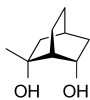


Stereochemistry abstracts

Annika Friberg, Ian Sarvary, Ola F. Wendt, Torbjörn Frejd*

Tetrahedron: Asymmetry 19 (2008) 1765

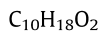
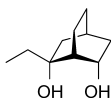


(1R,2R,4S,6S)-2-Methyl-bicyclo[2.2.2]octane-2,6-diol

Ee = >99%
 $[\alpha]_D = +39$ (c 0.50, tBuOMe)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (1R,2R,4S,6S)

Annika Friberg, Ian Sarvary, Ola F. Wendt, Torbjörn Frejd*

Tetrahedron: Asymmetry 19 (2008) 1765

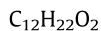
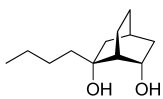


(1R,2R,4S,6S)-2-Ethyl-bicyclo[2.2.2]octane-2,6-diol

Ee = >99%
 $[\alpha]_D = +45.2$ (c 1.00, tBuOMe)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (1R,2R,4S,6S)

Annika Friberg, Ian Sarvary, Ola F. Wendt, Torbjörn Frejd*

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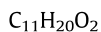
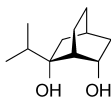


(1R,2R,4S,6S)-2-Butyl-bicyclo[2.2.2]octane-2,6-diol

Ee = >99%
 $[\alpha]_D = +40$ (c 0.60, tBuOMe)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (1R,2R,4S,6S)

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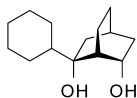


(1R,2S,4S,6S)-2-Isopropyl-bicyclo[2.2.2]octane-2,6-diol

Ee = >99%
 $[\alpha]_D = +63.7$ (c 1.00, tBuOMe)
 Source of chirality: asymmetric synthesis
 Absolute configuration: (1R,2S,4S,6S)

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$C_{14}H_{24}O_2$

(1R,2S,4S,6S)-2-Cyclohexyl-bicyclo[2.2.2]octane-2,6-diol

$E_e = >99\%$

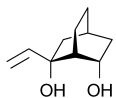
$[\alpha]_D = +64$ (c 0.70, tBuOMe)

Source of chirality: asymmetric synthesis

Absolute configuration: (1R,2S,4S,6S)

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$C_{10}H_{16}O_2$

(1R,2R,4S,6S)-2-Vinylbicyclo[2.2.2]octane-2,6-diol

$E_e = >99\%$

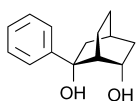
$[\alpha]_D = +76$ (c 0.56, tBuOMe)

Source of chirality: asymmetric synthesis

Absolute configuration: (1R,2R,4S,6S)

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$C_{14}H_{18}O_2$

(1R,2R,4S,6S)-2-Phenyl-bicyclo[2.2.2]octane-2,6-diol

$E_e = >99\%$

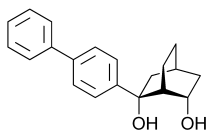
$[\alpha]_D = +69.9$ (c 1.36, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: (1R,2R,4S,6S)

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$C_{20}H_{22}O_2$

(1R,2R,4S,6S)-2-(4-Biphenyl)-bicyclo[2.2.2]octane-2,6-diol

$E_e = >99\%$

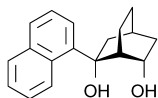
$[\alpha]_D = +42$ (c 0.70, tBuOMe)

Source of chirality: asymmetric synthesis

Absolute configuration: (1R,2R,4S,6S)

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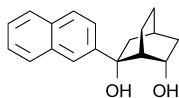
$C_{18}H_{20}O_2$

(1R,2R,4S,6S)-2-(Naphthalen-1-yl)-bicyclo[2.2.2]octane-2,6-diol

Ee = >99%
[α]_D = +25.6 (c 2.30, tBuOMe)
Source of chirality: asymmetric synthesis
Absolute configuration: (1R,2R,4S,6S)

