol

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

Paola Conti,* Gabriella Roda and Federico F. Barberis Negra

Tetrahedron: Asymmetry 12 (2001) 1363



(-)-CIP-A: (3*aS*,4*S*,6*aR*)-3*a*,5,6,6*a*-Tetrahydro-4*H*-pyrrolo[3,4-*d*]isoxazole-3,4-dicarboxylic acid

E.e. >99.9% (by chiral HPLC analysis)

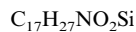
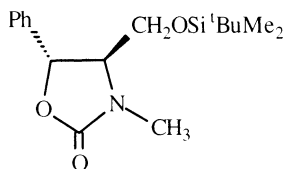
$[\alpha]_{\text{D}}^{20} = -53.9$ (*c* 0.110, H₂O)

Source of chirality: cycloaddition to a chiral dipolarophile

Absolute configuration: (3*aS*,4*S*,6*aR*)

M^a Luisa Testa, Chakib Hajji, Elena Zaballos-García, Ana Belén García-Segovia and José Sepúlveda-Arques*

Tetrahedron: Asymmetry 12 (2001) 1369



(4*R*,5*R*)-4-(*tert*-Butyldimethylsilyloxymethyl)-3-methyl-5-phenyl-1,3-oxazolan-2-one

E.e. = 100%

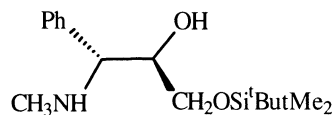
$[\alpha]_{\text{D}}^{20} = +10.1$ (*c* 0.91, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (4*R*,5*R*)

M^a Luisa Testa, Chakib Hajji, Elena Zaballos-García,
Ana Belén García-Segovia and José Sepúlveda-Arques*

Tetrahedron: Asymmetry 12 (2001) 1369



(1*R*,2*R*)-3-(*tert*-Butyldimethylsilyloxy)-1-methylamino-1-phenylpropan-2-ol

E.e. = 100%

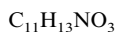
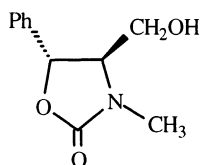
[α]_D²⁰ = -47.4 (*c* 3.80, CHCl₃)

Source of chirality: asymmetric synthesis

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

M^a Luisa Testa, Chakib Hajji, Elena Zaballos-García,
Ana Belén García-Segovia and José Sepúlveda-Arques*

Tetrahedron: Asymmetry 12 (2001) 1369



(4*R*,5*R*)-4-Hydroxymethyl-3-methyl-5-phenyl-1,3-oxazolan-2-one

E.e. = 100%

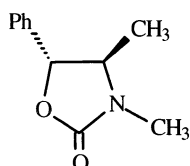
[α]_D²⁰ = +12.2 (*c* 1.96, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (4*R*,5*R*)

M^a Luisa Testa, Chakib Hajji, Elena Zaballos-García,
Ana Belén García-Segovia and José Sepúlveda-Arques*

Tetrahedron: Asymmetry 12 (2001) 1369



(4*R*,5*R*)-3,4-Dimethyl-5-phenyl-1,3-oxazolan-2-one

E.e. = 100%

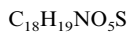
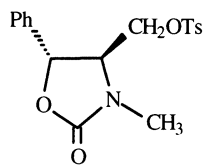
[α]_D²⁰ = -29.4 (*c* 3.46, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (4*R*,5*R*)

M^a Luisa Testa, Chakib Hajji, Elena Zaballos-García,
Ana Belén García-Segovia and José Sepúlveda-Arques*

Tetrahedron: Asymmetry 12 (2001) 1369



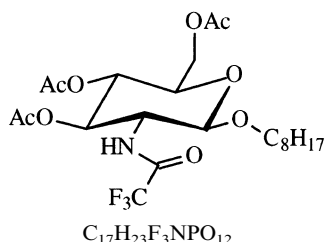
(4*R*,5*R*)-4-(4-Methylphenylsulfonyloxymethyl)-3-methyl-5-phenyl-1,3-oxazolan-2-one

E.e. = 100%

[α]_D²⁰ = +20.6 (*c* 0.64, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (4*R*,5*R*)

