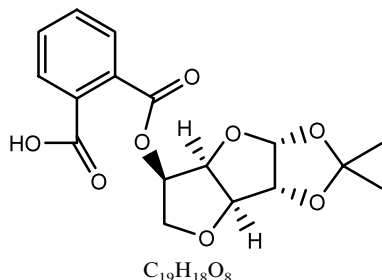


Hari Babu Mereyala\* and Pallavi Pola

*Tetrahedron: Asymmetry* 14 (2003) 2683



5-(1,2-*O*-Isopropylidene-3,6-anhydro- $\alpha$ -D-glucofuranosyl)-hydrogen phthalate

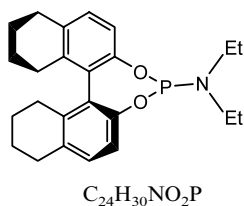
$[\alpha]_D^{25} = 15.0$  (*c* 2.0,  $CHCl_3$ )

Source of chirality: D-glucose

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

Xingshu Li, Xian Jia, Gui Lu, Terry T.-L. Au-Yeung,  
Kim-Hung Lam, Thomas W. H. Lo and Albert S. C. Chan\*

*Tetrahedron: Asymmetry* 14 (2003) 2687



*N,N*-Diethyl-(*S*)-5,5',6,6',7,7',8,8'-octahydro-1,1'-bi-2-naphthyl phosphoramidite

$^{31}P$  NMR ( $CDCl_3$ ) 144.8

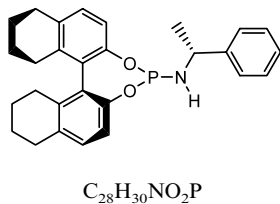
$[\alpha]_D^{20} = +219$  (*c* 0.55,  $CH_2Cl_2$ )

Source of chirality: commercial source

Absolute configuration: *S*

Xingshu Li, Xian Jia, Gui Lu, Terry T.-L. Au-Yeung,  
Kim-Hung Lam, Thomas W. H. Lo and Albert S. C. Chan\*

*Tetrahedron: Asymmetry* 14 (2003) 2687



(*R*)-*N*-1-Phenylethyl-(*S*)-5,5',6,6',7,7',8,8'-octahydro-1,1'-bi-2-naphthyl phosphoramidite

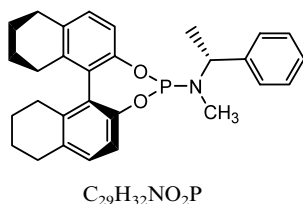
$^{31}P$  NMR ( $CDCl_3$ ) 145.8

$[\alpha]_D^{20} = +85$  (*c* 0.55,  $CHCl_3$ )

Source of chirality: commercial source

Xingshu Li, Xian Jia, Gui Lu, Terry T.-L. Au-Yeung,  
Kim-Hung Lam, Thomas W. H. Lo and Albert S. C. Chan\*

*Tetrahedron: Asymmetry* 14 (2003) 2687



(*R*)-*N*-Methyl-*N*-1-phenylethyl-(*S*)-5,5',6,6',7,7',8,8'-octahydro-1,1'-bi-2-naphthyl phosphoramidite

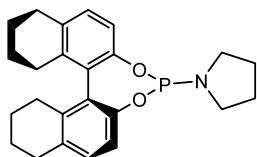
$^{31}P$  NMR ( $CDCl_3$ ) 142.9

$[\alpha]_D^{20} = +92$  (*c* 0.6,  $CH_2Cl_2$ )

Source of chirality: commercial source

Xingshu Li, Xian Jia, Gui Lu, Terry T.-L. Au-Yeung,  
Kim-Hung Lam, Thomas W. H. Lo and Albert S. C. Chan\*

*Tetrahedron: Asymmetry 14 (2003) 2687*



$C_{24}H_{28}NO_2P$

*N*-(1-Pyrrolidinyl)-(*S*)-5,5',6,6',7,7',8,8'-octahydro-1,1'-bi-2-naphthyl phosphoramidite

$^{31}P$  NMR ( $CDCl_3$ ) 144.4

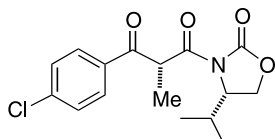
$[\alpha]_D^{20} = +238$  (*c* 0.43,  $CH_2Cl_2$ )

Source of chirality: commercial source

Absolute configuration: *S*

Virginia Flores-Morales, Mario Fernández-Zertuche\*  
and Mario Ordóñez\*

*Tetrahedron: Asymmetry 14 (2003) 2693*



$C_{16}H_{18}ClNO_4$

(2*R*)-3-[2-Methyl-1,3-dioxo-3-(*p*-chlorophenyl)propyl]-(*S*)-4-isopropyl-2-oxazolidinone

De >98%

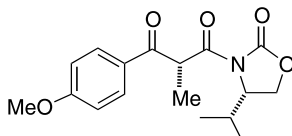
$[\alpha]_D = -84.6$  (*c* 2.89,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: (*R,S*)

Virginia Flores-Morales, Mario Fernández-Zertuche\*  
and Mario Ordóñez\*

*Tetrahedron: Asymmetry 14 (2003) 2693*



$C_{17}H_{21}NO_5$

(2*R*)-3-[2-Methyl-1,3-dioxo-3-(*p*-methoxyphenyl)propyl]-(*S*)-4-isopropyl-2-oxazolidinone

De >98%

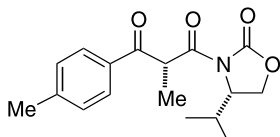
$[\alpha]_D = -91.0$  (*c* 5.55,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: (*R,S*)

Virginia Flores-Morales, Mario Fernández-Zertuche\*  
and Mario Ordóñez\*

*Tetrahedron: Asymmetry 14 (2003) 2693*



$C_{17}H_{21}NO_4$

(2*R*)-3-[2-Methyl-1,3-dioxo-3-(*p*-methylphenyl)propyl]-(*S*)-4-isopropyl-2-oxazolidinone

De >98%

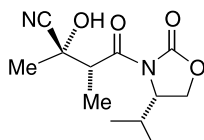
$[\alpha]_D = -89.2$  (*c* 2.51,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: (*R,S*)

Virginia Flores-Morales, Mario Fernández-Zertuche\*  
and Mario Ordóñez\*

*Tetrahedron: Asymmetry 14 (2003) 2693*



(2*R*,3*R*)-3-[2-Methyl-3-cyano-3-hydroxy-1-oxobutyl]-(*S*)-4-isopropyl-2-oxazolidinone

De >98%

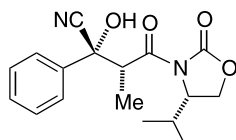
$[\alpha]_D = +62.5$  (*c* 1.24,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

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

Virginia Flores-Morales, Mario Fernández-Zertuche\*  
and Mario Ordóñez\*

*Tetrahedron: Asymmetry 14 (2003) 2693*



(2*R*,3*R*)-3-[2-Methyl-3-cyano-3-hydroxy-1-oxo-3-phenylpropyl]-(*S*)-4-isopropyl-2-oxazolidinone

De >98%

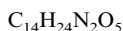
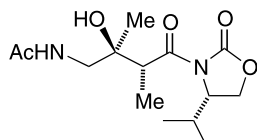
$[\alpha]_D = +35.5$  (*c* 2.45,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

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

Virginia Flores-Morales, Mario Fernández-Zertuche\*  
and Mario Ordóñez\*

*Tetrahedron: Asymmetry 14 (2003) 2693*



(2*R*,3*S*)-3-[4-Acetylamino-2,3-dimethyl-3-hydroxy-1-oxobutyl]-(*S*)-4-isopropyl-2-oxazolidinone

De >98%

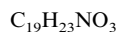
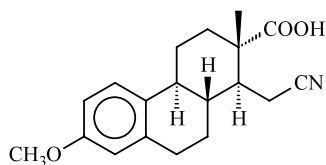
$[\alpha]_D = +19.7$  (*c* 3.22,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

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

Angéla Magyar, Bruno Schönecker,\* János Wölfling, Gyula Schneider,  
Wolfgang Günther and Helmar Görls

*Tetrahedron: Asymmetry 14 (2003) 2705*



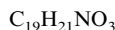
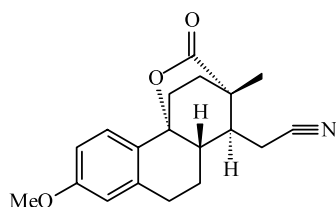
3-Methoxy-16,17-secoestra-1,3,5(10)-trien-16-nitrile-17-oic acid

$[\alpha]_D^{20} = +78$  (*c* 1,  $CHCl_3$ )

Source of chirality: D-estrone 3-methylether

Angéla Magyar, Bruno Schönecker,\* János Wölfling, Gyula Schneider,  
Wolfgang Günther and Helmar Görls

*Tetrahedron: Asymmetry 14 (2003) 2705*



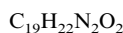
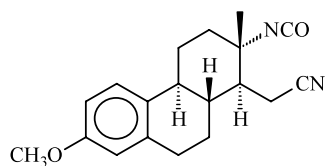
9 $\alpha$ -Hydroxy-3-methoxy-16,17-secoestra-1,3,5(10)-trien-16-nitrile-17-oic acid 9,17-lactone

$[\alpha]_D^{20} = +92$  (*c* 1,  $CHCl_3$ )

Source of chirality: D-estrone 3-methylether

Angéla Magyar, Bruno Schönecker,\* János Wölfling, Gyula Schneider,  
Wolfgang Günther and Helmar Görls

*Tetrahedron: Asymmetry 14 (2003) 2705*



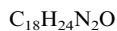
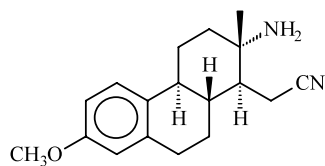
13 $\alpha$ -Isocyanato-3-methoxy-16,17-seco-17-nor-estra-1,3,5(10)-trien-16-nitrile

$[\alpha]_D^{20} = +246$  (*c* 1,  $CHCl_3$ )