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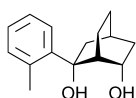
$C_{18}H_{20}O_2$

(1R,2R,4S,6S)-2-(Naphthalen-2-yl)-bicyclo[2.2.2]octane-2,6-diol

Ee = >99%
[α]_D = +50 (c 0.50, tBuOMe)
Source of chirality: asymmetric synthesis
Absolute configuration: (1R,2R,4S,6S)

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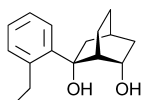
$C_{15}H_{20}O_2$

(1R,2R,4S,6S)-2-o-Tolylbicyclo[2.2.2]octane-2,6-diol

Ee = >99%
[α]_D = +41.0 (c 2.30, tBuOMe)
Source of chirality: asymmetric synthesis
Absolute configuration: (1R,2R,4S,6S)

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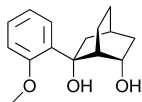
$C_{16}H_{22}O_2$

(1R,2R,4S,6S)-2-(2-Ethylphenyl)bicyclo[2.2.2]octane-2,6-diol

Ee = >99%
[α]_D = +34.1 (c 2.60, tBuOMe)
Source of chirality: asymmetric synthesis
Absolute configuration: (1R,2R,4S,6S)

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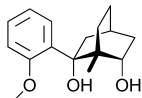
$C_{15}H_{20}O_3$

(1R,2R,4S,6S)-2-(2-Methoxyphenyl)-bicyclo[2.2.2]octane-2,6-diol

Ee = >99%
[α]_D = +50.0 (c 0.70, CHCl₃)
Source of chirality: asymmetric synthesis
Absolute configuration: (1R,2R,4S,6S)

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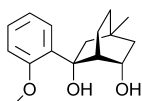
$C_{16}H_{22}O_3$

(1R,2R,4S,6S)-2-(2-Methoxyphenyl)-1-methylbicyclo[2.2.2]octane-2,6-diol

Ee = >99%
[α]_D = +62.3 (c 0.69, MeOH)
Source of chirality: asymmetric synthesis
Absolute configuration: (1R,2R,4S,6S)

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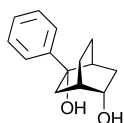
$C_{16}H_{22}O_3$

(1R,2R,4S,6S)-2-(2-Methoxyphenyl)-4-methylbicyclo[2.2.2]octane-2,6-diol

Ee = >99%
[α]_D = +45.2 (c 0.51, MeOH)
Source of chirality: asymmetric synthesis
Absolute configuration: (1R,2R,4S,6S)

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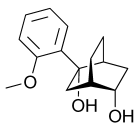
$C_{14}H_{18}O_2$

(1S,2S,4S,5S)-2-Phenylbicyclo[2.2.2]octane-2,5-diol

Ee = >99%
[α]_D = -111 (c 0.55, *t*BuOMe)
Source of chirality: asymmetric synthesis
Absolute configuration: (1S,2S,4S,5S)

Annika Friberg, Ian Sarvary, Ola F. Wendt, Torbjörn Frejd*

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$C_{15}H_{20}O_3$

(1S,2S,4S,5S)-2-(2-Methoxyphenyl)bicyclo[2.2.2]octane-2,5-diol

Ee = >99%

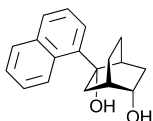
$[\alpha]_D = -59$ (c 0.52, tBuOMe)

Source of chirality: asymmetric synthesis

Absolute configuration: (1S,2S,4S,5S)

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$C_{18}H_{20}O_2$

(1S,2S,4S,5S)-2-(Naphthalen-1-yl)bicyclo[2.2.2]octane-2,5-diol

Ee = >99%

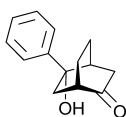
$[\alpha]_D = -74$ (c 0.50, tBuOMe)

