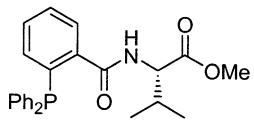
Bernhard Breit* and Andy Ch. Laungani

Tetrahedron: Asymmetry *14 (2003) 3823*



$C_{25}H_{26}NO_3P$

ortho-(Diphenylphosphanyl)-benzamido-L-valine methylester

Ee = 100%

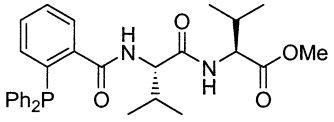
$[\alpha]_D^{26} = +30.0$ (*c* 1.015, $CHCl_3$)

Source of chirality: L-valine

Absolute configuration: (*S*)

Bernhard Breit* and Andy Ch. Laungani

Tetrahedron: Asymmetry *14 (2003) 3823*



$C_{30}H_{35}N_2O_4P$

ortho-(Diphenylphosphanyl)-benzamido-L-valyl-L-valine methylester

Ee = 100%

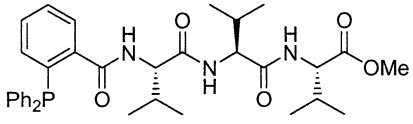
$[\alpha]_D^{26} = -22.6$ (*c* 0.975, $CHCl_3$)

Source of chirality: L-valine

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

Bernhard Breit* and Andy Ch. Laungani

Tetrahedron: Asymmetry *14 (2003) 3823*



$C_{35}H_{44}N_3O_5P$

ortho-(Diphenylphosphanyl)-benzamido-L-valyl-L-valyl-L-valine methylester

Ee = 100%

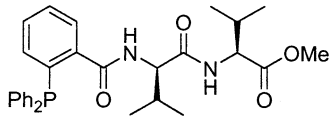
$[\alpha]_D^{26} = -38.4$ (*c* 0.920, $CHCl_3$)

Source of chirality: L-valine

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

Bernhard Breit* and Andy Ch. Laungani

Tetrahedron: Asymmetry *14 (2003) 3823*



$C_{30}H_{35}N_2O_4P$

ortho-(Diphenylphosphanyl)-benzamido-D-valyl-L-valine methylester

Ee = 100%

$[\alpha]_D^{26} = +32.1$ (*c* 0.945, $CHCl_3$)

Source of chirality: D- and L-valine

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

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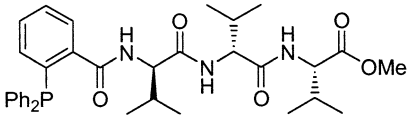
Tetrahedron: Asymmetry *14 (2003) 3823*

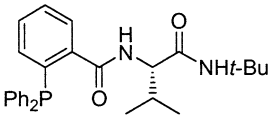


Ee = 100%
$[\alpha]_D^{26} = -84.0$ (*c* 0.605, $CHCl_3$)
Source of chirality: D- and L-valine
Absolute configuration: (*R*,*R*,*S*)

$C_{35}H_{44}N_3O_5P$
ortho-(Diphenylphosphanyl)-benzamido-D-valyl-D-valyl-L-valine methylester

Bernhard Breit* and Andy Ch. Laungani

Tetrahedron: Asymmetry *14 (2003) 3823*

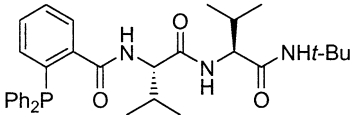


Ee = 100%
$[\alpha]_D^{26} = -15.4$ (*c* 0.975, $CHCl_3$)
Source of chirality: L-valine
Absolute configuration: (*S*)

$C_{28}H_{33}N_2O_2P$
ortho-(Diphenylphosphanyl)-benzamido-L-valine-*tert*-butylamide

Bernhard Breit* and Andy Ch. Laungani

Tetrahedron: Asymmetry *14 (2003) 3823*

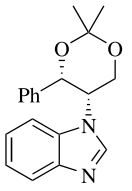


Ee = 100%
$[\alpha]_D^{26} = -49.0$ (*c* 0.720, $CHCl_3$)
Source of chirality: L-valine
Absolute configuration: (*S*,*S*)

$C_{33}H_{42}N_3O_3P$
ortho-(Diphenylphosphanyl)-benzamido-L-valyl-L-valine-*tert*-butylamide

Simonetta Orlandi, Marinella Caporale, Maurizio Benaglia* and Rita Annunziata

Tetrahedron: Asymmetry *14 (2003) 3827*

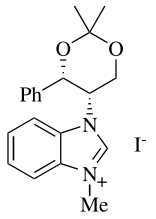


Ee = 100%
$[\alpha]_D^{23} = -18.4$ (*c* 0.43, CH_2Cl_2)
Absolute configuration: 4*S*,5*S*

$C_{19}H_{20}N_2O_2$
1-[(4*S*,5*S*)-2,2-Dimethyl-4-phenyl-1,3-dioxan-5-yl]-benzoimidazole

Simonetta Orlandi, Marinella Caporale, Maurizio Benaglia* and Rita Annunziata

Tetrahedron: Asymmetry *14 (2003) 3827*



$C_{20}H_{23}IN_2O_2$

1-Methyl-3-[(4*S*,5*S*)-2,2-dimethyl-4-phenyl-1,3-dioxan-5-yl]-benzoimidazolium iodide

Ee = 100%

$[\alpha]_D^{23} = +40.5$ (*c* 0.43, CH_2Cl_2)

Absolute configuration: 4*S*,5*S*

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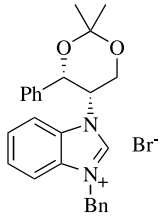
Tetrahedron: Asymmetry *14 (2003) 3827*



$C_{26}H_{27}BrN_2O_2$

1-Benzyl-3-[(4*S*,5*S*)-2,2-dimethyl-4-phenyl-1,3-dioxan-5-yl]-benzoimidazolium bromide

Ee = 100%

$[\alpha]_D^{23} = +35.7$ (*c* 0.49, CH_2Cl_2)

Absolute configuration: 4*S*,5*S*

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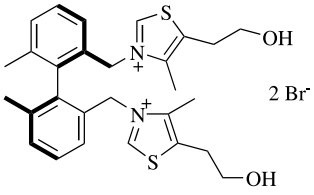
Tetrahedron: Asymmetry *14 (2003) 3827*



$C_{28}H_{34}Br_2N_2O_2S_2$

(*R*)-6,6′-Dimethylphenyl-2,2′-[3-(4-methyl-5-(2-hydroxyethyl)-thiazolium)]-dimethyl dibromide

Ee = 100%

$[\alpha]_D^{23} = -29.3$ (*c* 0.65, MeOH)

Absolute configuration: *R*

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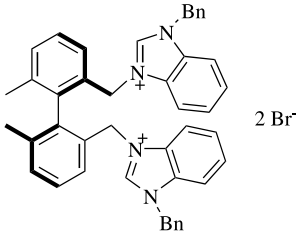
Tetrahedron: Asymmetry *14 (2003) 3827*



$C_{44}H_{40}Br_2N_4$

(*R*)-6,6′-Dimethylphenyl-2,2′-[1-(3-benzyl)-benzimidazolium)]-dimethyl dibromide

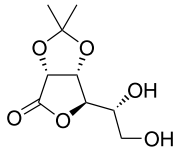
Ee = 100%

$[\alpha]_D^{23} = -31.7$ (*c* 0.15, MeOH)

Absolute configuration: *R*

Darren F. A. Hunter and George W. J. Fleet*

Tetrahedron: Asymmetry *14 (2003) 3831*



$C_9H_{14}O_6$

2,3-*O*-Isopropylidene-D-allono-1,4-lactone

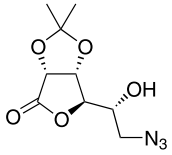
E.e. = 100%

$[\alpha]_D^{25} = -72.7$ (*c* 1.13, Me_2CO)

Source of chirality: D-ribose as starting material

Darren F. A. Hunter and George W. J. Fleet*

Tetrahedron: Asymmetry *14 (2003) 3831*



$C_9H_{13}N_3O_5$

6-Azido-6-deoxy-2,3-*O*-isopropylidene-D-allono-1,4-lactone

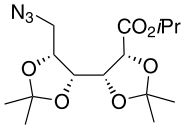
E.e. = 100%

$[\alpha]_D^{25} = -68.8$ (*c* 0.95, $CHCl_3$)

Source of chirality: D-ribose as starting material

Darren F. A. Hunter and George W. J. Fleet*

Tetrahedron: Asymmetry *14 (2003) 3831*



$C_{12}H_{22}N_3O_4$

Isopropyl 6-azido-6-deoxy-2,3:4,5-di-*O*-isopropylidene-D-allonate

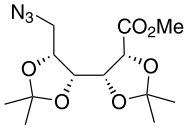
E.e. = 100%

$[\alpha]_D^{25} = +36.9$ (*c* 0.89, $CHCl_3$)

Source of chirality: D-ribose as starting material

Darren F. A. Hunter and George W. J. Fleet*

Tetrahedron: Asymmetry *14 (2003) 3831*



$C_{13}H_{21}N_3O_6$

Methyl 6-azido-6-deoxy-2,3:4,5-di-*O*-isopropylidene-D-allonate

E.e. = 100%

$[\alpha]_D^{25} = +31.9$ (*c* 0.95, $CHCl_3$)

Source of chirality: D-ribose as starting material

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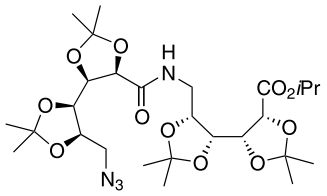
Tetrahedron: Asymmetry *14 (2003) 3831*



E.e. = 100%

$[\alpha]_D^{25} = +19.2$ (*c* 0.6, $CHCl_3$)

Source of chirality: D-ribose as starting material

$C_{27}H_{44}N_4O_{11}$

Isopropyl 6-deoxy-2,3:4,5-di-*O*-isopropylidene-6-*N*-(6-azido-6-deoxy-2,3:4,5-di-*O*-isopropylidene-D-allonyl)-amino-D-allonate (dimer)

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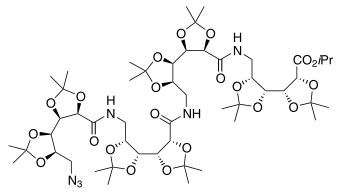
Tetrahedron: Asymmetry *14 (2003) 3831*



E.e. = 100%

$[\alpha]_D^{25} = +25.9$ (*c* 0.8, $CHCl_3$)

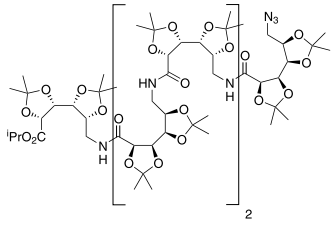
Source of chirality: D-ribose as starting material

$C_{51}H_{82}N_6O_{21}$

Isopropyl 6-deoxy-2,3:4,5-di-*O*-isopropylidene-6-*N*-(6-deoxy-2,3:4,5-di-*O*-isopropylidene-6-*N*-(6-deoxy-2,3:4,5-di-*O*-isopropylidene-6-*N*-(6-azido-6-deoxy-2,3:4,5-di-*O*-isopropylidene-D-allonyl)-amino-D-allonyl)-amino-D-allonyl)-amino-D-allonate (the tetramer)