Source of chirality: D-estrone 3-methylether

Angéla Magyar, Bruno Schönecker,\* János Wölfling, Gyula Schneider,  
Wolfgang Günther and Helmar Görls

*Tetrahedron: Asymmetry 14 (2003) 2705*



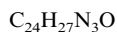
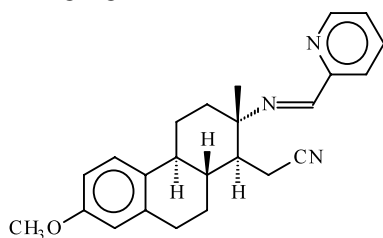
13 $\alpha$ -Amino-3-methoxy-16,17-seco-17-nor-estra-1,3,5(10)-trien-16-nitrile

$[\alpha]_D^{20} = +94$  (*c* 1,  $CHCl_3$ )

Source of chirality: D-estrone 3-methylether

Angéla Magyar, Bruno Schönecker,\* János Wölfling, Gyula Schneider,  
Wolfgang Günther and Helmar Görls

*Tetrahedron: Asymmetry 14 (2003) 2705*



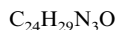
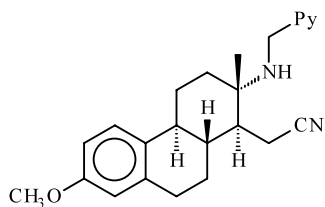
3-Methoxy-13 $\alpha$ -N[(2-pyridyl)methylene]amino-16,17-seco-17-nor-estra-1,3,5(10)-trien-16-nitrile

$[\alpha]_D^{20} = +157$  (*c* 1,  $CHCl_3$ )

Source of chirality: D-estrone 3-methylether

Angéla Magyar, Bruno Schönecker,\* János Wölfling, Gyula Schneider,  
Wolfgang Günther and Helmar Görls

*Tetrahedron: Asymmetry 14 (2003) 2705*



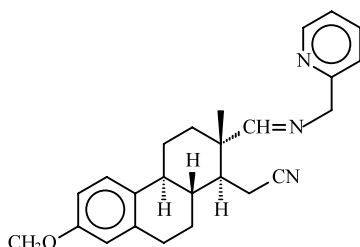
3-Methoxy-13 $\alpha$ -N[(2-pyridyl)methyl]amino-16,17-seco-17-nor-estra-1,3,5(10)-trien-16-nitrile

$[\alpha]_D^{20} = +59$  (*c* 1,  $CHCl_3$ )

Source of chirality: D-estrone 3-methylether

Angéla Magyar, Bruno Schönecker,\* János Wölfling, Gyula Schneider,  
Wolfgang Günther and Helmar Görls

*Tetrahedron: Asymmetry 14 (2003) 2705*



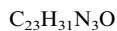
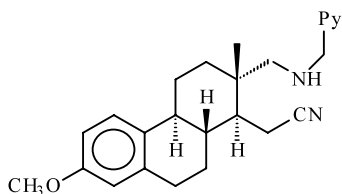
(17*E*)-3-Methoxy-17-*N*[(2-pyridyl)methyl]imino-16,17-secoestra-1,3,5(10)-trien-16-nitrile

$[\alpha]_D^{20} = +62$  (*c* 1,  $CHCl_3$ )

Source of chirality: D-estrone 3-methylether

Angéla Magyar, Bruno Schönecker,\* János Wölfling, Gyula Schneider,  
Wolfgang Günther and Helmar Görls

*Tetrahedron: Asymmetry 14 (2003) 2705*



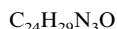
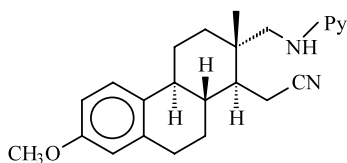
3-Methoxy-17-*N*[(2-pyridyl)methyl]amino-16,17-secoestra-1,3,5(10)-trien-16-nitrile

$[\alpha]_D^{20} = +39$  (*c* 1,  $CHCl_3$ )

Source of chirality: D-estrone 3-methylether

Angéla Magyar, Bruno Schönecker,\* János Wölfling, Gyula Schneider,  
Wolfgang Günther and Helmar Görls

*Tetrahedron: Asymmetry 14 (2003) 2705*



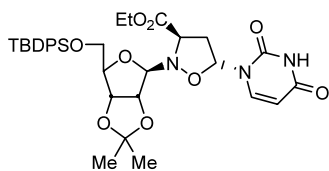
3-Methoxy-17-*N*(2-pyridyl)amino-16,17-secoestra-1,3,5(10)-trien-16-nitrile

$[\alpha]_D^{20} = +27$  (*c* 1,  $CHCl_3$ )

Source of chirality: D-estrone 3-methylether

Ugo Chiacchio,\* Antonino Corsaro, Daniela Iannazzo,  
Anna Piperno, Venerando Pistarà, Antonio Rescifina,  
Roberto Romeo, Giovanni Sindona and Giovanni Romeo\*

*Tetrahedron: Asymmetry 14 (2003) 2717*



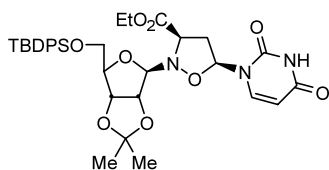
1-[(3*R*,5*R*)-2-(5-*O*-*tert*-Butyldiphenylsilyl)-2,3-*O*-isopropylidene- $\beta$ -D-ribofuranosyl]-3-ethoxycarbonyl-1,2-isoxazolidin-5-yl]-  
1*H*-pyrimidine-2,4-dione

$[\alpha]_D^{25} = +15.3$  (*c* 2.01,  $CHCl_3$ )

Source of chirality: D-(–)-ribose

Ugo Chiacchio,\* Antonino Corsaro, Daniela Iannazzo,  
Anna Piperno, Venerando Pistarà, Antonio Rescifina,  
Roberto Romeo, Giovanni Sindona and Giovanni Romeo\*

*Tetrahedron: Asymmetry 14 (2003) 2717*



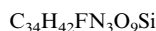
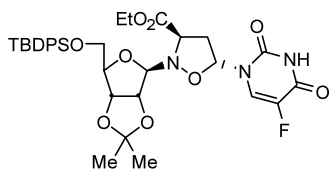
1-[(3*R*,5*S*)-2-(5-*O*-*tert*-Butyldiphenylsilyl)-2,3-*O*-isopropylidene- $\beta$ -D-ribofuranosyl]-3-ethoxycarbonyl-1,2-isoxazolidin-5-yl]-  
1*H*-pyrimidine-2,4-dione

$[\alpha]_D^{25} = -55.0$  (*c* 1.50,  $CHCl_3$ )

Source of chirality: D-(–)-ribose

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Anna Piperno, Venerando Pistarà, Antonio Rescifina,  
Roberto Romeo, Giovanni Sindona and Giovanni Romeo\*

*Tetrahedron: Asymmetry 14 (2003) 2717*



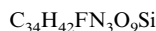
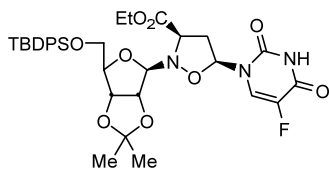
5-Fluoro-1-[(3*R*,5*R*)-2-(5-*O*-*tert*-butyldiphenylsilyl)-2,3-*O*-isopropylidene- $\beta$ -D-ribofuranosyl]-3-ethoxycarbonyl-1,2-isoxazolidin-5-yl]-  
1*H*-pyrimidine-2,4-dione

$[\alpha]_D^{25} = -31.2$  (*c* 0.08;  $CHCl_3$ )

Source of chirality: D-(–)-ribose

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Anna Piperno, Venerando Pistarà, Antonio Rescifina,  
Roberto Romeo, Giovanni Sindona and Giovanni Romeo\*

*Tetrahedron: Asymmetry 14 (2003) 2717*



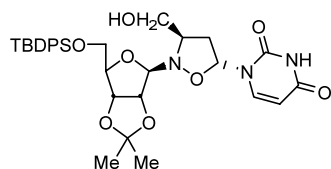
5-Fluoro-1-[(3*R*,5*S*)-2-(5-*O*-*tert*-butyldiphenylsilyl)-2,3-*O*-isopropylidene- $\beta$ -D-ribofuranosyl]-3-ethoxycarbonyl-1,2-isoxazolidin-5-yl]-  
1*H*-pyrimidine-2,4-dione

$[\alpha]_D^{25} = -6.8$  (*c* 0.22;  $CHCl_3$ )

Source of chirality: D-(–)-ribose

Ugo Chiacchio,\* Antonino Corsaro, Daniela Iannazzo,  
Anna Piperno, Venerando Pistarà, Antonio Rescifina,  
Roberto Romeo, Giovanni Sindona and Giovanni Romeo\*

*Tetrahedron: Asymmetry 14 (2003) 2717*



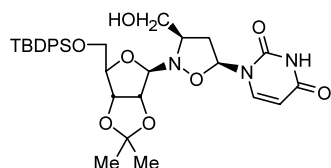
1-[(3*R*,5*R*)-2-(5-*O*-*tert*-Butyldiphenylsilyl)-2,3-*O*-isopropylidene- $\beta$ -D-ribofuranosyl]-3-hydroxymethyl-1,2-isoxazolidin-5-yl]-*1H*-pyrimidine-2,4-dione

$[\alpha]_D^{25} = -59.6$  (*c* 0.86;  $CHCl_3$ )

Source of chirality: D-(–)-ribose

Ugo Chiacchio,\* Antonino Corsaro, Daniela Iannazzo,  
Anna Piperno, Venerando Pistarà, Antonio Rescifina,  
Roberto Romeo, Giovanni Sindona and Giovanni Romeo\*

*Tetrahedron: Asymmetry 14 (2003) 2717*



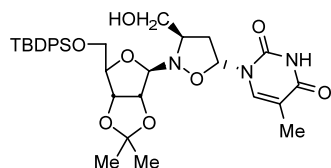
1-[(3*R*,5*S*)-2-(5-*O*-*tert*-Butyldiphenylsilyl)-2,3-*O*-isopropylidene- $\beta$ -D-ribofuranosyl]-3-hydroxymethyl-1,2-isoxazolidin-5-yl]-*1H*-pyrimidine-2,4-dione