Source of chirality: asymmetric synthesis

Absolute configuration: (1S,2S,4S,5S)

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$C_{14}H_{16}O_2$

(1S,4S,5S)-5-Hydroxy-5-phenylbicyclo[2.2.2]octan-2-one

Ee = >99%

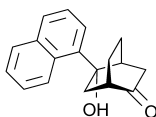
$[\alpha]_D = -20$ (c 0.30, tBuOMe)

Source of chirality: asymmetric synthesis

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

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$C_{18}H_{18}O_2$

(1S,4S,5S)-5-Hydroxy-5-(naphthalen-1-yl)bicyclo[2.2.2]octan-2-one

Ee = >99%

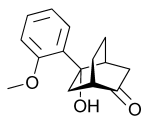
$[\alpha]_D = -22$ (c 0.51, tBuOMe)

Source of chirality: asymmetric synthesis

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

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$C_{15}H_{18}O_3$

(1S,4S,5S)-5-Hydroxy-5-(2-methoxyphenyl)bicyclo[2.2.2]octan-2-one

$E_e = >99\%$

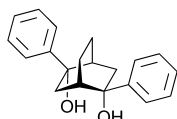
$[\alpha]_D = -4.9$ (c 0.50, tBuOMe)

Source of chirality: asymmetric synthesis

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

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$C_{20}H_{22}O_2$

(1S,2S,4S,5S)-2,5-Diphenylbicyclo[2.2.2]octane-2,5-diol (**7a**)

$E_e = >99\%$

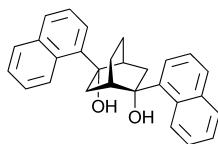
$[\alpha]_D = -87$ (c 0.40, tBuOMe)

Source of chirality: asymmetric synthesis

Absolute configuration: (1S,2S,4S,5S)

Annika Friberg, Ian Sarvary, Ola F. Wendt, Torbjörn Frejd*

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$C_{28}H_{26}O_2$

(1S,2S,4S,5S)-2,5-Di(naphthalen-1-yl)bicyclo[2.2.2]octane-2,5-diol

$E_e = >99\%$

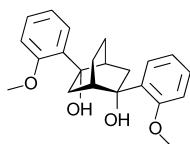
$[\alpha]_D = -110$ (c 0.45, tBuOMe)

Source of chirality: asymmetric synthesis

Absolute configuration: (1S,2S,4S,5S)

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$C_{22}H_{26}O_4$

(1S,2S,4S,5S)-2,5-Bis(2-methoxyphenyl)bicyclo[2.2.2]octane-2,5-diol

$E_e = >99\%$

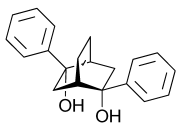
$[\alpha]_D = -24$ (c 0.32, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Absolute configuration: (1S,2S,4S,5S)

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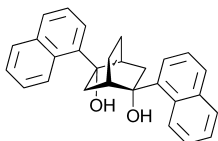
$C_{20}H_{20}O_2$

(1R,2S,4R,5S)-2,5-Diphenylbicyclo[2.2.2]oct-7-ene-2,5-diol

Ee = >99%
[α]_D = +74 (c 0.50, CHCl₃)
Source of chirality: asymmetric synthesis
Absolute configuration: (1R,2S,4R,5S)

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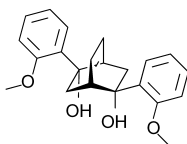
$C_{28}H_{24}O_2$

(1S,2R,4S,5R)-2,5-Di(naphthalen-1-yl)bicyclo[2.2.2]oct-7-ene-2,5-diol

Ee = >99%
[α]_D = +13.7 (c 1.53, CHCl₃)
Source of chirality: asymmetric synthesis
Absolute configuration: (1S,2R,4S,5R)

Annika Friberg, Ian Sarvary, Ola F. Wendt, Torbjörn Frejd*

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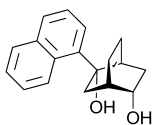
$C_{22}H_{24}O_4$