Darren F. A. Hunter and George W. J. Fleet*

Tetrahedron: Asymmetry *14 (2003) 3831*



E.e. = 100%

$[\alpha]_D^{25} = +34.5$ (*c* 0.65, $CHCl_3$)

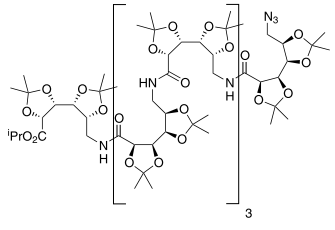
Source of chirality: D-ribose as starting material

$C_{75}H_{120}N_8O_{31}$

Isopropyl 6-deoxy-2,3:4,5-di-*O*-isopropylidene-6-*N*-(6-deoxy-2,3:4,5-di-*O*-isopropylidene-6-*N*-(6-deoxy-2,3:4,5-di-*O*-isopropylidene-6-*N*-(6-deoxy-2,3:4,5-di-*O*-isopropylidene-6-*N*-(6-azido-6-deoxy-2,3:4,5-di-*O*-isopropylidene-D-allonyl)-amino-D-allonyl)-amino-D-allonyl)-amino-D-allonyl)-amino-D-allonyl)-amino-D-allonate (the hexamer)

Darren F. A. Hunter and George W. J. Fleet*

Tetrahedron: Asymmetry *14 (2003) 3831*



E.e. = 100%

$[\alpha]_D^{23} = +33.0$ (*c* 0.37, $CHCl_3$)

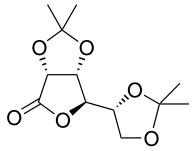
Source of chirality: D-ribose as starting material

$C_{99}H_{158}N_{10}O_{41}$

Isopropyl 6-deoxy-2,3:4,5-di-*O*-isopropylidene-6-*N*-(6-deoxy-2,3:4,5-di-*O*-isopropylidene-6-*N*-(6-deoxy-2,3:4,5-di-*O*-isopropylidene-6-*N*-(6-deoxy-2,3:4,5-di-*O*-isopropylidene-6-*N*-(6-deoxy-2,3:4,5-di-*O*-isopropylidene-6-*N*-(6-deoxy-2,3:4,5-di-*O*-isopropylidene-6-*N*-(6-azido-6-deoxy-2,3:4,5-di-*O*-isopropylidene-D-allonyl)-amino-D-allonyl)-amino-D-allonyl)-amino-D-allonyl)-amino-D-allonyl)-amino-D-allonyl)-amino-D-allonyl)-amino-D-allonate (the octamer)

Darren F. A. Hunter and George W. J. Fleet*

Tetrahedron: Asymmetry *14 (2003) 3831*



$C_{12}H_{18}O_6$

2,3:5,6-Di-*O*-isopropylidene-D-allono-1,4-lactone

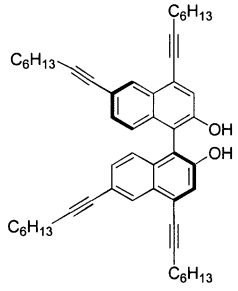
E.e. = 100%

$[\alpha]_D^{25} = -68.2$ (*c* 1.0, $CHCl_3$)

Source of chirality: D-ribose as starting material

David M. Hodgson,* Deborah A. Selden and Alexander G. Dossetter

Tetrahedron: Asymmetry *14 (2003) 3841*



$C_{52}H_{62}O_2$

(*S*)-4,4′,6,6′-Tetraoctynyl-1,1′-bi-2-naphthol

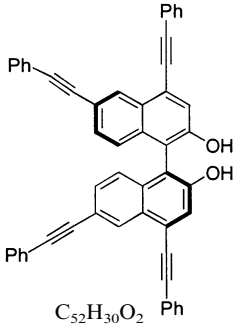
$[\alpha]_D = +78.9$ (*c* 1, $CHCl_3$)

Source of chirality: (*S*)-BINOL

Absolute configuration: *S*

David M. Hodgson,* Deborah A. Selden and Alexander G. Dossetter

Tetrahedron: Asymmetry *14 (2003) 3841*



$C_{52}H_{30}O_2$

(*S*)-4,4′,6,6′-Tetra(2-phenylethynyl)-1,1′-bi-2-naphthol

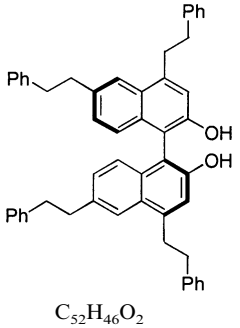
$[\alpha]_D = +137.5$ (*c* 1, $CHCl_3$)

Source of chirality: (*S*)-BINOL

Absolute configuration: *S*

David M. Hodgson,* Deborah A. Selden and Alexander G. Dossetter

Tetrahedron: Asymmetry *14 (2003) 3841*



$C_{52}H_{46}O_2$

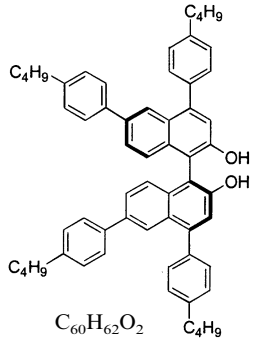
(*S*)-4,4′,6,6′-Tetra(2-phenylethyl)-1,1′-bi-2-naphthol

$[\alpha]_D = +15.0$ (*c* 1, $CHCl_3$)

Source of chirality: (*S*)-BINOL

Absolute configuration: *S*

David M. Hodgson,* Deborah A. Selden and Alexander G. Dossetter | *Tetrahedron:* Asymmetry *14 (2003) 3841*



$C_{60}H_{62}O_2$

(*S*)-4,4′,6,6′-Tetra(4-*n*-butylphenyl)-1,1′-bi-2-naphthol

$[\alpha]_D = +68.9$ (*c* 1, $CHCl_3$)
Source of chirality: (*S*)-BINOL
Absolute configuration: *S*

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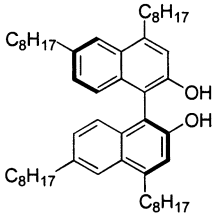
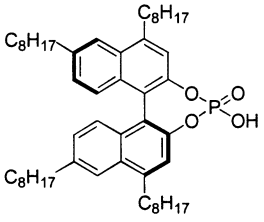


$C_{52}H_{78}O_2$

(*S*)-4,4′,6,6′-Tetraoctyl-1,1′-bi-2-naphthol

$[\alpha]_D = +16.3$ (*c* 1, $CHCl_3$)
Source of chirality: (*S*)-BINOL
Absolute configuration: *S*

David M. Hodgson,* Deborah A. Selden and Alexander G. Dossetter | *Tetrahedron:* Asymmetry *14 (2003) 3841*



$C_{52}H_{77}O_4P$

(*S*)-4,4′,6,6′-Tetraoctyl-1,1′-bi-2-naphthol phosphate

$[\alpha]_D = +119$ (*c* 1, $CHCl_3$)
Source of chirality: (*S*)-BINOL
Absolute configuration: *S*

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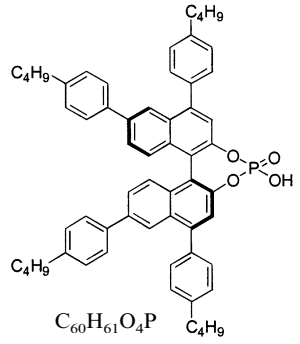


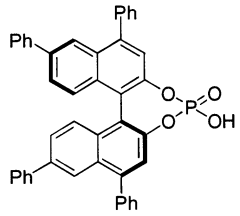
$C_{60}H_{61}O_4P$

(*S*)-4,4′,6,6′-Tetra(4-*n*-butylphenyl)-1,1′-bi-2-naphthol phosphate

$[\alpha]_D = +82.4$ (*c* 1, $CHCl_3$)
Source of chirality: (*S*)-BINOL
Absolute configuration: *S*

David M. Hodgson,* Deborah A. Selden and Alexander G. Dossetter

Tetrahedron: Asymmetry *14 (2003) 3841*

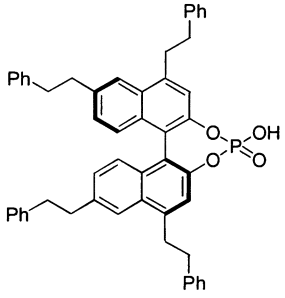


$[\alpha]_D = +76.5$ (c 0.33, $CHCl_3$)
Source of chirality: (*S*)-BINOL
Absolute configuration: *S*

$C_{44}H_{29}O_4P$
(*S*)-4,4′,6,6′-Tetraphenyl-1,1′-bi-2-naphthol phosphate

David M. Hodgson,* Deborah A. Selden and Alexander G. Dossetter

Tetrahedron: Asymmetry *14 (2003) 3841*

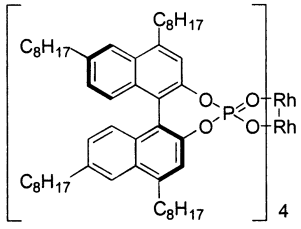


$[\alpha]_D = +104$ (c 1, $CHCl_3$)
Source of chirality: (*S*)-BINOL
Absolute configuration: *S*

$C_{52}H_{45}O_4P$
(*S*)-4,4′,6,6′-Tetra(2-phenylethyl)-1,1′-bi-2-naphthol phosphate

David M. Hodgson,* Deborah A. Selden and Alexander G. Dossetter

Tetrahedron: Asymmetry *14 (2003) 3841*

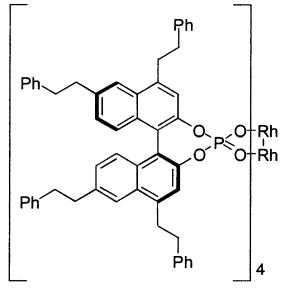


$[\alpha]_D = -6.9$ (c 1, $CHCl_3$)
Source of chirality: (*S*)-BINOL
Absolute configuration: *S*

$C_{208}H_{304}O_{16}P_4Rh_2$
Tetrakis[(*S*)-4,4′,6,6′-tetraoctyl-1,1′-bi-2-naphthol phosphate]dirhodium(II)

David M. Hodgson,* Deborah A. Selden and Alexander G. Dossetter

Tetrahedron: Asymmetry *14 (2003) 3841*

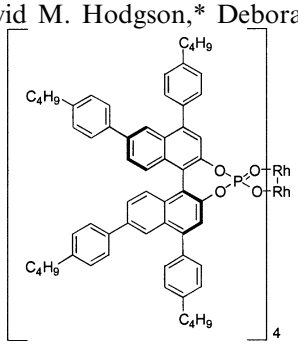


$[\alpha]_D = -14.8$ (c 1, $CHCl_3$)
Source of chirality: (*S*)-BINOL
Absolute configuration: *S*