$[\alpha]_D^{25} = +12.8$  (*c* 1.08;  $CHCl_3$ )

Source of chirality: D-(–)-ribose

Ugo Chiacchio,\* Antonino Corsaro, Daniela Iannazzo,  
Anna Piperno, Venerando Pistarà, Antonio Rescifina,  
Roberto Romeo, Giovanni Sindona and Giovanni Romeo\*

*Tetrahedron: Asymmetry 14 (2003) 2717*



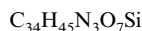
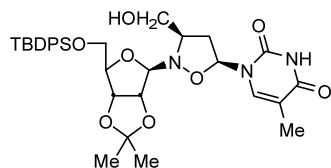
1-[(3*R*,5*R*)-2-(5-*O*-*tert*-Butyldiphenylsilyl)-2,3-*O*-isopropylidene- $\beta$ -D-ribofuranosyl]-3-hydroxymethyl-1,2-isoxazolidin-5-yl]-5-methyl-*1H*-pyrimidine-2,4-dione

$[\alpha]_D^{25} = -42.9$  (*c* 0.35;  $CHCl_3$ )

Source of chirality: D-(–)-ribose

Ugo Chiacchio,\* Antonino Corsaro, Daniela Iannazzo,  
Anna Piperno, Venerando Pistarà, Antonio Rescifina,  
Roberto Romeo, Giovanni Sindona and Giovanni Romeo\*

*Tetrahedron: Asymmetry 14 (2003) 2717*



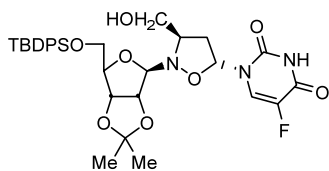
1-[(3*R*,5*S*)-2-(5-*O*-*tert*-Butyldiphenylsilyl)-2,3-*O*-isopropylidene- $\beta$ -D-ribofuranosyl]-3-hydroxymethyl-1,2-isoxazolidin-5-yl]-5-methyl-*1H*-pyrimidine-2,4-dione

$[\alpha]_D^{25} = +5.1$  (*c* 0.31;  $CHCl_3$ )

Source of chirality: D-(–)-ribose

Ugo Chiacchio,\* Antonino Corsaro, Daniela Iannazzo,  
Anna Piperno, Venerando Pistarà, Antonio Rescifina,  
Roberto Romeo, Giovanni Sindona and Giovanni Romeo\*

*Tetrahedron: Asymmetry 14 (2003) 2717*



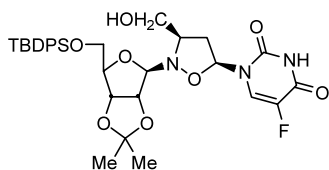
5-Fluoro-1-[(3*R*,5*R*)-2-(5-*O*-*tert*-butyldiphenylsilyl)-2,3-*O*-isopropylidene- $\beta$ -D-ribofuranosyl]-3-hydroxymethyl-1,2-isoxazolidin-5-yl]-pyrimidine-2,4(1*H*,3*H*)-dione

$[\alpha]_D^{25} = -40.8$  (*c* 0.30;  $CHCl_3$ )

Source of chirality: D-(–)-ribose

Ugo Chiacchio,\* Antonino Corsaro, Daniela Iannazzo,  
Anna Piperno, Venerando Pistarà, Antonio Rescifina,  
Roberto Romeo, Giovanni Sindona and Giovanni Romeo\*

*Tetrahedron: Asymmetry 14 (2003) 2717*



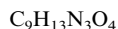
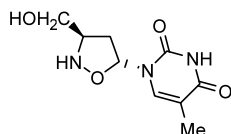
5-Fluoro-1-[(3*R*,5*S*)-2-(5-*O*-*tert*-butyldiphenylsilyl)-2,3-*O*-isopropylidene- $\beta$ -D-ribofuranosyl]-3-hydroxymethyl-1,2-isoxazolidin-5-yl]-pyrimidine-2,4(1*H*,3*H*)-dione

$[\alpha]_D^{25} = +15.0$  (*c* 0.27;  $CHCl_3$ )

Source of chirality: D-(–)-ribose

Ugo Chiacchio,\* Antonino Corsaro, Daniela Iannazzo,  
Anna Piperno, Venerando Pistarà, Antonio Rescifina,  
Roberto Romeo, Giovanni Sindona and Giovanni Romeo\*

*Tetrahedron: Asymmetry 14 (2003) 2717*



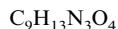
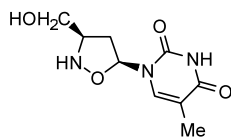
1-[(3*R*,5*R*)-3-(Hydroxymethyl)isoxazolidin-5-yl]-5-methylpyrimidine-2,4(1*H*,3*H*)-dione

$[\alpha]_D^{25} = -102.4$  (*c* 0.12;  $H_2O$ )

Source of chirality: D-(–)-ribose

Ugo Chiacchio,\* Antonino Corsaro, Daniela Iannazzo,  
Anna Piperno, Venerando Pistarà, Antonio Rescifina,  
Roberto Romeo, Giovanni Sindona and Giovanni Romeo\*

*Tetrahedron: Asymmetry 14 (2003) 2717*



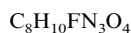
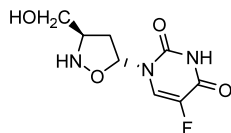
1-[(3*R*,5*S*)-3-(Hydroxymethyl)isoxazolidin-5-yl]-5-methylpyrimidine-2,4(1*H*,3*H*)-dione

$[\alpha]_D^{25} = +108.3$  (*c* 0.06;  $H_2O$ )

Source of chirality: D-(–)-ribose

Ugo Chiacchio,\* Antonino Corsaro, Daniela Iannazzo,  
Anna Piperno, Venerando Pistarà, Antonio Rescifina,  
Roberto Romeo, Giovanni Sindona and Giovanni Romeo\*

*Tetrahedron: Asymmetry 14 (2003) 2717*



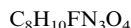
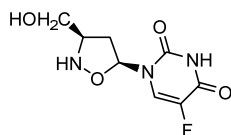
5-Fluoro-1-[(3*R*,5*R*)-3-(hydroxymethyl)isoxazolidin-5-yl]pyrimidine-2,4(1*H*,3*H*)-dione

$[\alpha]_D^{25} = -89.7$  (*c* 0.15;  $H_2O$ )

Source of chirality: D-(–)-ribose

Ugo Chiacchio,\* Antonino Corsaro, Daniela Iannazzo,  
Anna Piperno, Venerando Pistarà, Antonio Rescifina,  
Roberto Romeo, Giovanni Sindona and Giovanni Romeo\*

*Tetrahedron: Asymmetry 14 (2003) 2717*



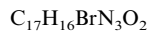
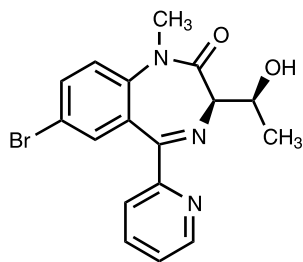
5-Fluoro-1-[(3*R*,5*R*)-3-(hydroxymethyl)isoxazolidin-5-yl]pyrimidine-2,4(1*H*,3*H*)-dione

$[\alpha]_D^{25} = +57.9$  (*c* 0.16;  $H_2O$ )

Source of chirality: D-(–)-ribose

Maja Majerić Elenkov, Zdenko Hameršak and Vitomir Šunjić\*

*Tetrahedron: Asymmetry 14 (2003) 2725*



(3*R*,1'*S*)-7-Bromo-3-(1'-hydroxyethyl)-1-methyl-5-(2'-pyridyl)-2,3-dihydro-1*H*-1,4-benzodiazepin-2-one

E.e. = 100%

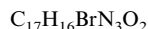
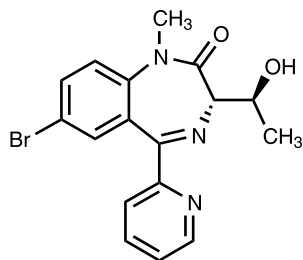
$[\alpha]_D^{20} = -214$  (*c* 1.0,  $CH_2Cl_2$ )

Source of chirality: enzymatic resolution

Absolute configuration: 3*R*,1'*S*

Maja Majerić Elenkov, Zdenko Hameršak and Vitomir Šunjić\*

*Tetrahedron: Asymmetry 14 (2003) 2725*



(3*S*,1'*S*)-7-Bromo-3-(1'-hydroxyethyl)-1-methyl-5-(2'-pyridyl)-2,3-dihydro-1*H*-1,4-benzodiazepin-2-one

E.e. >99%

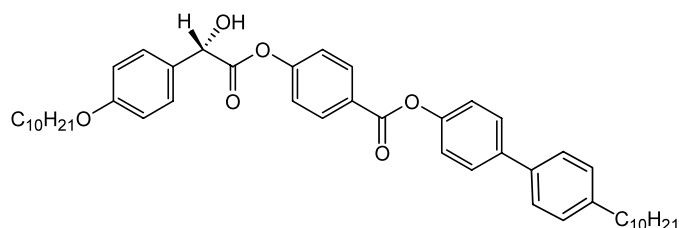
$[\alpha]_D^{20} = +243$  (*c* 1.0,  $CH_2Cl_2$ )

Source of chirality: enzymatic resolution

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

Andreja Lesac, Sanja Narančić, Maja Šepelj, Duncan W. Bruce and Vitomir Šunjić\*

*Tetrahedron: Asymmetry 14 (2003) 2731*



$C_{47}H_{60}O_6$

(*S*)-[(4'-Decylbiphenoxycarbonyl)phenyl-4-yl]-2-(4-decyloxyphenyl)-2-hydroxyacetate

Ee >99%

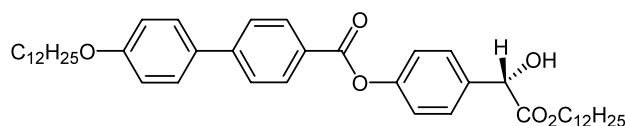
$[\alpha]_D^{25} = +65$  (*c* 0.67,  $CHCl_3$ )