(1S,2R,4S,5R)-2,5-Bis(2-methoxyphenyl)bicyclo[2.2.2]oct-7-ene-2,5-diol

Ee = >99%
[α]_D = -147 (c 0.23, CH₂Cl₂)
Source of chirality: asymmetric synthesis
Absolute configuration: (1S,2R,4S,5R)

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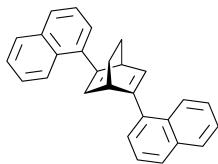
$C_{18}H_{18}O_2$

(1R,2S,4R,5S)-2-(Naphthalen-1-yl)bicyclo[2.2.2]oct-7-ene-2,5-diol

Ee = >99%
[α]_D = -44 (c 0.45, tBuOMe)
Source of chirality: asymmetric synthesis
Absolute configuration: (1R,2S,4R,5S)

Annika Friberg, Ian Sarvary, Ola F. Wendt, Torbjörn Frejd*

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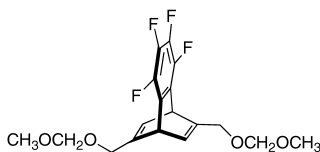
$C_{28}H_{22}$

(1S,4S)-2,5-Di(naphthalen-1-yl)bicyclo[2.2.2]octa-2,5-diene

Ee = >99%
[α]_D = -198 (c 1.05, CHCl₃)
Source of chirality: asymmetric synthesis
Absolute configuration: (1S,4S)

Takahiro Nishimura,* Yuichi Yasuhara, Makoto Nagaosa, Tamio Hayashi*

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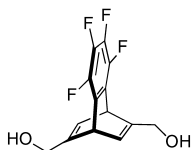
$C_{18}H_{18}F_4O_4$

2,5-Bis[(methoxymethoxy)methyl]-7,8-tetrafluorobenzobicyclo[2.2.2]octatriene

Ee = 100%
[α]_D²⁰ = -8.2 (c 0.97, CHCl₃)
Source of chirality: resolution by chiral HPLC (Chiralcel OD-H)
Absolute configuration: (1R,4R)

Takahiro Nishimura,* Yuichi Yasuhara, Makoto Nagaosa, Tamio Hayashi*

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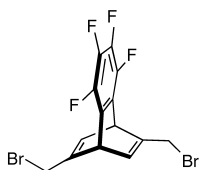
$C_{14}H_{10}F_4O_2$

2,5-Bis(hydroxymethyl)-7,8-tetrafluorobenzobicyclo[2.2.2]octatriene

Ee = 100%
[α]_D²⁰ = -17.2 (c 1.02, CHCl₃)
Absolute configuration: (1R,4R)

Takahiro Nishimura,* Yuichi Yasuhara, Makoto Nagaosa, Tamio Hayashi*

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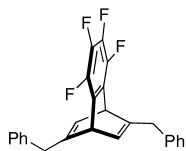
$C_{14}H_8Br_2F_4$

2,5-Bis(bromomethyl)-7,8-tetrafluorobenzobicyclo[2.2.2]octatriene

Ee = 100%
[α]_D²⁰ = -31.1 (c 0.99, CHCl₃)
Absolute configuration: (1R,4R)

Takahiro Nishimura,* Yuichi Yasuhara, Makoto Nagaosa, Tamio Hayashi*

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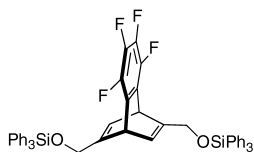
$C_{26}H_{18}F_4$

2,5-Dibenzyl-7,8-tetrafluorobenzobicyclo[2.2.2]octatriene

Ee = 100%
 $[\alpha]_D^{20} = +28.4$ (c 1.00, $CHCl_3$)
Absolute configuration: (1*R*,4*R*)