$C_{208}H_{176}O_{16}P_4Rh_2$
Tetrakis[(*S*)-4,4′,6,6′-tetra(2-phenylethyl)-1,1′-bi-2-naphthol phosphate]dirhodium(II)

David M. Hodgson,* Deborah A. Selden and Alexander G. Dossetter

Tetrahedron: Asymmetry *14 (2003) 3841*



$C_{240}H_{240}O_{16}P_4Rh_2$

Tetrakis[(*S*)-4,4′,6,6′-tetra(4-*n*-butylphenyl)-1,1′-bi-2-naphtholphosphate]dirhodium(II)

$[\alpha]_D = +219$ (*c* 1, $CHCl_3$)

Source of chirality: (*S*)-BINOL

Absolute configuration: *S*

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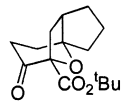

$C_{15}H_{22}O_4$

(1*S*,5*R*,7*S*)-7-Carbo-*tert*-butoxy-11-oxa-tricyclo[5.3.1.0]undecan-8-one

Ee = 86%

$[\alpha]_D = -12.4$ (*c* 1, $CHCl_3$)

Source of chirality: Rh^{II} (*S*)-BINOL-derived catalyst

Absolute configuration: 1*S*,5*R*,7*S* (from X-ray analysis of (−)-borneol ester)

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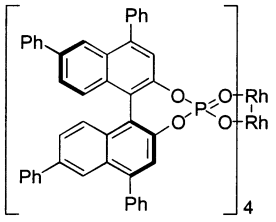
Tetrahedron: Asymmetry *14 (2003) 3841*



$C_{176}H_{112}O_{16}P_4Rh_2$

Tetrakis[(*S*)-4,4′,6,6′-tetraphenyl-1,1′-bi-2-naphthol phosphate]dirhodium(II)

$[\alpha]_D = +215$ (*c* 1, $CHCl_3$)

Source of chirality: (*S*)-BINOL

Absolute configuration: *S*

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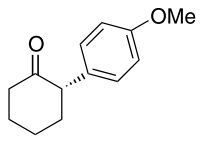

$C_{13}H_{16}O_2$

(*S*)-2-(4-Methoxyphenyl)cyclohexanone

Ee = 89%

$[\alpha]_D^{22} = +76.4$ (*c* 1, $CHCl_3$)

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

Absolute configuration: (*S*)

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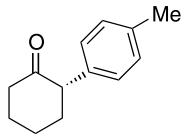
Tetrahedron: Asymmetry *14 (2003) 3851*



$C_{13}H_{16}O$

(*S*)-2-(4-Methylphenyl)cyclohexanone

Ee >99%

$[\alpha]_D^{22} = -82.9$ (*c* 0.79, $CHCl_3$)

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

Absolute configuration: (*S*)

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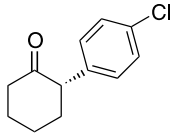
Tetrahedron: Asymmetry *14 (2003) 3851*



$C_{12}H_{13}ClO$

(*S*)-2-(4-Chlorophenyl)cyclohexanone

Ee >99%

$[\alpha]_D^{22} = +64.7$ (*c* 0.346, benzene)

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

Absolute configuration: (*S*)

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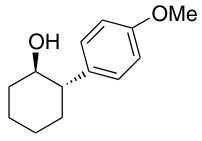
Tetrahedron: Asymmetry *14 (2003) 3851*



$C_{13}H_{18}O_2$

trans-(1*R*,2*S*)-2-(4-Methoxyphenyl)cyclohexanol

Ee = 90%

$[\alpha]_D^{22} = -50.4$ (*c* 1.46, CH_3OH)

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

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

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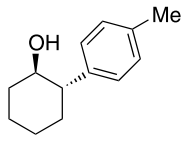
Tetrahedron: Asymmetry *14 (2003) 3851*



$C_{13}H_{18}O$

trans-(1*R*,2*S*)-2-(4-Methylphenyl)cyclohexanol

Ee = 97%

$[\alpha]_D^{22} = -58.3$ (*c* 1.37, CH_3OH)

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

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

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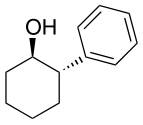
Tetrahedron: Asymmetry *14 (2003) 3851*



$C_{12}H_{16}O$

trans-(1*R*,2*S*)-2-Phenylcyclohexanol

Ee >99%

$[\alpha]_D^{22} = -58$ (*c* 10, CH_3OH)

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

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

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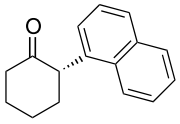
Tetrahedron: Asymmetry *14 (2003) 3851*



$C_{16}H_{16}O$

(*S*)-2-(1-Naphthyl)cyclohexanone

Ee = 43%

$[\alpha]_D^{22} = +24.3$ (*c* 0.21, benzene)

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

Absolute configuration: (*S*)

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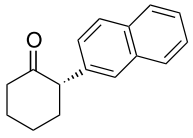
Tetrahedron: Asymmetry *14 (2003) 3851*



$C_{16}H_{16}O$

(*S*)-2-(2-Naphthyl)cyclohexanone

Ee = 80%

$[\alpha]_D^{22} = -62.8$ (*c* 0.38, benzene)

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

Absolute configuration: (*S*)

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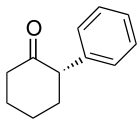
Tetrahedron: Asymmetry *14 (2003) 3851*



$C_{12}H_{14}O$

(*S*)-2-Phenylcyclohexanone

Ee >99%

$[\alpha]_D^{22} = -94.1$ (*c* 1.1, $CHCl_3$)

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

Absolute configuration: (*S*)

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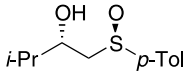
Tetrahedron: Asymmetry *14 (2003) 3851*



$C_{12}H_{18}O_2S$

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

De >99%

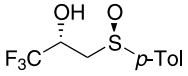
$[\alpha]_D^{22} = +304.0$ (*c* 2, $CHCl_3$)

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

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

Gregorio Asensio,* Ana Cuenca, Nuria Rodriguez and Mercedes Medio-Simón

Tetrahedron: Asymmetry *14 (2003) 3851*



$C_{10}H_{11}F_3O_2S$

(*S*,*R*s)-1,1,1-Trifluoro-3-(4-methylphenylsulfinyl)-2-propanol

De >99%

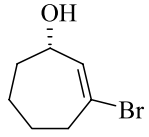
$[\alpha]_D^{22} = +257.6$ (*c* 1, $CHCl_3$)

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

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

Mireille Attolini, Gilles Iacazio, Gilbert Peiffer and Michel Maffei*

Tetrahedron: Asymmetry *14 (2003) 3857*



$C_7H_{11}BrO$

(*S*)-(−)-3-Bromo-cyclohept-2-enol

E.e. >99% (by GC)

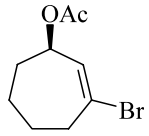
$[\alpha]_D^{20} = -10.6$ (*c* 0.59, CH_2Cl_2)

Source of chirality: enzymatic resolution

Absolute configuration: (*S*)

Mireille Attolini, Gilles Iacazio, Gilbert Peiffer and Michel Maffei*

Tetrahedron: Asymmetry *14 (2003) 3857*



$C_9H_{13}BrO_2$

(*R*)-(+)-3-Acetoxy-1-bromo-cyclohept-1-ene

E.e. = 91% (by GC)

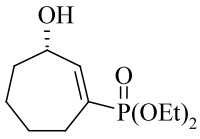
$[\alpha]_D^{20} = +39.5$ (*c* 0.16, CH_2Cl_2)

Source of chirality: enzymatic resolution

Absolute configuration: (*R*)

Mireille Attolini, Gilles Iacazio, Gilbert Peiffer and Michel Maffei*

Tetrahedron: Asymmetry *14 (2003) 3857*



$C_{11}H_{21}O_4P$

(*S*)-(+)-Diethyl (3-hydroxy-cyclohept-1-enyl)phosphonate

E.e. >99% (by GC)

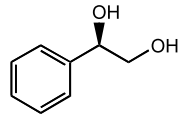
$[\alpha]_D^{20} = +9.9$ (*c* 0.49, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Absolute configuration: (*S*)

Ahmed Kamal,* Mahendra Sandbhor, Kaleem Ahmed, S. F. Adil and Ahmad Ali Shaik

Tetrahedron: Asymmetry *14 (2003) 3861*



$C_8H_{10}O_2$

(*R*)-1-(4-Phenyl)-1,2-ethanediol

E.e. = 70% (by chiral HPLC)

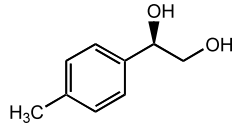
$[\alpha]_D^{25} = -40.3$ (*c* 0.74, $CHCl_3$)

Source of chirality: enzymatic acetylation

Absolute configuration: *R*

Ahmed Kamal,* Mahendra Sandbhor, Kaleem Ahmed, S. F. Adil and Ahmad Ali Shaik

Tetrahedron: Asymmetry *14 (2003) 3861*



$C_9H_{12}O_2$

(*R*)-1-(4-Methylphenyl)-1,2-ethanediol

E.e. >99% (by chiral HPLC)

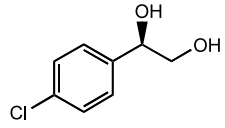
$[\alpha]_D^{25} = -65.2$ (*c* 1.10, $CHCl_3$)

Source of chirality: enzymatic acetylation

Absolute configuration: *R*

Ahmed Kamal,* Mahendra Sandbhor, Kaleem Ahmed, S. F. Adil and Ahmad Ali Shaik

Tetrahedron: Asymmetry *14 (2003) 3861*



$C_8H_9ClO_2$

(*R*)-1-(4-Chlorophenyl)-1,2-ethanediol

E.e. >99% (by chiral HPLC)

$[\alpha]_D^{25} = -57.7$ (*c* 0.51, $CHCl_3$)

Source of chirality: enzymatic acetylation

Absolute configuration: *R*

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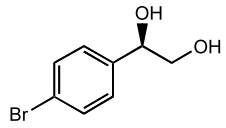
Tetrahedron: Asymmetry *14 (2003) 3861*



$C_8H_9BrO_2$

(*R*)-1-(4-Bromophenyl)-1,2-ethanediol

E.e. = 98% (by chiral HPLC)

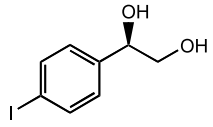
$[\alpha]_D^{25} = -49.4$ (*c* 0.90, $CHCl_3$)

Source of chirality: enzymatic acetylation

Absolute configuration: *R*

Ahmed Kamal,* Mahendra Sandbhor, Kaleem Ahmed, S. F. Adil and Ahmad Ali Shaik

Tetrahedron: Asymmetry *14 (2003) 3861*



$C_8H_9IO_2$

(*R*)-1-(4-Iodophenyl)-1,2-ethanediol

E.e. = 97% (by chiral HPLC)

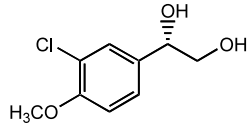
$[\alpha]_D^{25} = -19.9$ (*c* 1.24, methanol)