Source of chirality: resolution via diastereomeric salt

Absolute configuration: *S*

Andreja Lesac, Sanja Narančić, Maja Šepelj, Duncan W. Bruce and Vitomir Šunjić\*

*Tetrahedron: Asymmetry 14 (2003) 2731*



$C_{45}H_{64}O_6$

(*S*)-Dodecyl-2-(4'-dodecyloxybiphenyl-4-carboxy)phenyl-2-hydroxyacetate

Ee = 99%

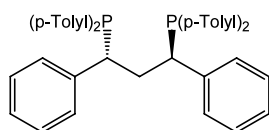
$[\alpha]_D^{25} = +31$  (*c* 1.0,  $CH_2Cl_2$ )

Source of chirality: resolution via diastereomeric salt

Absolute configuration: *S*

Natalia V. Dubrovina, Vitali I. Tararov, Axel Monsees, Renat Kadyrov, Christine Fischer and Armin Börner\*

*Tetrahedron: Asymmetry 14 (2003) 2739*



$C_{43}H_{42}P_2$

(*R,R*)-Bis[(di-*p*-tolyl)phosphino]-1,3-diphenylpropane

De >99%, ee >99%

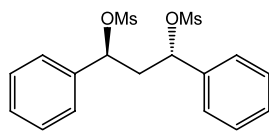
$[\alpha]_D^{23} = +207$  (*c* 0.8,  $CHCl_3$ )

Source of chirality: asymmetric hydrogenation

Absolute configuration: *R,R*

Natalia V. Dubrovina, Vitali I. Tararov, Axel Monsees, Renat Kadyrov, Christine Fischer and Armin Börner\*

*Tetrahedron: Asymmetry 14 (2003) 2739*



$C_{17}H_{21}O_6S_2$

(*S,S*)-Methansulfonyloxy-1,3-diphenylpropane-1,3-diol

De >99%, ee >99%

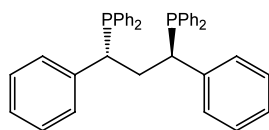
$[\alpha]_D^{23} = -112$  (*c* 0.8,  $CHCl_3$ )

Source of chirality: asymmetric hydrogenation

Absolute configuration: *S,S*

Natalia V. Dubrovina, Vitali I. Tararov, Axel Monsees,  
Renat Kadyrov, Christine Fischer and Armin Börner\*

*Tetrahedron: Asymmetry 14 (2003) 2739*



(*R,R*)-Bis(diphenylphosphino)-1,3-diphenylpropane

De >99%, ee >99%

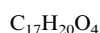
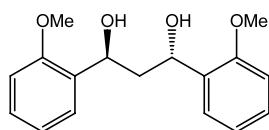
$[\alpha]_D^{23} = +190$  (*c* 0.8,  $CHCl_3$ )

Source of chirality: asymmetric hydrogenation

Absolute configuration: *R,R*

Natalia V. Dubrovina, Vitali I. Tararov, Axel Monsees,  
Renat Kadyrov, Christine Fischer and Armin Börner\*

*Tetrahedron: Asymmetry 14 (2003) 2739*



(-)-Bis(2-methoxyphenyl)propane-1,3-diol

De >99%, ee >99%

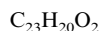
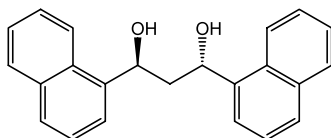
$[\alpha]_D^{23} = -133$  (*c* 0.6, EtOH)

Source of chirality: asymmetric hydrogenation

Absolute configuration: not determined

Natalia V. Dubrovina, Vitali I. Tararov, Axel Monsees,  
Renat Kadyrov, Christine Fischer and Armin Börner\*

*Tetrahedron: Asymmetry 14 (2003) 2739*



(-)-1,3-Di(1-naphthyl)propane-1,3-diol

De >99%, ee >99%

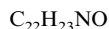
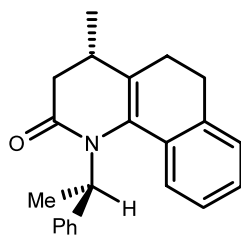
$[\alpha]_D^{23} = -373$  (*c* 0.6, EtOH)

Source of chirality: asymmetric hydrogenation

Absolute configuration: not determined

Nicolas Monnier-Benoit, Ivan Jabin,\* Mohamed Selkti, Alain Tomas  
and Gilbert Revial\*

*Tetrahedron: Asymmetry 14 (2003) 2747*



4-(*S*)-Methyl-1-(1-(*R*)-phenyl-ethyl)-3,4,5,6-tetrahydro-1*H*-benzo[*h*]quinolin-2-one

E.e. = 100%

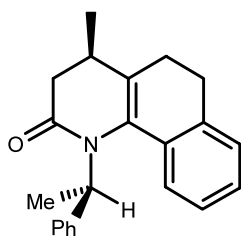
$[\alpha]_D^{20} = +54.8$  (*c* 0.95,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration 1'*R*,4*S*

Nicolas Monnier-Benoit, Ivan Jabin,\* Mohamed Selkti, Alain Tomas and Gilbert Revial\*

*Tetrahedron: Asymmetry 14 (2003) 2747*



$C_{22}H_{23}NO$

4-(*R*)-Methyl-1-(1-(*R*)-phenyl-ethyl)-3,4,5,6-tetrahydro-1*H*-benzo[*h*]quinolin-2-one

E.e. = 100%

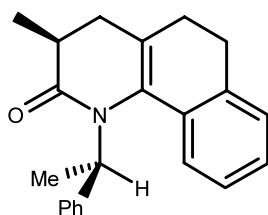
$[\alpha]_D^{20} = -66.4$  (*c* 0.47,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: 1'*R*,4*R*

Nicolas Monnier-Benoit, Ivan Jabin,\* Mohamed Selkti, Alain Tomas and Gilbert Revial\*

*Tetrahedron: Asymmetry 14 (2003) 2747*



$C_{22}H_{23}NO$

3-(*S*)-Methyl-1-(1-(*R*)-phenyl-ethyl)-3,4,5,6-tetrahydro-1*H*-benzo[*h*]quinolin-2-one

E.e. = 100%

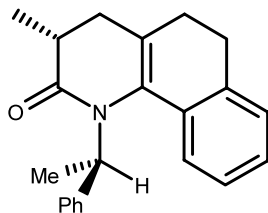
$[\alpha]_D^{20} = +8.4$  (*c* 3.07,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: 1'*R*,3*S*

Nicolas Monnier-Benoit, Ivan Jabin,\* Mohamed Selkti, Alain Tomas and Gilbert Revial\*

*Tetrahedron: Asymmetry 14 (2003) 2747*



$C_{22}H_{23}NO$

3-(*R*)-Methyl-1-(1-(*R*)-phenyl-ethyl)-3,4,5,6-tetrahydro-1*H*-benzo[*h*]quinolin-2-one

E.e. = 100%

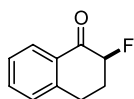
$[\alpha]_D^{20} = -79.4$  (*c* 1.36,  $CHCl_3$ )

Source of chirality: asymmetric synthesis

Absolute configuration: 1'*R*,3*R*

Markus A. Baur, Abdelkhalek Riahi, Françoise Hénin\* and Jacques Muzart

*Tetrahedron: Asymmetry 14 (2003) 2755*



$C_{10}H_9FO$

2-Fluoro-1-tetralone

Ee<sub>max</sub> = 65%

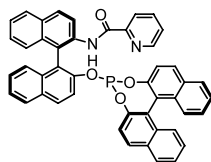
$[\alpha]_D^{20} = -35.5$  (*c* 0.42, dioxane); ee<sub>HPLC</sub> = 59%

Source of chirality: catalytic amounts of quinine

Absolute configuration: *S*

Yuanchun Hu, Xinmiao Liang, Zhuo Zheng and Xinquan Hu\*

*Tetrahedron: Asymmetry 14 (2003) 2771*



$C_{46}H_{29}N_2O_4P$   
(*R,R*)-(-)-**1b**

Ee >99%

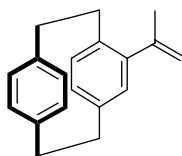
$[\alpha]_D^{26} = -173.7$  (c 0.5, THF)

Source of chirality: synthesized

Absolute configuration: *R,R*

Lucio Minuti,\* Aldo Taticchi,\* Daniela Lanari, Assunta Marrocchi and Eszter Gacs-Baitz

*Tetrahedron: Asymmetry 14 (2003) 2775*



$C_{19}H_{20}$   
(*S*)-(+)-4-(2-Propenyl)[2.2]paracyclophane

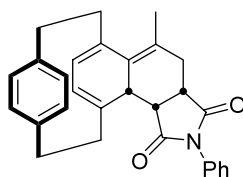
E.e. >99%

$[\alpha]_D^{25} = +167$  (c 0.88,  $CHCl_3$ )

Source of chirality: (*S*)-(+)-4-acetyl[2.2]-paracyclophane

Lucio Minuti,\* Aldo Taticchi,\* Daniela Lanari, Assunta Marrocchi and Eszter Gacs-Baitz

*Tetrahedron: Asymmetry 14 (2003) 2775*



$C_{29}H_{27}NO_2$   
(*S,3aS,15aR,15bR*)-(+)-5-Methyl-2-phenyl-3a,4,7,8,13,14,15a,15b-octahydro-1*H*-6,15-ethanediylidene-9,12-ethenocyclododeca[*e*]-isoindole-1,3-dione

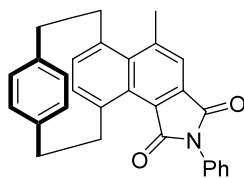
E.e. >99%

$[\alpha]_D^{25} = +367$  (c 1.22,  $CHCl_3$ )

Source of chirality: (*S*)-(+)-4-(2-propenyl)[2.2]-paracyclophane

Lucio Minuti,\* Aldo Taticchi,\* Daniela Lanari, Assunta Marrocchi and Eszter Gacs-Baitz