Takahiro Nishimura,* Yuichi Yasuhara, Makoto Nagaosa, Tamio Hayashi*

Tetrahedron: Asymmetry 19 (2008) 1778



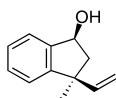
$C_{50}H_{38}F_4O_2Si_2$

2,5-Bis[(triphenylsiloxy)methyl]-7,8-tetrafluorobenzobicyclo[2.2.2]octatriene

Ee = 100%
 $[\alpha]_D^{20} = +11.1$ (c 1.04, $CHCl_3$)
Absolute configuration: (1*R*,4*R*)

Takahiro Nishimura,* Yuichi Yasuhara, Makoto Nagaosa, Tamio Hayashi*

Tetrahedron: Asymmetry 19 (2008) 1778



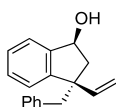
$C_{12}H_{14}O$

3-Methyl-3-vinyl-2,3-dihydro-1*H*-inden-1-ol

Ee = 95%
 $[\alpha]_D^{20} = +30.3$ (c 1.06, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1*S*,3*S*)

Takahiro Nishimura,* Yuichi Yasuhara, Makoto Nagaosa, Tamio Hayashi*

Tetrahedron: Asymmetry 19 (2008) 1778



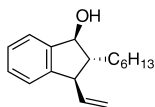
$C_{18}H_{18}O$

3-Benzyl-3-vinyl-2,3-dihydro-1*H*-inden-1-ol

Ee = 94%
 $[\alpha]_D^{20} = +56.9$ (c 0.84, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (1*S*,3*S*)

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Tetrahedron: Asymmetry 19 (2008) 1778



C₁₇H₂₄O

(1*S*,2*R*,3*R*)-2-Hexyl-3-vinyl-2,3-dihydro-1*H*-inden-1-ol

Ee = 93%

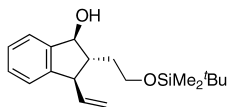
[α]_D²⁰ = +80.0 (c 0.89, CHCl₃)

Source of chirality: asymmetric synthesis

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

Takahiro Nishimura,* Yuichi Yasuhara, Makoto Nagaosa, Tamio Hayashi*

Tetrahedron: Asymmetry 19 (2008) 1778



C₁₉H₃₀O₂Si

2-[2-(*tert*-Butyldimethylsilyloxy)ethyl]-3-vinyl-2,3-dihydro-1*H*-inden-1-ol

Ee = 92%

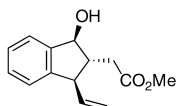
[α]_D²⁰ = +39.9 (c 0.97, CHCl₃)

Source of chirality: asymmetric synthesis

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

Takahiro Nishimura,* Yuichi Yasuhara, Makoto Nagaosa, Tamio Hayashi*

Tetrahedron: Asymmetry 19 (2008) 1778



C₁₄H₁₆O₃

Methyl 2-(1-hydroxy-3-vinyl-2,3-dihydro-1*H*-inden-2-yl)acetate

Ee = 92%

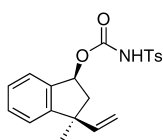
[α]_D²⁰ = +94.4 (c 1.05, CHCl₃)

Source of chirality: asymmetric synthesis

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

Takahiro Nishimura,* Yuichi Yasuhara, Makoto Nagaosa, Tamio Hayashi*

Tetrahedron: Asymmetry 19 (2008) 1778



C₂₀H₂₁NO₄S

3-Methyl-3-vinyl-2,3-dihydro-1*H*-inden-1-yl tosylcarbamate

Ee = >99%

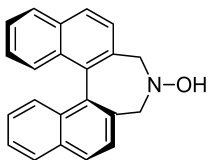
[α]_D²⁰ = -17.2 (c 0.55, CHCl₃)

Source of chirality: asymmetric synthesis

Absolute configuration: (1*S*,3*S*)