Source of chirality: enzymatic acetylation

Absolute configuration: *R*

Ahmed Kamal,* Mahendra Sandbhor, Kaleem Ahmed, S. F. Adil and Ahmad Ali Shaik

Tetrahedron: Asymmetry *14 (2003) 3861*



$C_9H_{11}ClO_3$

(*S*)-1-(3-Chloro-4-methoxyphenyl)-1,2-ethanediol

E.e. = 96% (by chiral HPLC)

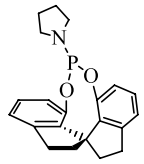
$[\alpha]_D^{25} = +32.8$ (*c* 2.25, $CHCl_3$)

Source of chirality: enzymatic acetylation

Absolute configuration: *S*

Wen-Jian Shi, Li-Xin Wang, Yu Fu, Shou-Fei Zhu and Qi-Lin Zhou*

Tetrahedron: Asymmetry *14 (2003) 3867*



$C_{21}H_{22}NO_2P$

O,*O*′-[(*R*)-1,1′-Spirobiindane-7,7′-diyl]-*P*-(1-pyrrolidinyl)phosphonite

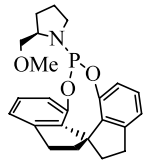
E.e. = 100%

$[\alpha]_D^{25}$ +366 (*c* 1.0, CH_2Cl_2)

Source of chirality: resolution

Absolute configuration: *R*

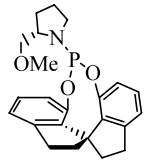
Wen-Jian Shi, Li-Xin Wang, Yu Fu, Shou-Fei Zhu and Qi-Lin Zhou* *Tetrahedron:* Asymmetry *14 (2003) 3867*



E.e. = 100%
$[\alpha]_D^{25}$ +216 (*c* 0.5, $CHCl_3$)
Source of chirality: resolution
Absolute configuration: *R,R*

$C_{23}H_{26}NO_3P$
O,O′-[(*R*)-1,1′-Spirobiindane-7,7′-diyl]-*P*-[1-((*R*)-2-methoxymethylpyrrolidinyl)]phosphonite

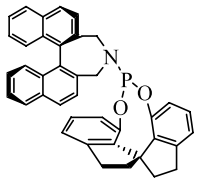
Wen-Jian Shi, Li-Xin Wang, Yu Fu, Shou-Fei Zhu and Qi-Lin Zhou* *Tetrahedron:* Asymmetry *14 (2003) 3867*



E.e. = 100%
$[\alpha]_D^{25}$ +188 (*c* 0.5, $CHCl_3$)
Source of chirality: resolution
Absolute configuration: *R,S*

$C_{23}H_{26}NO_3P$
O,O′-[(*R*)-1,1′-Spirobiindane-7,7′-diyl]-*P*-[1-((*S*)-2-methoxymethylpyrrolidinyl)]phosphonite

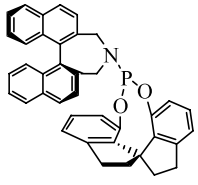
Wen-Jian Shi, Li-Xin Wang, Yu Fu, Shou-Fei Zhu and Qi-Lin Zhou* *Tetrahedron:* Asymmetry *14 (2003) 3867*



E.e. = 100%
$[\alpha]_D^{25}$ −405 (*c* 0.1, $CHCl_3$)
Source of chirality: resolution
Absolute configuration: *R,R*

$C_{39}H_{30}NO_2P$
O,O′-[(*R*)-1,1′-Spirobiindane-7,7′-diyl]-*P*-[1-((*R*)-3,5-dihydro-4*H*-binaphth[2,1-c:1′,2′-e]-azepinyl)]phosphonite

Wen-Jian Shi, Li-Xin Wang, Yu Fu, Shou-Fei Zhu and Qi-Lin Zhou* *Tetrahedron:* Asymmetry *14 (2003) 3867*

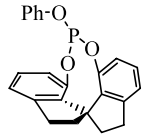


E.e. = 100%
$[\alpha]_D^{25}$ −263 (*c* 0.1, $CHCl_3$)
Source of chirality: resolution
Absolute configuration: *R,S*

$C_{39}H_{30}NO_2P$
O,O′-[(*R*)-1,1′-Spirobiindane-7,7′-diyl]-*P*-[1-((*S*)-3,5-dihydro-4*H*-binaphth[2,1-c:1′,2′-e]-azepinyl)]phosphonite

Wen-Jian Shi, Li-Xin Wang, Yu Fu, Shou-Fei Zhu and Qi-Lin Zhou*

Tetrahedron: Asymmetry *14 (2003) 3867*



E.e. = 100%

$[\alpha]_D^{25}$ +72 (*c* 0.5, $CHCl_3$)

Source of chirality: resolution

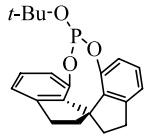
Absolute configuration: *R*

$C_{23}H_{19}O_3P$

Phenyl-[(*R*)-1,1′-spirobiindane-7,7′-diyl]-phosphite

Wen-Jian Shi, Li-Xin Wang, Yu Fu, Shou-Fei Zhu and Qi-Lin Zhou*

Tetrahedron: Asymmetry *14 (2003) 3867*



E.e. = 100%

$[\alpha]_D^{25}$ +80 (*c* 0.5, $CHCl_3$)

Source of chirality: resolution

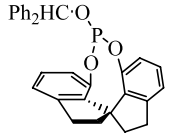
Absolute configuration: *R*

$C_{21}H_{23}O_3P$

tert-Butyl-[(*R*)-1,1′-spirobiindane-7,7′-diyl]-phosphite

Wen-Jian Shi, Li-Xin Wang, Yu Fu, Shou-Fei Zhu and Qi-Lin Zhou*

Tetrahedron: Asymmetry *14 (2003) 3867*



E.e. = 100%

$[\alpha]_D^{25}$ = +218 (*c* 0.53, $CHCl_3$)

Source of chirality: resolution

Absolute configuration: *R*

$C_{30}H_{25}O_3P$

Diphenylmethyl-[(*R*)-1,1′-spirobiindane-7,7′-diyl]-phosphite

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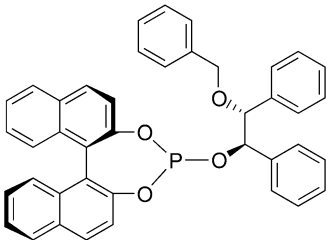
Patrizia Scafato, Stefania Labano, Giovanni Cunsolo and Carlo Rosini*

Tetrahedron: Asymmetry *14 (2003) 3873*



E.e. >99%

$[\alpha]_D^{20}$ = −246 (*c* 0.55, $CHCl_3$)

Source of chirality: (*R*)-(+)-1,1′-bi-2-naphthol and (*R*,*R*)-(+)-1,2-diphenylethane-1,2-diol

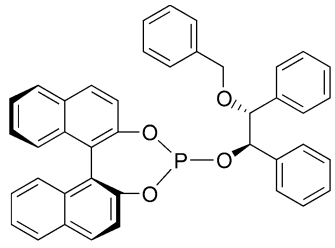
Absolute configuration: *aR*,*R*,*R*

$C_{41}H_{31}O_4P$

(*aR*,*R*,*R*)-(−)-4-(2-Benzyloxy-1,2-diphenyl-ethoxy)-3,5-dioxa-4-phospha-cyclohepta[2,1-*a*;3,4-*a*′]dinaphthalene

Patrizia Scafato, Stefania Labano, Giovanni Cunsolo and Carlo Rosini*

Tetrahedron: Asymmetry *14 (2003) 3873*



$C_{41}H_{31}O_4P$

(*aS*,*R*,*R*)-(+)-4-(2-Benzyloxy-1,2-diphenyl-ethoxy)-3,5-dioxa-4-phospha-cyclohepta[2,1-*a*;3,4-*a*']dinaphthalene

Ee >99%

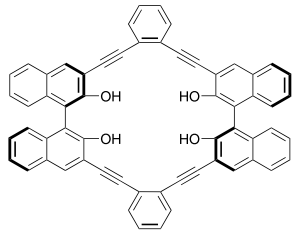
$[\alpha]_D^{20} = +221$ (*c* 0.53, $CHCl_3$)

Source of chirality: (*S*)-(−)-1,1′-bi-2-naphthol and (*R*,*R*)-(+)-1,2-diphenylethane-1,2-diol

Absolute configuration: *aS*,*R*,*R*

Toshiro Harada,* Shin-ichiro Matsui, Tran Mai Thi Tuyet, Masanori Hatsuda, Shinji Ueda, Akira Oku and Motoo Shiro

Tetrahedron: Asymmetry *14 (2003) 3879*



$C_{60}H_{32}O_4$

1,2-Phenylene bridged macrocyclic binaphthol dimer

E.e. >99%

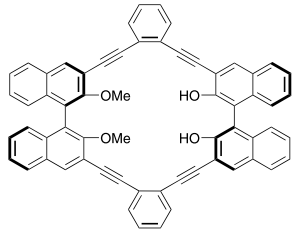
$[\alpha]_D^{25} = +445$ (*c* 1.00, $CHCl_3$)

Source of chirality: optically active starting binaphthol

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

Toshiro Harada,* Shin-ichiro Matsui, Tran Mai Thi Tuyet, Masanori Hatsuda, Shinji Ueda, Akira Oku and Motoo Shiro

Tetrahedron: Asymmetry *14 (2003) 3879*



$C_{62}H_{36}O_4$

1,2-Phenylene-bridged *O*,*O*′-demethyl macrocyclic binaphthol dimer

E.e. >99%

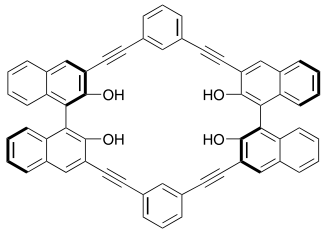
$[\alpha]_D^{25} = +51.0$ (*c* 1.00, $CHCl_3$)

Source of chirality: optically active starting binaphthol

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

Toshiro Harada,* Shin-ichiro Matsui, Tran Mai Thi Tuyet, Masanori Hatsuda, Shinji Ueda, Akira Oku and Motoo Shiro

Tetrahedron: Asymmetry *14 (2003) 3879*



$C_{60}H_{32}O_4$

1,3-Phenylene bridged macrocyclic binaphthol dimer

E.e. >99%

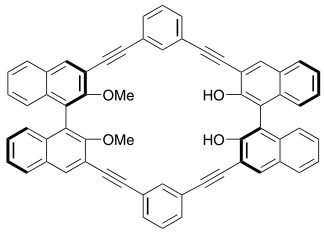
$[\alpha]_D^{25} = +1160$ (*c* 0.35, $CHCl_3$)

Source of chirality: optically active starting binaphthol

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

Toshiro Harada,* Shin-ichiro Matsui, Tran Mai Thi Tuyet, Masanori Hatsuda, Shinji Ueda, Akira Oku and Motoo Shiro

Tetrahedron: Asymmetry *14 (2003) 3879*



$C_{62}H_{36}O_4$

1,3-Phenylene-bridged *O*,*O*′-demethyl macrocyclic binaphthol dimer

E.e. >99%

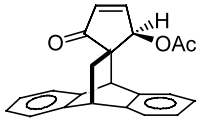
$[\alpha]_D^{25} = +1280$ (*c* 0.35, $CHCl_3$)