*Tetrahedron: Asymmetry 14 (2003) 2775*



$C_{29}H_{23}NO_2$   
(*R*)-(+)-5-Methyl-2-phenyl-7,8,13,14-tetrahydro-1*H*-6,15-ethanediylidene-9,12-ethenocyclododeca[*e*]isoindole-1,3-dione

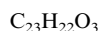
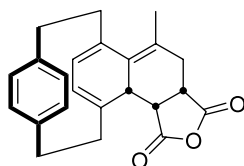
E.e. >99%

$[\alpha]_D^{25} = +536$  (c 1.05,  $CHCl_3$ )

Source of chirality: (*S*)-(+)-4-(2-propenyl)[2.2]-paracyclophane

Lucio Minuti,\* Aldo Taticchi,\* Daniela Lanari, Assunta Marrocchi and Eszter Gacs-Baitz

*Tetrahedron: Asymmetry 14 (2003) 2775*



(*S*,3*aS*,15*aR*,15*bR*)-(+)-5-Methyl-3*a*,5*a*,7,8,13,14,15*a*,15*b*-octahydro-6,15-ethanediylidene-9,12-ethenocyclododeca[3,4]benzo[1,2-*c*]-furan-1,3-dione

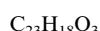
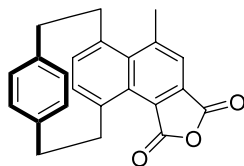
E.e. >99%

$[\alpha]_D^{25} = +109$  (*c* 0.37,  $CHCl_3$ )

Source of chirality: (*S*)-(+)-4-(2-propenyl)[2.2]-paracyclophane

Lucio Minuti,\* Aldo Taticchi,\* Daniela Lanari, Assunta Marrocchi and Eszter Gacs-Baitz

*Tetrahedron: Asymmetry 14 (2003) 2775*



(*R*)-(+)-5-Methyl-7,8,13,14-tetrahydro-6,15-ethanediylidene-9,12-ethenocyclododeca[3,4]benzo[1,2-*c*]furan-1,3-dione

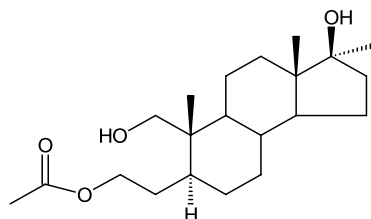
E.e. >99%

$[\alpha]_D^{25} = +364$  (*c* 0.57,  $CHCl_3$ )

Source of chirality: (*S*)-(+)-4-(2-propenyl)[2.2]-paracyclophane

Patrizia Ferraboschi,\* Diego Colombo and Paolo Prestileo

*Tetrahedron: Asymmetry 14 (2003) 2781*



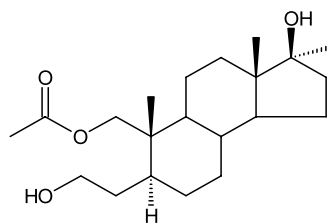
17α-Methyl-1,3-seco-2-nor-5α-androstane-1,3,17β-triol, 3-acetate

Source of chirality: 3β-hydroxy-5α-androstan-17-one as starting material

$[\alpha]_D^{25} = -37.7$  (*c* 1, chloroform)

Patrizia Ferraboschi,\* Diego Colombo and Paolo Prestileo

*Tetrahedron: Asymmetry 14 (2003) 2781*



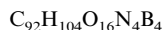
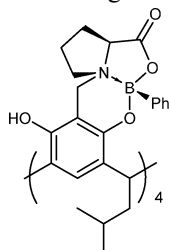
17α-Methyl-1,3-seco-2-nor-5α-androstane-1,3,17β-triol, 1-acetate

Source of chirality: 3β-hydroxy-5α-androstan-17-one as starting material

$[\alpha]_D^{25} = -26.2$  (*c* 1, chloroform)

Waldemar Iwanek,\* Mariusz Urbaniak, Barbara Gawdzik and Volker Schurig

*Tetrahedron: Asymmetry 14 (2003) 2787*



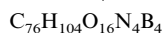
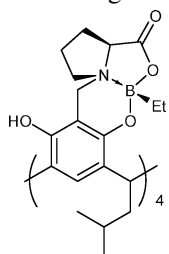
Oxazaborolo-benzoxazaborininone derivatives of resorcinarene from L-proline and phenylboronic acid

$$[\alpha]_D^{25} = -16.9 \text{ (c 1.0, CH}_2\text{Cl}_2\text{)}$$

Absolute configuration:  $S, S_N, S_B$

Waldemar Iwanek,\* Mariusz Urbaniak, Barbara Gawdzik and Volker Schurig

*Tetrahedron: Asymmetry 14 (2003) 2787*



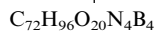
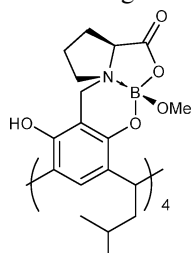
Oxazaborolo-benzoxazaborininone derivatives of resorcinarene from L-proline and triethylborane

$$[\alpha]_D^{25} = -11.5 \text{ (c 1.01, CH}_2\text{Cl}_2\text{)}$$

Absolute configuration:  $S, S_N, S_B$

Waldemar Iwanek,\* Mariusz Urbaniak, Barbara Gawdzik and Volker Schurig

*Tetrahedron: Asymmetry 14 (2003) 2787*



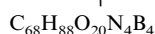
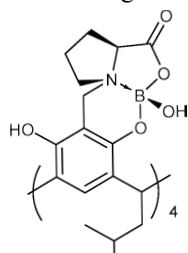
Oxazaborolo-benzoxazaborininone derivatives of resorcinarene from L-proline and trimethoxyboronic ester

$$[\alpha]_D^{25} = +10.8 \text{ (c 1.02, CH}_2\text{Cl}_2\text{)}$$

Absolute configuration:  $S, S_N, R_B$

Waldemar Iwanek,\* Mariusz Urbaniak, Barbara Gawdzik and Volker Schurig

*Tetrahedron: Asymmetry 14 (2003) 2787*



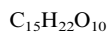
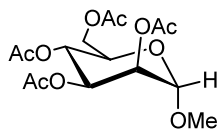
Oxazaborolo-benzoxazaborininone derivative of resorcinarene from L-proline and boronic acid

$$[\alpha]_D^{25} = +41.0 \text{ (c 05, MeOH)}$$

Absolute configuration:  $S, S_N, R_B$

Chaxiraxi Nóbrega and Jesús T. Vázquez\*

*Tetrahedron: Asymmetry 14 (2003) 2793*



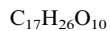
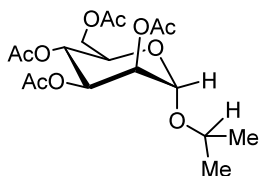
Methyl 2,3,4,6-tetrakis-*O*-acetyl- $\alpha$ -D-mannopyranoside

$[\alpha]_D^{25} = +53.0$  (*c* 0.2,  $CHCl_3$ )

Source of chirality: D-(+)-mannose

Chaxiraxi Nóbrega and Jesús T. Vázquez\*

*Tetrahedron: Asymmetry 14 (2003) 2793*



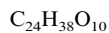
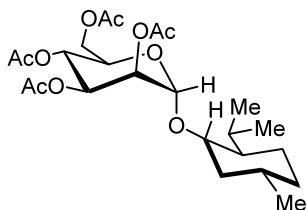
Isopropyl 2,3,4,6-tetrakis-*O*-acetyl- $\alpha$ -D-mannopyranoside

$[\alpha]_D^{25} = +57.5$  (*c* 0.2,  $CHCl_3$ )

Source of chirality: D-(+)-mannose

Chaxiraxi Nóbrega and Jesús T. Vázquez\*

*Tetrahedron: Asymmetry 14 (2003) 2793*



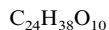
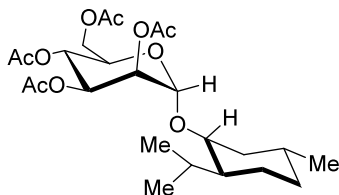
(1*S*,2*R*,5*S*)-(-)-Menthyl 2,3,4,6-tetrakis-*O*-acetyl- $\alpha$ -D-mannopyranoside

$[\alpha]_D^{25} = +85.0$  (*c* 0.2,  $CHCl_3$ )

Source of chirality: D-(+)-mannose and (-)-menthol

Chaxiraxi Nóbrega and Jesús T. Vázquez\*

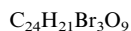
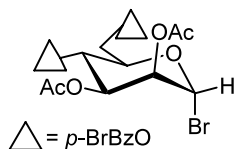
*Tetrahedron: Asymmetry 14 (2003) 2793*



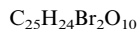
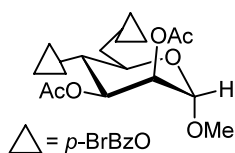
(1*R*,2*S*,5*R*)-(-)-Menthyl 2,3,4,6-tetrakis-*O*-acetyl- $\alpha$ -D-mannopyranoside

$[\alpha]_D^{25} = +12.0$  (*c* 0.1,  $CHCl_3$ )

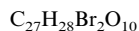
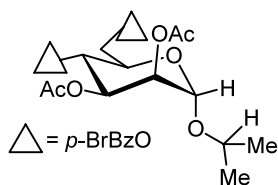
Source of chirality: D-(+)-mannose and (-)-menthol

2,3-Bis-*O*-acetyl-4,6-bis-*O*-(*p*-bromobenzoyl)- $\alpha$ -D-mannopyranosyl bromide
 $[\alpha]_{\text{D}}^{25} = +116.5$  (*c* 0.2,  $\text{CHCl}_3$ )
CD ( $\text{CH}_3\text{CN}$ )  $\lambda_{\text{ext}}$  ( $\Delta\epsilon$ ) 250 (+17.7), 232 nm (−5.7)

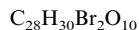
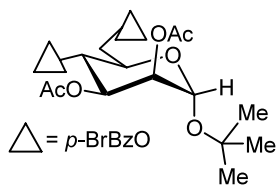
Source of chirality: D-(+)-mannose