Laura Pisani, Stefano Superchi*

Tetrahedron: Asymmetry 19 (2008) 1784



$C_{22}H_{17}NO$

(S)-(+)-3,5-Dihydro-4H-dinaphth[2,1-c:1'2'-e]azepine-N-hydroxide

Ee >99%

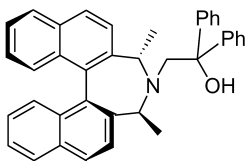
$[\alpha]_D^{21} = +354.7$ (c 1.02, $CHCl_3$)

Source of chirality: (S)-(-)-1,1'-bi-2-naphthol

Absolute configuration: (S)

Laura Pisani, Stefano Superchi*

Tetrahedron: Asymmetry 19 (2008) 1784



$C_{38}H_{33}NO$

(α,S,S,S)-(+)-N-(2,2-Diphenyl-2-hydroxyethyl)-3,5-dihydro-3,5-dimethyl-4H-dinaphth[2,1-c:1',2'-e]azepine

Ee >99%

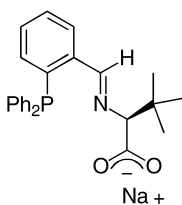
$[\alpha]_D^{25} = +3.2$ (c 0.57, $CHCl_3$)

Source of chirality: (S)-(-)-1,1'-bi-2-naphthol

Absolute configuration: (S)

Joanna Wencel, Diane Rix, Thomas Jennequin, Stéphane Labat, Christophe Crévisy*,
Marc Mauduit*

Tetrahedron: Asymmetry 19 (2008) 1804



$C_{25}H_{26}NNaO_2P$

Sodium *tert*-leucine-diphenylphosphinoazomethinylate

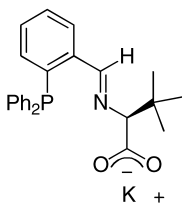
$[\alpha]^{20} = -11.4$ (c 1, methanol)

Source of chirality: (S)-*tert*-leucine 99% ee

Absolute configuration: (S)

Joanna Wencel, Diane Rix, Thomas Jennequin, Stéphane Labat, Christophe Crévisy*,
Marc Mauduit*

Tetrahedron: Asymmetry 19 (2008) 1804



$C_{25}H_{26}NKO_2P$

Potassium *tert*-leucine-diphenylphosphinoazomethinylate

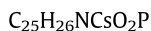
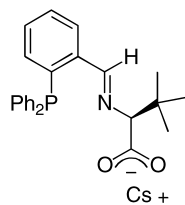
$[\alpha]^{20} = -11.0$ (c 1, methanol)

Source of chirality: (S)-*tert*-leucine 99% ee

Absolute configuration: (S)

Joanna Wencel, Diane Rix, Thomas Jennequin, Stéphane Labat, Christophe Crévisy*,
Marc Mauduit*

Tetrahedron: Asymmetry 19 (2008) 1804

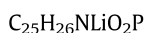
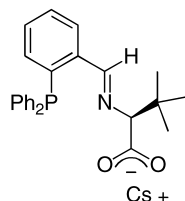


Cesium *tert*-leucine-diphenylphosphinoazomethinylate

$[\alpha]^{20} = -7.4$ (c 1, methanol)
Source of chirality: (*S*)-*tert*-leucine 99% ee
Absolute configuration: (*S*)

Joanna Wencel, Diane Rix, Thomas Jennequin, Stéphane Labat, Christophe Crévisy*,
Marc Mauduit*

Tetrahedron: Asymmetry 19 (2008) 1804

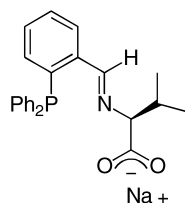


Lithium *tert*-leucine-diphenylphosphinoazomethinylate

$[\alpha]^{20} = -11.5$ (c 1, methanol)
Source of chirality: (*S*)-*tert*-leucine 99% ee
Absolute configuration: (*S*)