Source of chirality: optically active starting binaphthol

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

Tawesin Klomklao, Stephen G. Pyne,* Apiwat Baramee, Brian W. Skelton and Allan H. White

Tetrahedron: Asymmetry *14 (2003) 3885*



$C_{22}H_{18}O_2$

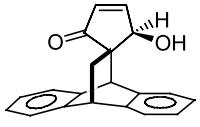
(−)-(1*S*,5*R*)-9′,10′-Dihydro-5-acetoxy-spiro[3-cyclopenten-1,11′-(9,10)ethanoanthracene]-2-one

$[\alpha]_D^{24} = -189.2$ (*c* 2.03, $CHCl_3$)

Ee >98% [from NMR analysis using the chiral shift reagent Eu(hfc_3)]

Tawesin Klomklao, Stephen G. Pyne,* Apiwat Baramee, Brian W. Skelton and Allan H. White

Tetrahedron: Asymmetry *14 (2003) 3885*



$C_{20}H_{16}O_2$

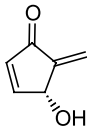
(−)-(1*S*,5*R*)-9′,10′-Dihydro-5-hydroxy-spiro[3-cyclopenten-1,11′-(9,10)ethanoanthracene]-2-one

$[\alpha]_D^{27} = -120$ (*c* 1.28, $CHCl_3$)

Ee >98% [from NMR analysis of its acetate derivative using the chiral shift reagent Eu(hfc_3)]

Tawesin Klomklao, Stephen G. Pyne,* Apiwat Baramee, Brian W. Skelton and Allan H. White

Tetrahedron: Asymmetry *14 (2003) 3885*



$C_6H_6O_2$

(−)-(4*R*)-4-Hydroxy-5-methylene-2-cyclopentenone

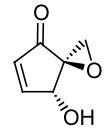
$[\alpha]_D^{26} = -163.3$ (*c* 1.24, $CHCl_3$)

Ee >98% based upon the ee of its precursor

Tawesin Klomklao, Stephen G. Pyne,* Apiwat Baramee, Brian W. Skelton and Allan H. White

Tetrahedron: Asymmetry *14 (2003) 3885*

$[\alpha]_D^{26} = -159.6$ (*c* 1.03, $CHCl_3$)
Ee >98% based upon the ee of its precursor



$C_6H_6O_3$
(−)-(3*S*,7*R*)-7-Hydroxy-1-oxaspiro[2.4]hept-5-en-4-one

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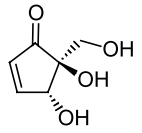
Tetrahedron: Asymmetry *14 (2003) 3885*

$[\alpha]_D^{26} = -75$ (*c* 1.15, MeOH)



$C_6H_8O_4$
(−)-(4*R*,5*S*)-Epipentenomycin I

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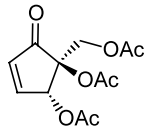
Tetrahedron: Asymmetry *14 (2003) 3885*

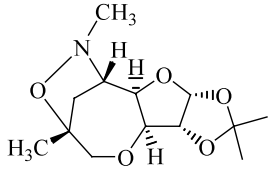
$[\alpha]_D^{26} = -55.1$ (*c* 1.16, MeOH)



$C_{12}H_{14}O_7$
(−)-(4*R*,5*S*)-Epipentenomycin I triacetate

G. V. M. Sharma,* Asra Begum, K. Ravinder Reddy, A. Ravi Sankar and A. C. Kunwar

Tetrahedron: Asymmetry *14 (2003) 3899*



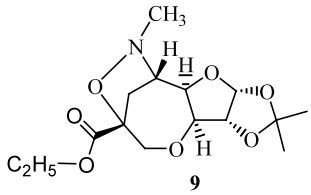
8

$[\alpha]_D = -17.25$ (*c* 0.75, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1*S*,2*R*,4*R*,8*R*,9*S*,12*R*)

$C_{13}H_{21}NO_5$
6,6,12,14-Tetramethyl-(1*S*,2*R*,4*R*,8*R*,9*S*,12*R*)-3,5,7,10,13-pentaoxa-14-azatetracyclo[10.2.1.$0^{2,9}$.$0^{4,8}$]pentadecane

G. V. M. Sharma,* Asra Begum, K. Ravinder Reddy, A. Ravi Sankar and A. C. Kunwar

Tetrahedron: Asymmetry *14 (2003) 3899*



9

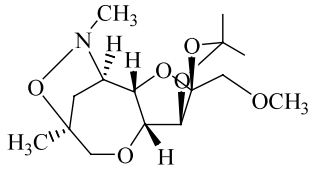
$[\alpha]_D = +71.0$ (c 0.5, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1*S*,2*R*,4*R*,8*R*,9*S*,12*R*)

$C_{15}H_{23}NO_7$

Ethyl 6,6,14-trimethyl-(1*S*,2*R*,4*R*,8*R*,9*S*,12*R*)-3,5,7,10,13-pentaoxa-14-azatetracyclo[10.2.1.$0^{2,9}$.$0^{4,8}$]pentadecane-12-carboxylate

G. V. M. Sharma,* Asra Begum, K. Ravinder Reddy, A. Ravi Sankar and A. C. Kunwar

Tetrahedron: Asymmetry *14 (2003) 3899*



20

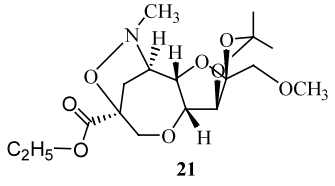
$[\alpha]_D = +21.3$ (c 0.5, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1*R*,2*S*,4*S*,8*S*,9*R*,12*S*)

$C_{15}H_{25}NO_6$

4-Methoxymethyl-6,6,12,14-tetramethyl-(1*R*,2*S*,4*S*,8*S*,9*R*,12*S*)-3,5,7,10,13-pentaoxa-14-azatetracyclo[10.2.1.$0^{2,9}$.$0^{4,8}$]pentadecane

G. V. M. Sharma,* Asra Begum, K. Ravinder Reddy, A. Ravi Sankar and A. C. Kunwar

Tetrahedron: Asymmetry *14 (2003) 3899*



21

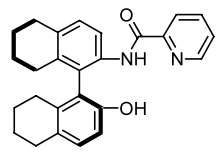
$[\alpha]_D = -26.3$ (c 0.5, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1*R*,2*S*,4*S*,8*S*,9*R*,12*S*)

$C_{17}H_{27}NO_8$

Ethyl 4-methoxymethyl-6,6,14-trimethyl-(1*R*,2*S*,4*S*,8*S*,9*R*,12*S*)-3,5,7,10,13-pentaoxa-14-azatetracyclo[10.2.1.$0^{2,9}$.$0^{4,8}$]pentadecane-12-carboxylate

Yuanchun Hu, Xinmiao Liang, Junwei Wang, Zhuo Zheng and Xinquan Hu*

Tetrahedron: Asymmetry *14 (2003) 3907*



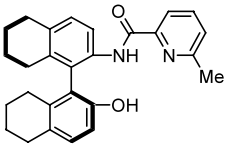
Ee >99%
$[\alpha]_D^{21} = -113.9$ (c 0.5, $CHCl_3$)
Source of chirality: synthesized
Absolute configuration: *S*

$C_{26}H_{26}N_2O_2$

(*S*)-(−)-2-(2-Pyridinylcarboxamido)-2′-hydroxy-5,5′,6,6′,7,7′,8,8′-octahydro-1,1′-binaphthyl

Yuanchun Hu, Xinmiao Liang, Junwei Wang, Zhuo Zheng and Xinquan Hu*

Tetrahedron: Asymmetry *14 (2003) 3907*



Ee >99%
$[\alpha]_D^{22} = -119.1$ (*c* 0.5, $CHCl_3$)
Source of chirality: synthesized
Absolute configuration: *S*

$C_{27}H_{28}N_2O_2$

(*S*)-(−)-2-(6-Methyl-2-pyridinylcarboxamido)-2′-hydroxy-5,5′,6,6′,7,7′,8,8′-octahydro-1,1′-binaphthyl

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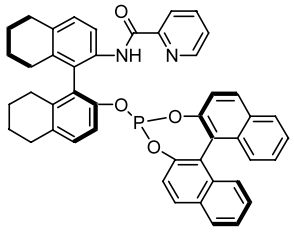
Yuanchun Hu, Xinmiao Liang, Junwei Wang, Zhuo Zheng and Xinquan Hu*

Tetrahedron: Asymmetry *14 (2003) 3907*



Ee >99%
$[\alpha]_D^{22} = +177.3$ (*c* 0.5, THF)
Source of chirality: synthesized
Absolute configuration: *S*,*S*

$C_{46}H_{37}N_2O_4P$

(*S*,*S*)-(+)-Pyridine-2-carboxylic acid [2′-(3,5-dioxa-4-phospha-cyclohepta[2,1-a;3,4-a′]dinaphthalen-4-yloxy)-5,6,7,8,5′,6′,7′,8′-octahydro-[1,1′]binaphthalenyl-2-yl]-amide

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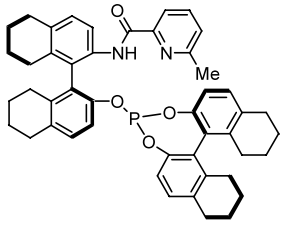
Yuanchun Hu, Xinmiao Liang, Junwei Wang, Zhuo Zheng and Xinquan Hu*

Tetrahedron: Asymmetry *14 (2003) 3907*



Ee >99%
$[\alpha]_D^{22} = +37.7$ (*c* 0.5, THF)
Source of chirality: synthesized
Absolute configuration: *S*,*S*

$C_{47}H_{47}N_2O_4P$

(*S*,*S*)-(+)-6-Methyl-pyridine-2-carboxylic acid [2′-(8,9,10,11,12,13,14,15-octahydro-3,5-dioxa-4-phospha-cyclohepta[2,1-a;3,4-a′]-dinaphthalen-4-yloxy)-5,6,7,8,5′,6′,7′,8′-octahydro-[1,1′]binaphthalenyl-2-yl]-amide

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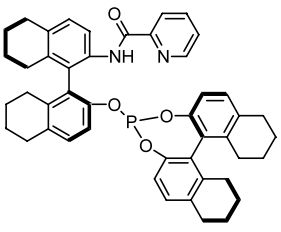
Yuanchun Hu, Xinmiao Liang, Junwei Wang, Zhuo Zheng and Xinquan Hu*

Tetrahedron: Asymmetry *14 (2003) 3907*



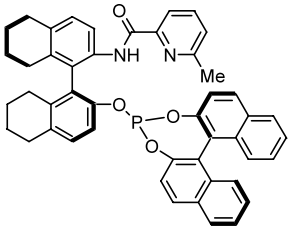
Ee >99%
$[\alpha]_D^{22} = +45.9$ (*c* 0.5, THF)
Source of chirality: synthesized
Absolute configuration: *S*,*S*