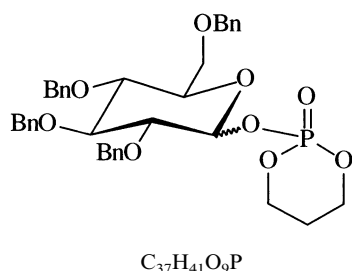


(1*S*,2*R*,3*S*,4*S*,5*R*)-3',4',6'-Tri-*O*-acetyl-2'-desoxy-2-trifluoroacetamido- β -D-glucopyranosyl-1'-*O*-propane-1,3-diyl phosphate

$[\alpha]_D = -30.6$ (*c* 0.4, $CHCl_3$)

Source of chirality: D-glucosamine

Absolute configuration: (1*S*,2*R*,3*S*,4*S*,5*R*)

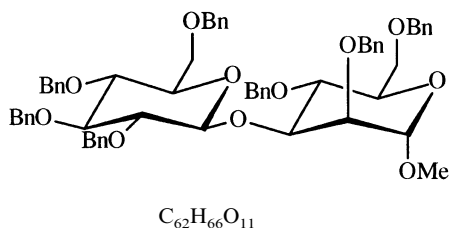


2,3,4,6-Tetra-*O*-benzyl- α -D-glucopyranosyl-1,3-diyl phosphate

$[\alpha]_D = +65.7$ (*c* 1.4, $CHCl_3$)

Source of chirality: D-glucose

Absolute configuration: (1*R*,2*R*,3*S*,4*S*,5*R*)



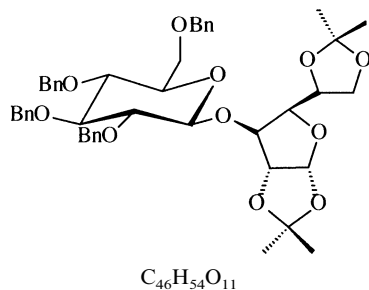
(1*S*,2*S*,3*S*,4*S*,5*R*,1'*S*,2'*R*,3'*S*,4'*S*,5'*R*)-Methyl 2,4,6-tri-*O*-benzyl-3-*O*-(2',3',4',6'-tetra-*O*-benzyl- β -D-glucopyranosyl)-(1-3)- α -D-mannopyranose

$[\alpha]_D = +21.9$ (*c* 0.6, $CHCl_3$)

Source of chirality: D-glucose, D-mannose

Absolute configuration:

(1*S*,2*S*,3*S*,4*S*,5*R*,1'*S*,2'*R*,3'*S*,4'*S*,5'*R*)



(1*S*,2*R*,3*S*,4*R*,5*R*,1'*S*,2'*R*,3'*S*,4'*S*,5'*R*)-3-*O*-(2',3',4',6'-Tetra-*O*-benzyl- β -D-glucopyranosyl)-(1-3)-1,2:5,6-di-isopropylidene- α -D-glucofuranose

$[\alpha]_D = +20.0$ (*c* 0.8, $CHCl_3$)

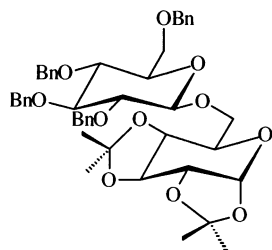
Source of chirality: D-glucose

Absolute configuration:

(1*S*,2*R*,3*S*,4*R*,5*R*,1'*S*,2'*R*,3'*S*,4'*S*,5'*R*)

Hariprasad Vankayalapati, Gurdial Singh* and Isabelle Tranoy

Tetrahedron: Asymmetry 12 (2001) 1373



$C_{46}H_{54}O_{11}$

(1*R*,2*R*,3*S*,4*S*,5*R*,1'*R*,2'*R*,3'*S*,4'*S*,5'*R*)-6-*O*-(2',3',4',6'-Tetra-*O*-benzyl- β -D-glucopyranosyl)-(1-6)-1,2:3,4-di-isopropylidene- α -D-galactopyranose

$[\alpha]_D = -8.6$ (*c* 0.7, $CHCl_3$)

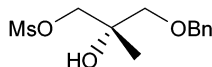
Source of chirality: D-glucose

Absolute configuration:

(1*R*,2*R*,3*S*,4*S*,5*R*,1'*R*,2'*R*,3'*S*,4'*S*,5'*R*)

Alberto Avenzoza,* Carlos Cativiela, Jesús M. Peregrina,*
David Sucunza and María M. Zurbano