Joanna Wencel, Diane Rix, Thomas Jennequin, Stéphane Labat, Christophe Crévisy*,
Marc Mauduit*

Tetrahedron: Asymmetry 19 (2008) 1804

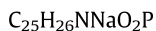
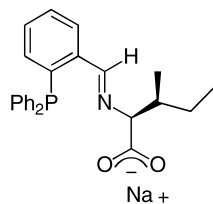


Sodium valine-diphenylphosphinoazomethinylate

$[\alpha]^{20} = -11.7$ (c 1, methanol)
Source of chirality: (*S*)-valine 99% ee
Absolute configuration: (*S*)

Joanna Wencel, Diane Rix, Thomas Jennequin, Stéphane Labat, Christophe Crévisy*,
Marc Mauduit*

Tetrahedron: Asymmetry 19 (2008) 1804

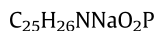
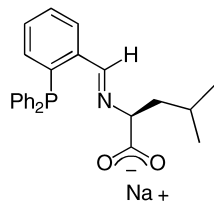


Sodium *iso*-leucine-diphenylphosphinoazomethinylate

$[\alpha]^{20} = -15.0$ (c 1, methanol)
Source of chirality: (*S,S*)-*iso*-leucine 99% ee
Absolute configuration: (*S,S*)

Joanna Wencel, Diane Rix, Thomas Jennequin, Stéphane Labat, Christophe Crévisy*,
Marc Mauduit*

Tetrahedron: Asymmetry 19 (2008) 1804



Sodium leucine-diphenylphosphinoazomethinylnate

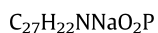
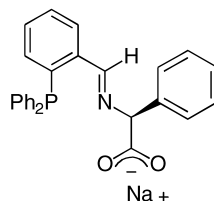
$[\alpha]^{20} = -12.3$ (c 1, methanol)

Source of chirality: (S)-valine 99% ee

Absolute configuration: (S)

Joanna Wencel, Diane Rix, Thomas Jennequin, Stéphane Labat, Christophe Crévisy*,
Marc Mauduit*

Tetrahedron: Asymmetry 19 (2008) 1804



Sodium phenylglycine-diphenylphosphinoazomethinylnate

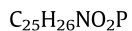
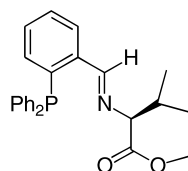
$[\alpha]^{20} = +4.5$ (c 1, methanol)

Source of chirality: (S)-phenylglycine 99% ee

Absolute configuration: (S)

Joanna Wencel, Diane Rix, Thomas Jennequin, Stéphane Labat, Christophe Crévisy*,
Marc Mauduit*

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Valine-diphenylphosphinoazomethinylnate methyl ester

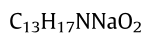
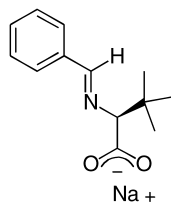
$[\alpha]^{20} = -9.1$ (c 1, methanol)

Source of chirality: (S)-leucine 99% ee

Absolute configuration: (S)

Joanna Wencel, Diane Rix, Thomas Jennequin, Stéphane Labat, Christophe Crévisy*,
Marc Mauduit*

Tetrahedron: Asymmetry 19 (2008) 1804



Sodium *tert*-leucine-azomethinylnate

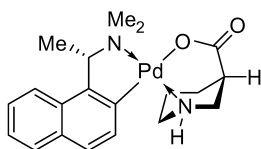
$[\alpha]^{20} = -3.2$ (c 1, methanol)

Source of chirality: (S)-*tert*-leucine 99% ee

Absolute configuration: (S)

Paul A. Gugger, David C. R. Hockless, Nathan L. Kilah, Renuka C. Mayadunne,
S. Bruce Wild*