$C_{46}H_{45}N_2O_4P$

(*S*,*S*)-(+)-Pyridine-2-carboxylic acid [2′-(8,9,10,11,12,13,14,15-octahydro-3,5-dioxa-4-phospha-cyclohepta[2,1-a;3,4-a′]-dinaphthalen-4-yloxy)-5,6,7,8,5′,6′,7′,8′-octahydro-[1,1′]binaphthalenyl-2-yl]-amide

Yuanchun Hu, Xinmiao Liang, Junwei Wang, Zhuo Zheng and Xinquan Hu*

Tetrahedron: Asymmetry *14 (2003) 3907*



$C_{47}H_{39}N_2O_4P$

(*S*,*S*)-(+)-6-Methyl-pyridine-2-carboxylic acid [2′-(3,5-dioxa-4-phospha-cyclohepta[2,1-a;3,4-a′]dinaphthalon-4-yloxy)-5,6,7,8,5′,6′,7′,8′-octahydro-[1,1′]binaphthalenyl-2-yl]-amide

Ee >99%

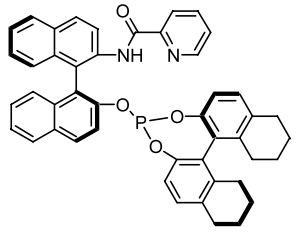
$[\alpha]_D^{22}=+173.5$ (*c* 0.5, THF)

Source of chirality: synthesized

Absolute configuration: *S*,*S*

Yuanchun Hu, Xinmiao Liang, Junwei Wang, Zhuo Zheng and Xinquan Hu*

Tetrahedron: Asymmetry *14 (2003) 3907*



$C_{46}H_{37}N_2O_4P$

(*S*,*S*)-(+)-Pyridine-2-carboxylic acid [2′-(8,9,10,11,12,13,14,15-octahydro-3,5-dioxa-4-phospha-cyclohepta[2,1-a;3,4-a′]dinaphthalen-4-yloxy)-[1,1′]binaphthalenyl-2-yl]-amide

Ee >99%

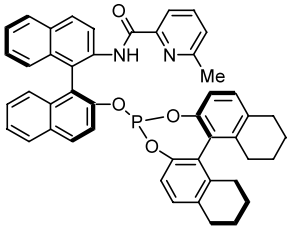
$[\alpha]_D^{22}=+60.3$ (*c* 0.5, THF)

Source of chirality: synthesized

Absolute configuration: *S*,*S*

Yuanchun Hu, Xinmiao Liang, Junwei Wang, Zhuo Zheng and Xinquan Hu*

Tetrahedron: Asymmetry *14 (2003) 3907*



$C_{47}H_{39}N_2O_4P$

(*S*,*S*)-(+)-6-Methyl-pyridine-2-carboxylic acid [2′-(8,9,10,11,12,13,14,15-octahydro-3,5-dioxa-4-phospha-cyclohepta[2,1-a;3,4-a′]-dinaphthalen-4-yloxy)-[1,1′]binaphthalenyl-2-yl]-amide

Ee >99%

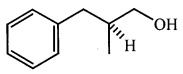
$[\alpha]_D^{22}=+57.1$ (*c* 0.5, THF)

Source of chirality: synthesized

Absolute configuration: *S*,*S*

Alessandra Mezzetti, Curtis Keith and Romas J. Kazlauskas*

Tetrahedron: Asymmetry *14 (2003) 3917*



$C_{10}H_{14}O$

(*S*)-(−)-2-Methyl-3-phenyl-1-propanol

Ee = 98%

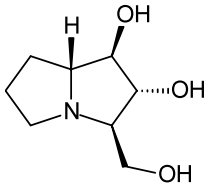
$[\alpha]_D^{20}=-11.3$ (*c* 0.124, C_6H_6)

Source of chirality: enzymatic kinetic resolution

Absolute configuration: *S*

Isidoro Izquierdo,* María T. Plaza and Francisco Franco

Tetrahedron: Asymmetry *14 (2003) 3933*



$C_8H_{15}NO_3$

(1*R*,2*R*,3*R*,7a*R*)-1,2-Dihydroxy-3-hydroxymethylpyrrolizidine

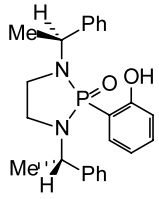
$[\alpha]_D = +10.5$ (*c* 0.6, water)

Source of chirality: D-fructose and stereoselective synthesis

Absolute configuration: 1*R*,2*R*,3*R*,7a*R* (assigned by NMR spectroscopic and chemical correlation)

Zhuohong Yang, Zhenghong Zhou,* Ke He, Lixin Wang, Guofeng Zhao, Qilin Zhou and Chuchi Tang*

Tetrahedron: Asymmetry *14 (2003) 3937*



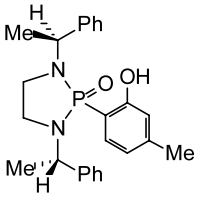
$C_{24}H_{27}N_2O_2P$

(−)-(*S*,*S*)-1,3-Di-α-phenylethyl-2-*o*-hydroxyphenyl-2-oxo-1,3,2-diazaphospholidine

$[\alpha]_D^{20} = -32.3$ (*c* 1, $CHCl_3$)

Zhuohong Yang, Zhenghong Zhou,* Ke He, Lixin Wang, Guofeng Zhao, Qilin Zhou and Chuchi Tang*

Tetrahedron: Asymmetry *14 (2003) 3937*



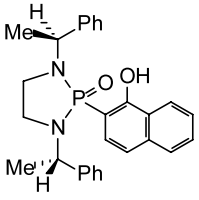
$C_{25}H_{29}N_2O_2P$

(−)-(*S*,*S*)-1,3-Di-α-phenylethyl-2-(2-hydroxy-5-methylphenyl) 2-oxo-1,3,2-diazaphospholidine

$[\alpha]_D^{20} = -13.6$ (*c* 1, $CHCl_3$)

Zhuohong Yang, Zhenghong Zhou,* Ke He, Lixin Wang, Guofeng Zhao, Qilin Zhou and Chuchi Tang*

Tetrahedron: Asymmetry *14 (2003) 3937*



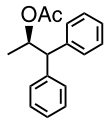
$C_{28}H_{29}N_2O_2P$

(−)-(*S*,*S*)-1,3-Di-α-phenylethyl-2-(1-hydroxy-2-naphthyl)-2-oxo-1,3,2-diazaphospholidine, oxide

$[\alpha]_D^{20} = +83.3$ (*c* 1, $CHCl_3$)

Tadashi Ema,* Masafumi Kageyama, Toshinobu Korenaga and Takashi Sakai*

Tetrahedron: Asymmetry *14 (2003) 3943*



$C_{17}H_{18}O_2$

(*R*)-1,1-Diphenyl-2-propyl acetate

E.e. >98% (by HPLC)

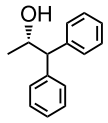
$[\alpha]_D^{14} = +44.2$ (*c* 0.5, MeOH)

Source of chirality: lipase resolution

Absolute configuration: *R*

Tadashi Ema,* Masafumi Kageyama, Toshinobu Korenaga and Takashi Sakai*

Tetrahedron: Asymmetry *14 (2003) 3943*



$C_{15}H_{16}O$

(*S*)-1,1-Diphenyl-2-propanol

E.e. = 58% (by HPLC)

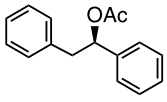
$[\alpha]_D^{18} = -28.6$ (*c* 0.5, MeOH)

Source of chirality: lipase resolution

Absolute configuration: *S*

Tadashi Ema,* Masafumi Kageyama, Toshinobu Korenaga and Takashi Sakai*

Tetrahedron: Asymmetry *14 (2003) 3943*



$C_{16}H_{16}O_2$

(*R*)-1,2-Diphenylethyl acetate

E.e. = 66% (by HPLC)

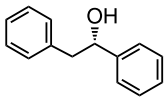
$[\alpha]_D^{15} = +14.0$ (*c* 0.5, $CHCl_3$)

Source of chirality: lipase resolution

Absolute configuration: *R*

Tadashi Ema,* Masafumi Kageyama, Toshinobu Korenaga and Takashi Sakai*

Tetrahedron: Asymmetry *14 (2003) 3943*



$C_{14}H_{14}O$

(*S*)-1,2-Diphenylethanol

E.e. = 18% (by HPLC)

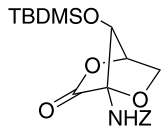
$[\alpha]_D^{15} = +8.2$ (*c* 0.5, MeOH)

Source of chirality: lipase resolution

Absolute configuration: *S*

Raquel G. Soengas, Juan C. Estévez and Ramón J. Estévez*

Tetrahedron: Asymmetry *14 (2003) 3955*



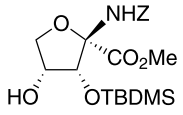
$[\alpha]_D^{23} = -44.4$ (*c* 0.9, $CHCl_3$)
Source of asymmetry: D-glyceraldehyde
Absolute configuration: (1*S*,4*R*,7*R*)

$C_{19}H_{27}NO_6Si$

(1*S*,4*R*,7*R*)-{7-(*tert*-Butyldimethylsilanyloxy)-6-oxo-2,5-dioxabicyclo[2.2.1]hept-1-yl}carbamic acid benzyl ester

Raquel G. Soengas, Juan C. Estévez and Ramón J. Estévez*

Tetrahedron: Asymmetry *14 (2003) 3955*



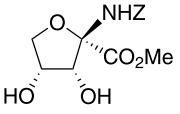
$[\alpha]_D^{20} = -30.4$ (*c* 1.6, $CHCl_3$)
Source of asymmetry: D-glyceraldehyde
Absolute configuration: (2*S*,3*R*,4*R*)

$C_{20}H_{31}NO_7Si$

(2*S*,3*R*,4*R*)-2-Benzyloxycarbonylamino-3-(*tert*-butyldimethylsilanyloxy)-4-hydroxytetrahydrofuran-2-carboxylic acid methyl ester

Raquel G. Soengas, Juan C. Estévez and Ramón J. Estévez*

Tetrahedron: Asymmetry *14 (2003) 3955*



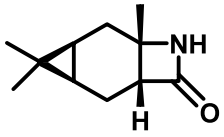
$[\alpha]_D^{20} = -12.4$ (*c* 0.9, $CHCl_3$)
Source of asymmetry: D-glyceraldehyde
Absolute configuration: (2*S*,3*R*,4*R*)

$C_{14}H_{17}NO_7$

(2*S*,3*R*,4*R*)-2-Benzyloxycarbonylamino-3,4-dihydroxytetrahydrofuran-2-carboxylic acid methyl ester

Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



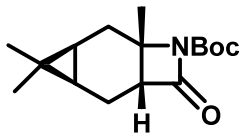
$[\alpha]_D^{20} = +56.9$ (*c* 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1*R*,3*R*,5*S*,7*S*

$C_{11}H_{17}NO$

(1*R*,3*R*,5*S*,7*S*)-4,4,7-Trimethyl-8-azatricyclo[5.2.0.$0^{3,5}$]nonan-9-one

Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



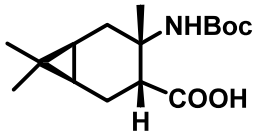
$[\alpha]_D^{20} = +29.7$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1*R*,3*R*,5*S*,7*S*