Methyl 2,3-bis-*O*-acetyl-4,6-bis-*O*-(*p*-bromobenzoyl)- $\alpha$ -D-mannopyranoside
 $[\alpha]_{\text{D}}^{25} = +37.0$  (*c* 0.2,  $\text{CHCl}_3$ )
CD ( $\text{CH}_3\text{CN}$ )  $\lambda_{\text{ext}}$  ( $\Delta\epsilon$ ) 250 (+16.2), 232 nm (−4.8)

Source of chirality: D-(+)-mannose

Isopropyl 2,3-bis-*O*-acetyl-4,6-bis-*O*-(*p*-bromobenzoyl)- $\alpha$ -D-mannopyranoside
 $[\alpha]_{\text{D}}^{25} = +41.0$  (*c* 0.2,  $\text{CHCl}_3$ )
CD ( $\text{CH}_3\text{CN}$ )  $\lambda_{\text{ext}}$  ( $\Delta\epsilon$ ) 250 (+14.1), 232 nm (−4.6)

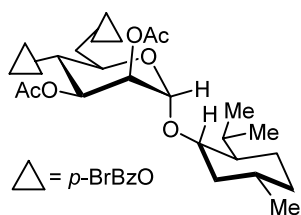
Source of chirality: D-(+)-mannose

*tert*-Butyl 2,3-bis-*O*-acetyl-4,6-bis-*O*-(*p*-bromobenzoyl)- $\alpha$ -D-mannopyranoside
 $[\alpha]_{\text{D}}^{25} = +42.0$  (*c* 0.1,  $\text{CHCl}_3$ )
CD ( $\text{CH}_3\text{CN}$ )  $\lambda_{\text{ext}}$  ( $\Delta\epsilon$ ) 250 (+6.4), 232 nm (−3.0)

Source of chirality: D-(+)-mannose

Chaxiraxi Nóbrega and Jesús T. Vázquez\*

*Tetrahedron: Asymmetry 14 (2003) 2793*



(1*S*,2*R*,5*S*)-(-)-Menthyl 2,3-bis-*O*-acetyl-4,6-bis-*O*-(*p*-bromobenzoyl)- $\alpha$ -D-mannopyranoside

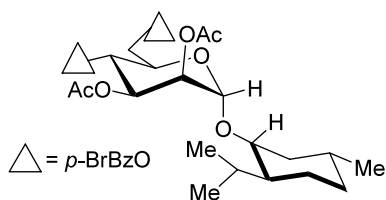
$[\alpha]_{\text{D}}^{25} = +72.0$  (*c* 0.2,  $\text{CHCl}_3$ )

CD ( $\text{CH}_3\text{CN}$ )  $\lambda_{\text{ext}}$  ( $\Delta\epsilon$ ) 250 (+13.6), 232 nm (−5.1)

Source of chirality: D-(+)-mannose and (−)-menthol

Chaxiraxi Nóbrega and Jesús T. Vázquez\*

*Tetrahedron: Asymmetry 14 (2003) 2793*



(1*R*,2*S*,5*R*)-(-)-Menthyl 2,3-bis-*O*-acetyl-4,6-bis-*O*-(*p*-bromobenzoyl)- $\alpha$ -D-mannopyranoside

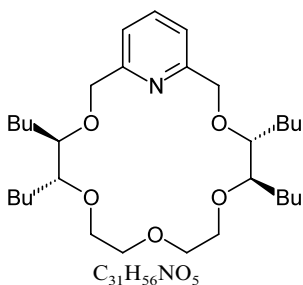
$[\alpha]_{\text{D}}^{25} = +15.0$  (*c* 0.1,  $\text{CHCl}_3$ )

CD ( $\text{CH}_3\text{CN}$ )  $\lambda_{\text{ext}}$  ( $\Delta\epsilon$ ) 250 (10.8), 232 nm (−4.4)

Source of chirality: D-(+)-mannose and (−)-menthol

János Gerencsér, Nikolett Báthori, Mátyás Czugler,  
Péter Huszthy\* and Mihály Nógrádi

*Tetrahedron: Asymmetry 14 (2003) 2803*



4,5,13,14-Tetrabutyl-3,6,9,12,15-pentaoxa-21-azabicyclo-[15.3.1]heneicosa-1(21),17,19-triene

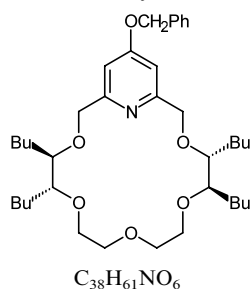
$[\alpha]_{\text{D}}^{23} = +8.9$  (*c* 0.62,  $\text{CH}_2\text{Cl}_2$ )

Source of chirality: (5*R*,6*R*)-dcca-5,6-diol

Absolute configuration: 4*R*,5*R*,13*R*,14*R*

János Gerencsér, Nikolett Báthori, Mátyás Czugler,  
Péter Huszthy\* and Mihály Nógrádi

*Tetrahedron: Asymmetry 14 (2003) 2803*



19-Benzyloxy-4,5,13,14-tetrabutyl-3,6,9,12,15-pentaoxa-21-azabicyclo-[15.3.1]heneicosa-1(21),17,19-triene

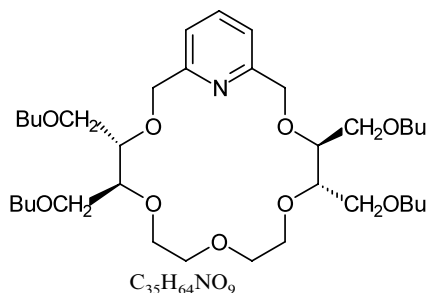
$[\alpha]_{\text{D}}^{25} = +35.1$  (*c* 0.52,  $\text{CH}_2\text{Cl}_2$ )

Source of chirality: (5*R*,6*R*)-dcca-5,6-diol

Absolute configuration: 4*R*,5*R*,13*R*,14*R*

János Gerencsér, Nikolett Báthori, Mátyás Czugler,  
Péter Huszthy\* and Mihály Nógrádi

*Tetrahedron: Asymmetry 14 (2003) 2803*



4,5,13,14-Tetrabutoxymethyl-3,6,9,12,15-pentaoxa-21-azabicyclo-[15.3.1]heneicosa-1(21),17,19-triene

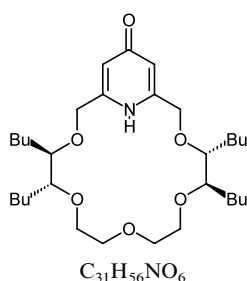
$[\alpha]_D^{25} = +7.3$  (*c* 0.45,  $CH_2Cl_2$ )

Source of chirality: diethyl (*R,R*)-tartarate

Absolute configuration: 4*S*,5*S*,13*S*,14*S*

János Gerencsér, Nikolett Báthori, Mátyás Czugler,  
Péter Huszthy\* and Mihály Nógrádi

*Tetrahedron: Asymmetry 14 (2003) 2803*



4,5,13,14-Tetrabutyl-3,6,9,12,15-pentaoxa-21-azabicyclo-[15.3.1]heneicosa-17,20-diene-19(21*H*)-one

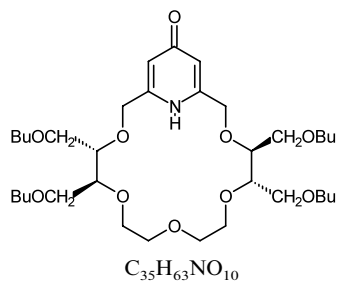
$[\alpha]_D^{25} = +1.6$  (*c* 5.6,  $CH_2Cl_2$ )

Source of chirality: (5*R*,6*R*)-decan-5,6-diol

Absolute configuration: 4*R*,5*R*,13*R*,14*R*

János Gerencsér, Nikolett Báthori, Mátyás Czugler,  
Péter Huszthy\* and Mihály Nógrádi

*Tetrahedron: Asymmetry 14 (2003) 2803*



4,5,13,14-Tetrabutoxymethyl-3,6,9,12,15-pentaoxa-21-azabicyclo-[15.3.1]heneicosa-17,20-diene-19(21*H*)-one

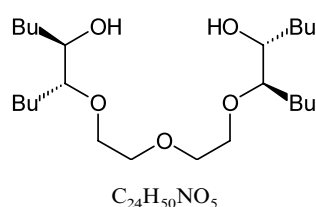
$[\alpha]_D^{25} = +18.3$  (*c* 1.58,  $CH_2Cl_2$ )

Source of chirality: diethyl (*R,R*)-tartarate

Absolute configuration: 4*S*,5*S*,13*S*,14*S*

János Gerencsér, Nikolett Báthori, Mátyás Czugler,  
Péter Huszthy\* and Mihály Nógrádi

*Tetrahedron: Asymmetry 14 (2003) 2803*



6,14-Dibutyl-7,10,13-trioxanonadecane-5,15-diol

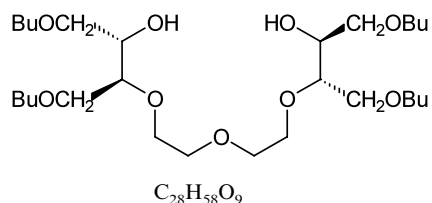
$[\alpha]_D^{25} = +11.0$  (*c* 0.36,  $CH_2Cl_2$ )

Source of chirality: (*R,R*)-5,6-decandiol

Absolute configuration: 5*R*,6*R*,14*R*,15*R*

János Gerencsér, Nikolett Báthori, Mátyás Czugler,  
Péter Huszthy\* and Mihály Nógrádi

*Tetrahedron: Asymmetry 14 (2003) 2803*



*S*-8,16-Bis(butoxymethyl)-5,9,12,15,19-pentaoxatricosan-7,17-diol

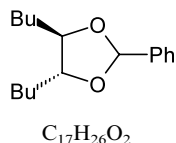
$[\alpha]_D^{23} = +22.2$  (*c* 1.0,  $CHCl_3$ )

Source of chirality: diethyl (*R,R*)-tartrate

Absolute configuration: 7*S*,8*S*,16*S*,17*S*

János Gerencsér, Nikolett Báthori, Mátyás Czugler,  
Péter Huszthy\* and Mihály Nógrádi