Tetrahedron: Asymmetry 12 (2001) 1383



$C_{12}H_{18}O_5S$

(*S*)-Methanesulfonic acid 3-benzyloxy-2-hydroxy-2-methylpropyl ester

E.e. >96%

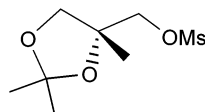
$[\alpha]_D^{25} = +2.1$ (*c* 1.16, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (2*S*)

Alberto Avenzoza,* Carlos Cativiela, Jesús M. Peregrina,*
David Sucunza and María M. Zurbano

Tetrahedron: Asymmetry 12 (2001) 1383



$C_8H_{16}O_5S$

(*R*)-Methanesulfonic acid 2,2,4-trimethyl-1,3-dioxolane-4-ylmethyl ester

E.e. >96%

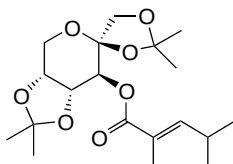
$[\alpha]_D^{25} = -1.1$ (*c* 1.19, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (4*R*)

Frédéric Bargiggia and Olivier Piva*

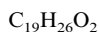
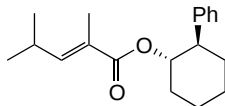
Tetrahedron: Asymmetry 12 (2001) 1389



$C_{19}H_{30}O_7$

(1,2;4,5-Di-*O*-isopropylidene- α -D-fructopyranose-3-*O*-yl) 2',4'-dimethyl-(2'*E*)-pentenoate

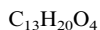
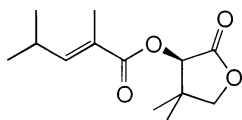
$[\alpha]_D^{21} = -115$ (*c* 1.0, CH_2Cl_2)



(1*R*,2*S*)-*trans*-2-Phenyl-1-cyclohexyl 2',4'-dimethyl-(2'*E*)-pentenoate

$[\alpha]_{\text{D}}^{21} = -22$ (*c* 1.0, CH₂Cl₂)

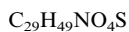
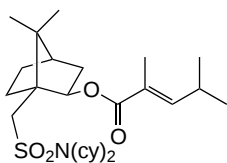
Absolute configuration: (1*R*,2*S*,2'*E*)



(3*R*)-(-)-(4,4-Dimethyl-2-oxotetrahydrofuran-3-yl) 2',4'-dimethyl-(2'*E*)-pentenoate

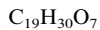
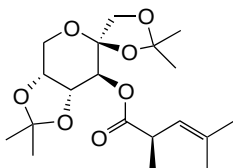
$[\alpha]_{\text{D}}^{21} = +6$ (*c* 1.0, CH₂Cl₂)

Absolute configuration: (3*R*,2'*E*)



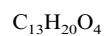
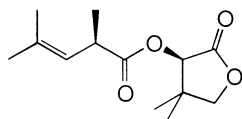
(-)-1-[(Dicyclohexylsulfonamoyl)-methyl]-7,7-dimethyl-bicyclo[2.2.1]hept-2-yl 2',4'-dimethyl-(2'*E*)-pentenoate

$[\alpha]_{\text{D}}^{21} = -25$ (*c* 1.0, CH₂Cl₂)



(1,2;4,5-Di-*O*-isopropyliden- α -D-fructopyranose-3-*O*-yl) (2*R*)-2',4'-dimethyl-(3'*E*)-pentenoate

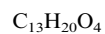
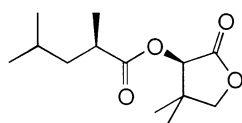
$[\alpha]_{\text{D}}^{21} = -17$ (*c* 1.0, CH₂Cl₂)



(3*R*)-(-)-(4,4-Dimethyl-2-oxotetrahydrofuran-3-yl) (2'*R*)-2',4'-dimethyl-(3'*E*)-pentenoate

$[\alpha]_{\text{D}}^{21} = -74$ (*c* 1.0, CH₂Cl₂)

Absolute configuration: (3*R*,2'*R*,3'*E*)



(3*R*)-(-)-(4,4-Dimethyl-2-oxotetrahydrofuran-3-yl) (2'*R*)-2',4'-dimethylpentanoate

D.e. = 89%

$[\alpha]_{\text{D}}^{21} = -11$ (*c* 1.0, CH₂Cl₂)

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