$C_{16}H_{25}NO_3$

(1*R*,3*R*,5*S*,7*S*)-*N*-*tert*-Butoxycarbonyl-4,4,7-trimethyl-8-azatricyclo[5.2.0.0^{3,5}]nonan-9-one

Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



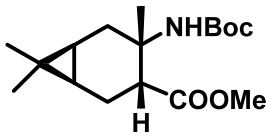
$[\alpha]_D^{20} = +31.3$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1*R*,3*R*,4*S*,6*S*

$C_{16}H_{27}NO_4$

(1*R*,3*R*,4*S*,6*S*)-4-*tert*-Butoxycarbonylamino-4,7,7-trimethylbicyclo[4.1.0]heptane-3-carboxylic acid

Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



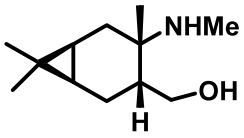
$[\alpha]_D^{20} = -22.3$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1*R*,3*R*,4*S*,6*S*

$C_{17}H_{29}NO_4$

Methyl (1*R*,3*R*,4*S*,6*S*)-4-*tert*-butoxycarbonylamino-4,7,7-trimethylbicyclo[4.1.0]heptane-3-carboxylate

Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



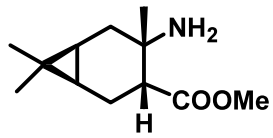
$[\alpha]_D^{20} = +11.0$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1*R*,3*R*,4*S*,6*S*

$C_{12}H_{23}NO$

(1*R*,3*R*,4*S*,6*S*)-(4,7,7-Trimethyl-4-methylaminobicyclo[4.1.0]hept-3-yl)methanol

Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



$[\alpha]_D^{20} = -26.7$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1*R*,3*R*,4*S*,6*S*

$C_{12}H_{21}NO_2$
Methyl (1*R*,3*R*,4*S*,6*S*)-4-amino-4,7,7-trimethylbicyclo[4.1.0]heptane-3-carboxylate

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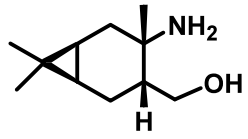
Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



$[\alpha]_D^{20} = +10.1$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1*R*,3*R*,4*S*,6*S*

$C_{11}H_{21}NO$
(1*R*,3*R*,4*S*,6*S*)-(4-Amino-4,7,7-trimethylbicyclo[4.1.0]hept-3-yl)methanol

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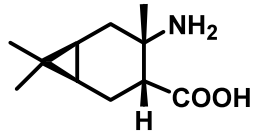
Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



$[\alpha]_D^{20} = +23.0$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1*R*,3*R*,4*S*,6*S*

$C_{11}H_{19}NO_2$
(1*R*,3*R*,4*S*,6*S*)-4-Amino-4,7,7-trimethylbicyclo[4.1.0]heptane-3-carboxylic acid

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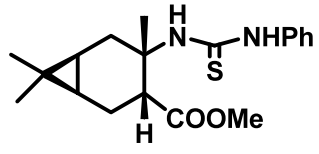
Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*

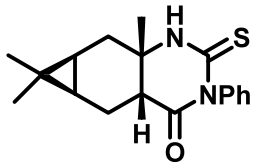


$[\alpha]_D^{20} = -26.7$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1*R*,3*R*,4*S*,6*S*

$C_{19}H_{26}N_2O_2S$
Methyl (1*R*,3*R*,4*S*,6*S*)-4,7,7-trimethyl-4-(3-phenylthioureido)bicyclo[4.1.0]heptane-3-carboxylate

Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



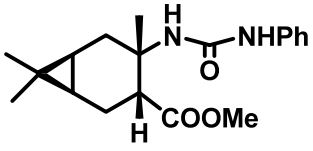
$[\alpha]_D^{20} = +49.3$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1a*R*,2a*R*,6a*S*,7a*S*

$C_{18}H_{22}N_2OS$

(1a*R*,2a*R*,6a*S*,7a*S*)-1,1,6a-Trimethyl-4-phenyl-5-thioxodecahydro-4,6-diazacyclopropa[*b*]naphthalen-3-one

Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



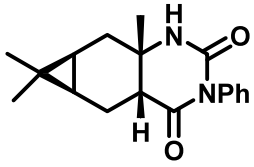
$[\alpha]_D^{20} = +60.9$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1*R*,3*R*,4*S*,6*S*

$C_{19}H_{26}N_2O_3$

Methyl (1*R*,3*R*,4*S*,6*S*)-4,7,7-trimethyl-4-(3-phenylureido)bicyclo[4.1.0]heptane-3-carboxylate

Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



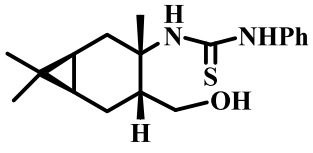
$[\alpha]_D^{20} = +51.3$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1a*R*,2a*R*,6a*S*,7a*S*

$C_{18}H_{22}N_2O_2$

(1a*R*,2a*R*,6a*S*,7a*S*)-1,1,6a-Trimethyl-4-phenyloctahydro-4,6-diazacyclopropa[*b*]naphthalene-3,5-dione

Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



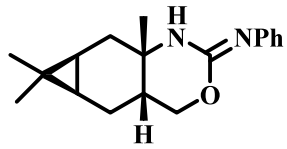
$[\alpha]_D^{20} = -80.0$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1*S*,3*S*,4*R*,6*R*

$C_{18}H_{26}N_2OS$

(1*S*,3*S*,4*R*,6*R*)-1-(4-Hydroxymethyl-3,7,7-trimethylbicyclo[4.1.0]hept-3-yl)-3-phenylthiourea

Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



$[\alpha]_D^{20} = +29.7$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1a*R*,2a*R*,6a*S*,7a*S*

$C_{18}H_{24}N_2O$

(1a*R*,2a*R*,6a*S*,7a*S*)-Phenyl-(1,1,6a-trimethyloctahydro-4-oxa-6-azacyclopropa[*b*]naphthalen-5-ylidene)amine

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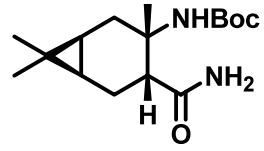
Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



$[\alpha]_D^{20} = +33.0$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1*R*,3*R*,4*S*,6*S*

$C_{16}H_{28}N_2O_3$

tert-Butyl (1*R*,3*R*,4*S*,6*S*)-(3-aminocarbonyl-4,7,7-trimethylbicyclo[4.1.0]hept-4-yl)-carbamate

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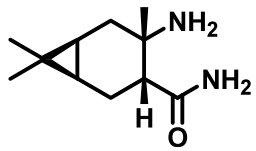
Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



$[\alpha]_D^{20} = +36.2$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1*R*,3*R*,4*S*,6*S*

$C_{11}H_{20}N_2O$

(1*R*,3*R*,4*S*,6*S*)-4-Amino-4,7,7-trimethyl-bicyclo[4.1.0]heptane-3-carboxamide

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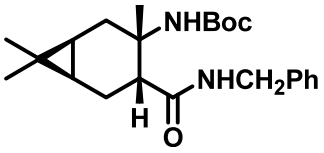
Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



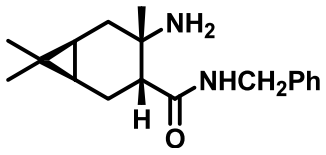
$[\alpha]_D^{20} = +31.5$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1*R*,3*R*,4*S*,6*S*

$C_{23}H_{34}N_2O_3$

tert-Butyl (1*R*,3*R*,4*S*,6*S*)-(3-benzylaminocarbonyl-4,7,7-trimethylbicyclo[4.1.0]hept-4-yl)carbamate

Szilvia Gyónfalvi, Zsolt Szakonyi and Ferenc Fülöp*

Tetrahedron: Asymmetry *14 (2003) 3965*



$[\alpha]_D^{20} = +34.3$ (c 1, MeOH)
Source of chirality: (+)-(1*S*,6*R*)-3-carene
Absolute configuration: 1*R*,3*R*,4*S*,6*S*

$C_{18}H_{26}N_2O$
(1*R*,3*R*,4*S*,6*S*)-*N*-Benzyl-4-amino-4,7,7-trimethylbicyclo[4.1.0]heptane-3-carboxamide

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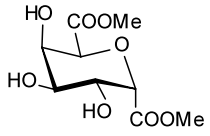
Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

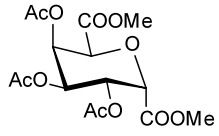


$[\alpha]_D^{20} = +106$ (c 0.7, MeOH)
Source of chirality: D-galactose

$C_8H_{14}O_7$
Methyl 2,6-anhydro-D-*glycero*-L-*gluco*-heptonate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*



$[\alpha]_D^{20} = +173$ (c 0.7, $CHCl_3$)
Source of chirality: D-galactose

$C_{15}H_{20}O_{11}$
Dimethyl 3,4,5-tri-*O*-acetyl-2,6-anhydro-D-*glycero*-L-*gluco*-heptarate

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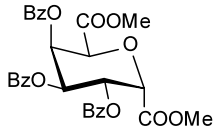
Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*



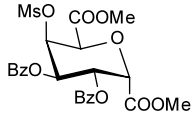
$[\alpha]_D^{20} = +217$ (c 1.1, $CHCl_3$)
Source of chirality: D-galactose

$C_{30}H_{26}O_{11}$
Dimethyl 3,4,5-tri-*O*-benzoyl-2,6-anhydro-D-*glycero*-L-*gluco*-heptarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +174$ (c 0.5, $CHCl_3$)
Source of chirality: D-galactose



$C_{24}H_{24}O_{12}S$
Dimethyl 2,6-anhydro-3,4-di-*O*-benzoyl-5-*O*-mesyl-D-*glycero*-L-*gluco*-heptarate

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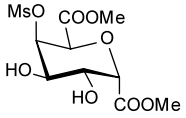
Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +92$ (c 0.7, $CHCl_3$)
Source of chirality: D-galactose

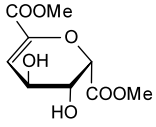


$C_{15}H_{16}O_{16}S$
Dimethyl 2,6-anhydro-5-*O*-mesyl-D-*glycero*-L-*gluco*-heptarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +106.0$ (c 0.6, acetone)
Source of chirality: D-galactose

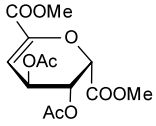


$C_9H_{12}O_7$
Dimethyl 2,6-anhydro-3-deoxy-D-*xylo*-hept-2-enarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +146.0$ (c 0.8, $CHCl_3$)
Source of chirality: D-galactose



$C_{13}H_{16}O_9$
Dimethyl 4,5-di-*O*-acetyl-2,6-anhydro-3-deoxy-D-*xylo*-hept-2-enarate

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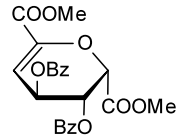
Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +127.0$ (c 0.9, $CHCl_3$)