*Tetrahedron: Asymmetry 14 (2003) 2803*



2-Phenyl-4,5-dibutyl-1,3-dioxolane

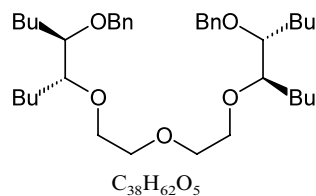
$[\alpha]_D^{23} = +16.7$  ( $CHCl_3$ , *c* 1.14)

Source of chirality: (*R,R*)-5,6-decandiol

Absolute configuration: *R,R*

János Gerencsér, Nikolett Báthori, Mátyás Czugler,  
Péter Huszthy\* and Mihály Nógrádi

*Tetrahedron: Asymmetry 14 (2003) 2803*



5,15-Dibenzoyloxy-6,14-dibutyl-7,10,13-trioxanonadecane

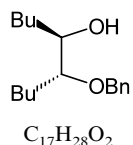
$[\alpha]_D^{23} = +27.4$  (*c* 0.54,  $CH_2Cl_2$ )

Source of chirality: (*R,R*)-5,6-decandiol

Absolute configuration: 5*R*,6*R*,14*R*,15*R*

János Gerencsér, Nikolett Báthori, Mátyás Czugler,  
Péter Huszthy\* and Mihály Nógrádi

*Tetrahedron: Asymmetry 14 (2003) 2803*



6-Benzyloxy-decan-5-ol

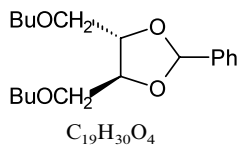
$[\alpha]_D^{25} = +22.3$  (*c* 0.87,  $CH_2Cl_2$ )

Source of chirality: (*R,R*)-5,6-decandiol

Absolute configuration: *R,R*

János Gerencsér, Nikoletta Báthori, Mátyás Czugler,  
Péter Huszthy\* and Mihály Nógrádi

*Tetrahedron: Asymmetry 14 (2003) 2803*



2-Phenyl-4,5-bis(butoxymethyl)-1,3-dioxolane

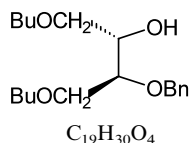
$[\alpha]_D^{25} = +0.7$  (c 2.40,  $CH_2Cl_2$ )

Source of chirality: diethyl (*R,R*)-tartrate

Absolute configuration: *S,S*

János Gerencsér, Nikoletta Báthori, Mátyás Czugler,  
Péter Huszthy\* and Mihály Nógrádi

*Tetrahedron: Asymmetry 14 (2003) 2803*



1,4-*O,O'*-Dibutyl-2-*O*-benzylthreitol

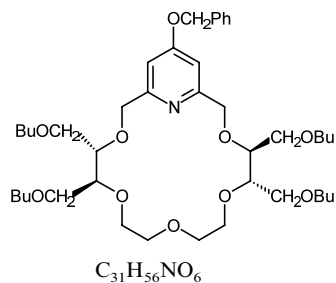
$[\alpha]_D^{25} = +12.5$  (c 1.59, MeOH)

Source of chirality: diethyl (*R,R*)-tartarate

Absolute configuration: *S,S*

János Gerencsér, Nikoletta Báthori, Mátyás Czugler,  
Péter Huszthy\* and Mihály Nógrádi

*Tetrahedron: Asymmetry 14 (2003) 2803*



19-Benzyloxy-tetrabutoxymethyl-3,6,9,12,15-pentaoxa-21-azabicyclo-[15.3.1]heneicosa-1(20),17(21),18-triene

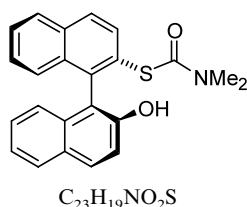
$[\alpha]_D^{25} = +20.5$  (c 1.9,  $CH_2Cl_2$ )

Source of chirality: diethyl (*R,R*)-tartarate

Absolute configuration: 4*S*,5*S*,13*S*,14*S*

Victoria Albrow, Kallolmay Biswas, Andrew Crane, Nicholas Chaplin,  
Tim Easun, Serafino Gladiali, Barry Lygo and Simon Woodward\*

*Tetrahedron: Asymmetry 14 (2003) 2813*



(-)-(*S<sub>a</sub>*)-2-(*N,N*-Dimethylcarbamoylthio)-2'-hydroxy-1,1'-binaphthyl

E.e. = 80%

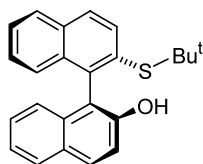
$[\alpha]_D^{20} = -277$  (c 0.52,  $CHCl_3$ )

Source of chirality: (*S<sub>a</sub>*)-BINOL

Absolute configuration: *S<sub>a</sub>*

Victoria Albrow, Kallolmay Biswas, Andrew Crane, Nicholas Chaplin,  
Tim Easun, Serafino Gladiali, Barry Lygo and Simon Woodward\*

*Tetrahedron: Asymmetry 14 (2003) 2813*



$C_{24}H_{22}OS$

(-)-(S<sub>a</sub>)-2-S-t-Butyl-2'-hydroxymercapto-1,1'-binaphthyl

E.e. = 80%

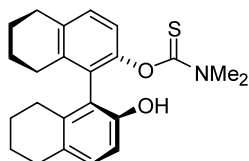
$[\alpha]_D^{20} = -32$  (c 0.47, CHCl<sub>3</sub>)

Source of chirality: (S<sub>a</sub>)-BINOL

Absolute configuration: S<sub>a</sub>

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Tim Easun, Serafino Gladiali, Barry Lygo and Simon Woodward\*

*Tetrahedron: Asymmetry 14 (2003) 2813*



$C_{23}H_{27}NO_2S$

(-)-(S<sub>a</sub>)-2-(N,N-Dimethylthiocarbamoyloxy)-2'-hydroxy-5,5',6,6',7,7',8,8'-octahydro-1,1'-binaphthyl

E.e. >98%

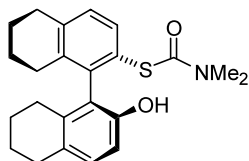
$[\alpha]_D^{20} = -208$  (c 0.53, CHCl<sub>3</sub>)

Source of chirality: (S<sub>a</sub>)-BINOL

Absolute configuration: S<sub>a</sub>

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*Tetrahedron: Asymmetry 14 (2003) 2813*



$C_{23}H_{27}NO_2S$

(-)-(S<sub>a</sub>)-2-(N,N-Dimethylthiocarbamoylthio)-2'-hydroxy-5,5',6,6',7,7',8,8'-octahydro-1,1'-binaphthyl

E.e. = 97%

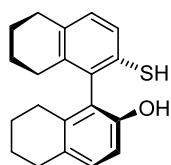
$[\alpha]_D^{20} = -155$  (c 0.93, CHCl<sub>3</sub>)

Source of chirality: (S<sub>a</sub>)-BINOL

Absolute configuration: S<sub>a</sub>

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$C_{20}H_{22}OS$

(-)-(S<sub>a</sub>)-2-Hydroxy-2'-mercapto-5,5',6,6',7,7',8,8'-octahydro-1,1'-binaphthyl

E.e. = 97%

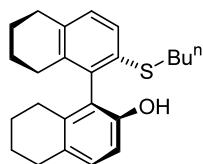
$[\alpha]_D^{20} = -73$  (c 0.56, CHCl<sub>3</sub>)

Source of chirality: (S<sub>a</sub>)-BINOL

Absolute configuration: S<sub>a</sub>

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$C_{24}H_{30}OS$

(-)-(S<sub>a</sub>)-2-S-n-Butyl-2'-hydroxymercapto-5,5',6,6',7,7',8,8'-octahydro-1,1'-binaphthyl

E.e. = 97%

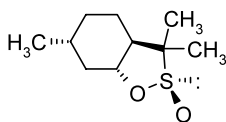
$[\alpha]_D^{20} = -30$  (c 0.57, CHCl<sub>3</sub>)

Source of chirality: (S<sub>a</sub>)-BINOL

Absolute configuration: S<sub>a</sub>

Robert Kawęcki\*

*Tetrahedron: Asymmetry 14 (2003) 2827*



$C_{10}H_{18}O_2S$

(1R,4R,6R,S<sub>S</sub>)-4,9,9-Trimethyl-7-oxa-8-thiabicyclo[4.3.0]nonane-8-oxide

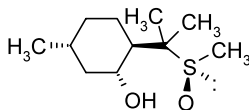
$[\alpha]_D +173.6$  (c 1.05, CHCl<sub>3</sub>)

Source of chirality: (R)-(+)-pulegone

Absolute configuration: (1R,4R,6R,S<sub>S</sub>)

Robert Kawęcki\*

*Tetrahedron: Asymmetry 14 (2003) 2827*



$C_{11}H_{22}O_2S$

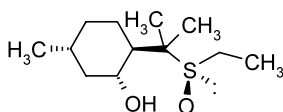
(1R,2R,5R,R<sub>S</sub>)-2-[1-(Methylsulfinyl)-1-methylethyl]-5-methylcyclohexanol

$[\alpha]_D +40.7$  (c 1.42, CH<sub>2</sub>Cl<sub>2</sub>)

Absolute configuration: (1R,2R,5R,R<sub>S</sub>)

Robert Kawęcki\*

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$C_{12}H_{24}O_2S$

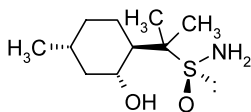
(1R,2R,5R,R<sub>S</sub>)-2-[1-(Ethylsulfinyl)-1-methylethyl]-5-methylcyclohexanol

$[\alpha]_D +99.5$  (c 1.76, CH<sub>2</sub>Cl<sub>2</sub>)

Absolute configuration: (1R,2R,5R,R<sub>S</sub>)

Robert Kawęcki\*

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$C_{10}H_{21}NO_2S$

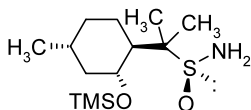
(1*R*,2*R*,4*R*,*S*<sub>s</sub>)-2-(2-Hydroxy-4-methylcyclohexyl)propane-2-sulfinamide

$[\alpha]_D +5.0$  (*c* 1.41,  $CH_2Cl_2$ )