Source of chirality: D-galactose



$C_{23}H_{20}O_9$

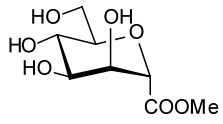
Dimethyl 4,5-di-*O*-benzoyl-2,6-anhydro-3-deoxy-D-*xylo*-hept-2-enarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +39.6$ (c 1.1, MeOH)

Source of chirality: D-mannose



$C_8H_{14}O_7$

Methyl 2,6-anhydro-D-*glycero*-D-*talo*-heptonate

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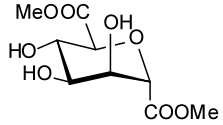
Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +61.4$ (c 1.5, MeOH)

Source of chirality: D-mannose



$C_9H_{14}O_8$

Dimethyl 2,6-anhydro-D-*glycero*-D-*talo*-heptarate

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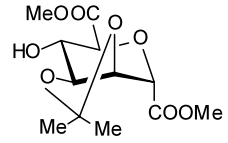
Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +12.5$ (c 1.0, acetone)

Source of chirality: D-mannose



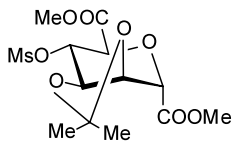
$C_{12}H_{18}O_8$

Dimethyl 2,6-anhydro-3,4-*O*-isopropylidene-D-*glycero*-D-*talo*-heptarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +9.7$ (c 1.0, $CHCl_3$)
Source of chirality: D-mannose

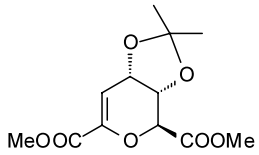


$C_{13}H_{20}O_{10}S$
Dimethyl 2,6-anhydro-3,4-*O*-isopropylidene-5-*O*-mesyl-D-*glycero*-D-*talo*-heptarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +41.9$ (c 1.0, $CHCl_3$)
Source of chirality: D-mannose

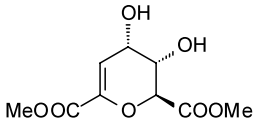


$C_{12}H_{16}O_7$
Dimethyl 2,6-anhydro-4,5-*O*-isopropylidene-3-deoxy-D-*ribo*-hept-2-enarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +150.4$ (c 1.0, acetone)
Source of chirality: D-mannose

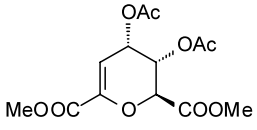


$C_9H_{12}O_7$
Dimethyl 2,6-anhydro-3-deoxy-D-*ribo*-hept-2-enarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +171.1$ (c 0.9, $CHCl_3$)
Source of chirality: D-mannose

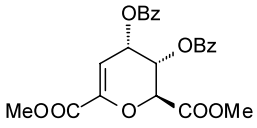


$C_{13}H_{16}O_9$
Dimethyl 4,5-di-*O*-acetyl-2,6-anhydro-3-D-*ribo*-hept-2-enarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +177.0$ (c 0.9, $CHCl_3$)
Source of chirality: D-mannose

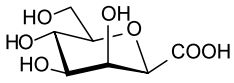


$C_{23}H_{20}O_9$
Dimethyl 2,6-anhydro-4,5-di-*O*-benzoyl-3-deoxy-D-*ribo*-hept-2-enarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = -2.4$ (c 1.0, MeOH)
Source of chirality: D-mannose



$C_7H_{12}O_7$
2,6-Anhydro-D-*glycero*-D-*galacto*-heptonic acid

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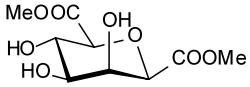
Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = -22.7$ (c 1.0, MeOH)
Source of chirality: D-mannose

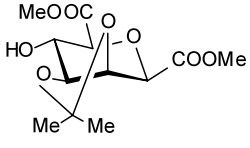


$C_9H_{14}O_8$
Dimethyl 2,6-anhydro-D-*glycero*-D-*galacto*-heptarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = -31.1$ (c 1.0, acetone)
Source of chirality: D-mannose

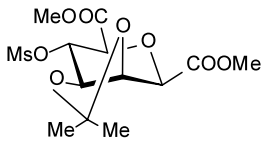


$C_{12}H_{18}O_8$
Dimethyl 2,6-anhydro-3,4-*O*-isopropylidene-D-*glycero*-D-*galacto*-heptarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = -17.9$ (c 1.0, $CHCl_3$)
Source of chirality: D-mannose

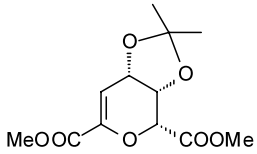


$C_{13}H_{20}O_{10}S$
Dimethyl 2,6-anhydro-3,4-*O*-isopropylidene-5-*O*-mesyl-D-*glycero*-D-*galacto*-heptarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +20.6$ (c 0.9, $CHCl_3$)
Source of chirality: D-mannose

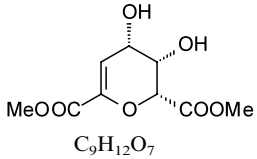


$C_{12}H_{16}O_7$
Dimethyl 2,6-anhydro-4,5-*O*-isopropylidene-3-deoxy-L-*lyxo*-hept-2-enarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +94.1$ (c 0.9, acetone)
Source of chirality: D-mannose

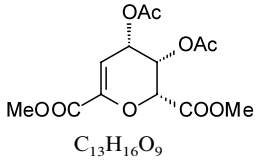


$C_9H_{12}O_7$
Dimethyl 2,6-anhydro-3-deoxy-L-*lyxo*-hept-2-enarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +53.6$ (c 1.0, $CHCl_3$)
Source of chirality: D-mannose

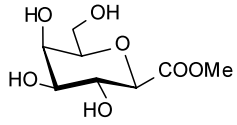


$C_{13}H_{16}O_9$
Dimethyl 4,5-di-*O*-acetyl-2,6-anhydro-3-deoxy-L-*lyxo*-hept-2-enarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = -32.0$ (c 0.2, H_2O)
Source of chirality: D-galactose

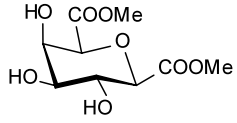


$C_8H_{14}O_7$
Methyl 2,6-anhydro-D-*glycero*-L-*manno*-heptanoate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +23.0$ (c 1.0, MeOH)
Source of chirality: D-galactose

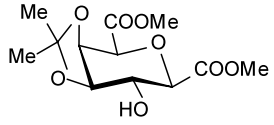


$C_9H_{14}O_8$
Dimethyl 2,6-anhydro-D-*glycero*-L-*manno*-heptarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +38.7$ (c 0.7, $CHCl_3$)
Source of chirality: D-galactose

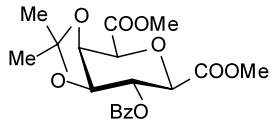


$C_{12}H_{18}O_8$
Dimethyl 2,6-anhydro-4,5-*O*-isopropylidene-D-*glycero*-L-*manno*-heptarate

Frieder W. Lichtenthaler,* Jürgen Klotz and Katsumi Nakamura

Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +6.3$ (c 0.8, $CHCl_3$)
Source of chirality: D-galactose



$C_{19}H_{22}O_9$
Dimethyl 2,6-anhydro-3-*O*-benzoyl-4,5-*O*-isopropylidene-D-*glycero*-L-*manno*-heptarate

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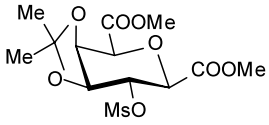
Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +17.2$ (c 1.1, $CHCl_3$)
Source of chirality: D-galactose



$C_{13}H_{20}O_{10}S$

Dimethyl 2,6-anhydro-4,5-*O*-isopropylidene-3-*O*-mesyl-D-*glycero*-L-*manno*-heptarate

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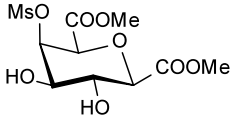
Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +89.0$ (c 0.6, $CHCl_3$)
Source of chirality: D-galactose



$C_{24}H_{24}O_{12}S$

Dimethyl 2,6-anhydro-3,4-di-*O*-benzoyl-5-*O*-mesyl-D-*glycero*-L-*manno*-heptarate

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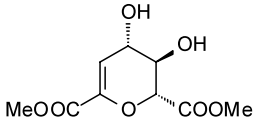
Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +30.0$ (c 1.0, acetone)
Source of chirality: D-galactose



$C_9H_{12}O_7$

Dimethyl 2,6-anhydro-3-deoxy-L-*arabino*-hept-2-enarate

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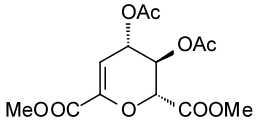
Tetrahedron: Asymmetry *14 (2003) 3973*

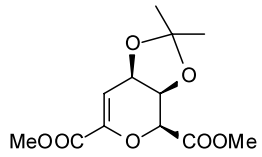
$[\alpha]_D^{20} = +72.0$ (c 0.6, $CHCl_3$)
Source of chirality: D-galactose



$C_{13}H_{16}O_9$

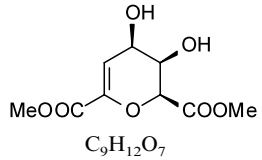
Dimethyl 4,5-di-*O*-acetyl-2,6-anhydro-3-deoxy-L-*arabino*-hept-2-enarate

$[\alpha]_D^{20} = -19.1$ (c 1.0, $CHCl_3$)
Source of chirality: D-galactose



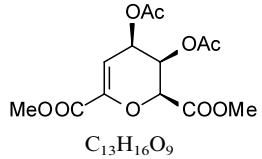
$C_{12}H_{16}O_7$
Dimethyl 2,6-anhydro-4,5-*O*-isopropylidene-3-deoxy-D-*lyxo*-hept-2-enarate

$[\alpha]_D^{20} = -97.3$ (c 0.6, acetone)
Source of chirality: D-galactose



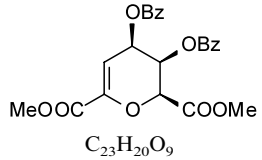
$C_9H_{12}O_7$
(−)-Dimethyl daucate

$[\alpha]_D^{20} = -54.1$ (c 0.6, $CDCl_3$)
Source of chirality: D-galactose



$C_{13}H_{16}O_9$
Dimethyl 4,5-di-*O*-acetyl-2,6-anhydro-3-deoxy-D-*lyxo*-hept-2-enarate

$[\alpha]_D^{20} = -88.9$ (c 0.5, $CHCl_3$)
Source of chirality: D-galactose



$C_{23}H_{20}O_9$
Dimethyl 2,6-anhydro-4,5-di-*O*-benzoyl-3-deoxy-D-*lyxo*-hept-2-enarate

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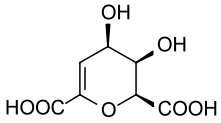
Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = -85.0$ (*c* 1.2, MeOH)
Source of chirality: D-galactose



$C_7H_8O_7$
(−)-Daucic acid

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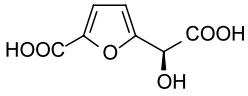
Tetrahedron: Asymmetry *14 (2003) 3973*

$[\alpha]_D^{20} = +79.6$ (*c* 0.8, MeOH)
Source of chirality: D-galactose



$C_7H_6O_6$
(+)-Osbeckic acid