Absolute configuration: (1*R*,2*R*,4*R*,*S*<sub>s</sub>)

Robert Kawęcki\*

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$C_{13}H_{29}NO_2SSi$

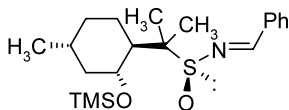
(1*R*,2*R*,4*R*,*S*<sub>s</sub>)-2-(2-trimethylsilyloxy-4-methylcyclohexyl)propane-2-sulfinamide

$[\alpha]_D -13.2$  (*c* 1.78,  $CH_2Cl_2$ )

Absolute configuration: (1*R*,2*R*,4*R*,*S*<sub>s</sub>)

Robert Kawęcki\*

*Tetrahedron: Asymmetry 14 (2003) 2827*



$C_{20}H_{33}NO_2SSi$

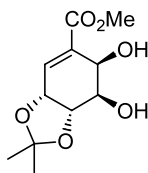
(1*R*,2*R*,4*R*,*S*<sub>s</sub>)-*N*-[(1*E*)-Benzylidene]-2-(2-trimethylsilyloxy-4-methylcyclohexyl)propane-2-sulfinamide

$[\alpha]_D +87.1$  (*c* 1.15,  $CH_2Cl_2$ )

Absolute configuration: (1*R*,2*R*,4*R*,*S*<sub>s</sub>)

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*Tetrahedron: Asymmetry 14 (2003) 2833*



$C_{11}H_{16}O_6$

Methyl (3*R*,4*R*,5*R*,6*R*)-5,6-dihydroxy-3,4-isopropylidenedioxycyclohex-1-ene-1-carboxylate

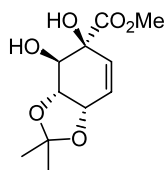
$[\alpha]_D = -31.3$  (*c* 0.80,  $CHCl_3$ )

Source of chirality: (–)-shikimic acid acid

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

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*Tetrahedron: Asymmetry 14 (2003) 2833*



$C_{11}H_{16}O_6$

Methyl (1*S*,2*R*,3*S*,4*S*)-1,2-dihydroxy-3,4-isopropylidenedioxycyclohex-5-ene-1-carboxylate

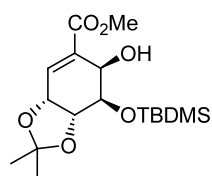
$[\alpha]_D = 82.7$  ( $c$  1.05,  $CHCl_3$ )

Source of chirality: (–)-shikimic acid acid

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

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*Tetrahedron: Asymmetry 14 (2003) 2833*



$C_{17}H_{10}O_6Si$

Methyl (3*R*,4*R*,5*R*,6*R*)-5-*tert*-butyltrimethylsilyloxy-6-hydroxy-3,4-isopropylidenedioxycyclohex-1-ene-1-carboxylate

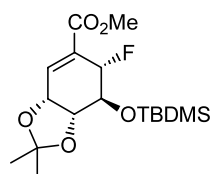
$[\alpha]_D = -79.3$  ( $c$  0.92,  $CHCl_3$ )

Source of chirality: (–)-shikimic acid acid

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

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*Tetrahedron: Asymmetry 14 (2003) 2833*



$C_{17}H_{29}FO_5Si$

Methyl (3*R*,4*R*,5*S*,6*S*)-5-*tert*-butyltrimethylsilyloxy-6-fluoro-3,4-isopropylidenedioxycyclohex-1-ene-1-carboxylate

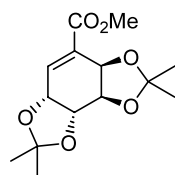
$[\alpha]_D = +41.1$  ( $c$  1.22,  $CHCl_3$ )

Source of chirality: (–)-shikimic acid acid

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

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*Tetrahedron: Asymmetry 14 (2003) 2833*



$C_{14}H_{20}O_6$

Methyl (3*R*,4*R*,5*R*,6*R*)-3,4:5,6-bis(isopropylidenedioxy)cyclohex-1-ene-1-carboxylate

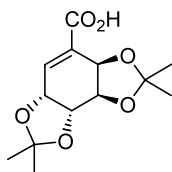
$[\alpha]_D = +41.9$  ( $c$  0.86,  $CHCl_3$ )

Source of chirality: (–)-shikimic acid acid

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

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$C_{13}H_{18}O_6$

(3*R*,4*R*,5*R*,6*R*)-3,4:5,6-Bis(isopropylidenedioxy)cyclohex-1-ene-1-carboxylic acid

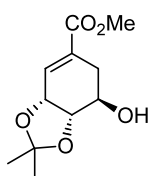
$[\alpha]_D^{25} = +61.7$  (*c* 1.5,  $CHCl_3$ )

Source of chirality: (–)-shikimic acid

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

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$C_{11}H_{16}O_5$

Methyl (3*R*,4*S*,5*R*)-3,4-isopropylidenedioxy-5-(trifluoromethanesulfonyloxy)cyclohex-1-ene-1-carboxylate

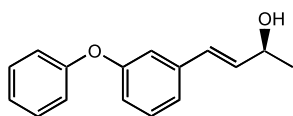
$[\alpha]_D^{25} = -71.4$  (*c* 0.64,  $CHCl_3$ )

Source of chirality: (–)-shikimic acid

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

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*Tetrahedron: Asymmetry 14 (2003) 2839*



$C_{16}H_{16}O_2$

(*S*)-(E)-4-(3-Phenoxyphenyl)-3-butene-2-ol

E.e. >99% [by chiral HPLC]

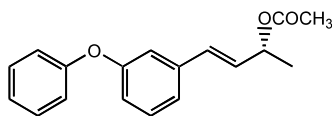
$[\alpha]_D^{25} = -10.4$  (*c* 2,  $CHCl_3$ )

Source of chirality: enzymatic acetylation

Absolute configuration: *S*

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*Tetrahedron: Asymmetry 14 (2003) 2839*



$C_{18}H_{18}O_3$

(*R*)-(E)-2-Acetoxy-4-(3-phenoxyphenyl)-3-butene

E.e. = 97% [by chiral HPLC]

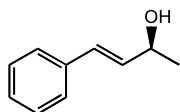
$[\alpha]_D^{25} = +91.7$  (*c* 1.6,  $CHCl_3$ )

Source of chirality: enzymatic acetylation

Absolute configuration: *R*

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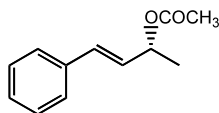


$C_{10}H_{12}O$   
(*S*)-(E)-4-Phenyl-3-butene-2-ol

E.e. = 96% [by chiral HPLC]  
 $[\alpha]_D^{25} = -29.6$  (*c* 2.0,  $CHCl_3$ )  
Source of chirality: enzymatic acetylation  
Absolute configuration: *S*

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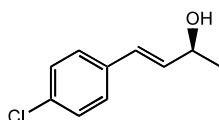


$C_{12}H_{14}O_2$   
(*R*)-(E)-2-Acetoxy-4-phenyl-3-butene

E.e. = 98% [by chiral HPLC]  
 $[\alpha]_D^{25} = +138$  (*c* 1.1,  $CHCl_3$ )  
Source of chirality: enzymatic acetylation  
Absolute configuration: *R*

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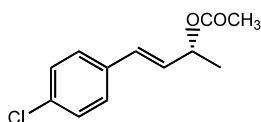


$C_{10}H_{11}ClO$   
(*S*)-(E)-4-Chlorophenyl-3-butene-2-ol

E.e. >99% [by chiral HPLC]  
 $[\alpha]_D^{25} = -18.8$  (*c* 1.3,  $CHCl_3$ )  
Source of chirality: enzymatic acetylation  
Absolute configuration: *S*

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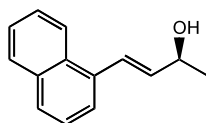


$C_{12}H_{13}ClO_2$   
(*R*)-(E)-2-Acetoxy-4-chlorophenyl-3-butene

E.e. = 78% [by chiral HPLC]  
 $[\alpha]_D^{25} = +103$  (*c* 2.0,  $CHCl_3$ )  
Source of chirality: enzymatic acetylation  
Absolute configuration: *R*

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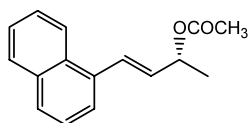


$C_{14}H_{14}O$   
(*S*)-(E)-4-(1-Naphthyl)-3-butene-2-ol

E.e. = 98% [by chiral HPLC]  
 $[\alpha]_D^{25} = -10.4$  (*c* 2.0,  $CHCl_3$ )  
Source of chirality: enzymatic acetylation  
Absolute configuration: *S*

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and V. Sravanthi

*Tetrahedron: Asymmetry 14 (2003) 2839*

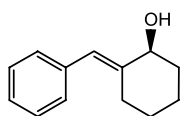


$C_{16}H_{16}O_2$   
(*R*)-(E)-2-Acetoxy-4-(1-naphthyl)-3-butene

E.e. = 91% [by chiral HPLC]  
 $[\alpha]_D^{25} = +63.3$  (*c* 1.4,  $CHCl_3$ )  
Source of chirality: enzymatic acetylation  
Absolute configuration: *R*

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and V. Sravanthi

*Tetrahedron: Asymmetry 14 (2003) 2839*

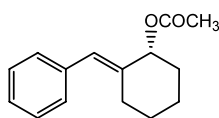


$C_{13}H_{16}O$   
(*S*)-2-[1-Phenyl-(E)-methylidene]-1-cyclohexanol

E.e. = 92% [by chiral HPLC]  
 $[\alpha]_D^{25} = -12.9$  (*c* 1.0,  $CHCl_3$ )  
Source of chirality: enzymatic acetylation  
Absolute configuration: *S*

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and V. Sravanthi

*Tetrahedron: Asymmetry 14 (2003) 2839*



$C_{15}H_{18}O_2$   
(*R*)-2-[1-Phenyl-(E)-methylidene]-1-cyclohexyl acetate

E.e. >99% [by chiral HPLC]  
 $[\alpha]_D^{25} = +36.0$  (*c* 0.8,  $CHCl_3$ )  
Source of chirality: enzymatic acetylation  
Absolute configuration: *R*