Tetrahedron: Asymmetry 19 (2008) 1810



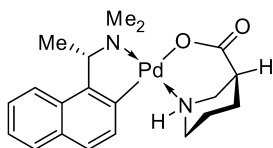
$[\alpha]_D = +184.2$ (c 1.00, CHCl_3)
Absolute configuration: (S),(R,S_N)
Source of chirality: resolution

$\text{C}_{20}\text{H}_{26}\text{N}_2\text{O}_2\text{Pd}$

[SP-4-4]-(+)₅₈₉-1-[1-(Dimethylamino)ethyl]-2-naphthalenyl-C²,N][(R,S_N)-3-piperidinecarboxylato-N,O]palladium(II)

Paul A. Gugger, David C. R. Hockless, Nathan L. Kilah, Renuka C. Mayadunne,
S. Bruce Wild*

Tetrahedron: Asymmetry 19 (2008) 1810



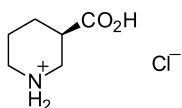
$[\alpha]_D = -36.8$ (c 1.00, CHCl_3)
Absolute configuration: (S),(S,R_N)
Source of chirality: resolution

$\text{C}_{20}\text{H}_{26}\text{N}_2\text{O}_2\text{Pd}$

[SP-4-4]-(+)₅₈₉-1-[1-(Dimethylamino)ethyl]-2-naphthalenyl-C²,N][(S,R_N)-3-piperidinecarboxylato-N,O]palladium(II)

Paul A. Gugger, David C. R. Hockless, Nathan L. Kilah, Renuka C. Mayadunne,
S. Bruce Wild*

Tetrahedron: Asymmetry 19 (2008) 1810



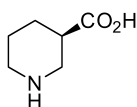
$[\alpha]_D = -2.7$ (c 1.00, H_2O)
Absolute configuration: (R)
Source of chirality: resolution

$\text{C}_6\text{H}_{12}\text{ClNO}_2$

(R)-(-)₅₈₉-3-Piperidinecarboxylic acid hydrochloride

Paul A. Gugger, David C. R. Hockless, Nathan L. Kilah, Renuka C. Mayadunne,
S. Bruce Wild*

Tetrahedron: Asymmetry 19 (2008) 1810



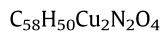
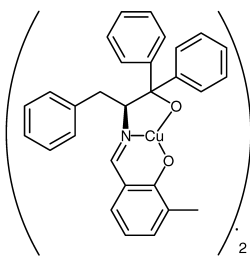
$[\alpha]_D = -4.6$ (c 1.00, H_2O)
Absolute configuration: (R)
Source of chirality: resolution

$\text{C}_6\text{H}_{11}\text{NO}_2$

(R)-(-)₅₈₉-3-Piperidinecarboxylic acid

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813

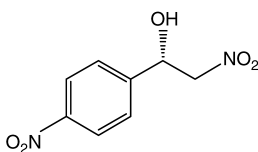


Complex **1a**

$[\alpha]_D^{25} = -258$ (c 0.45, CH_2Cl_2)
Source of chirality: phenylalanine
Absolute configuration: (2*S*)

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Tetrahedron: Asymmetry 19 (2008) 1813

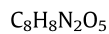
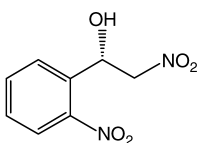


(*S*)-1-(4-Nitrophenyl)-2-nitroethanol

$[\alpha]_D^{25} = +35.9$ (c 1.01, CH_2Cl_2)
Source of chirality: copper trident chiral Schiff-base complex
Absolute configuration: (1*S*)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813

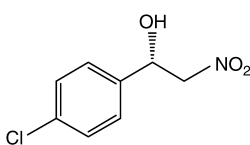


(*S*)-1-(2-Nitrophenyl)-2-nitroethanol

$[\alpha]_D^{25} = +139.7$ (c 0.61, CH_2Cl_2)
Source of chirality: copper trident chiral Schiff-base complex
Absolute configuration: (1*S*)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813

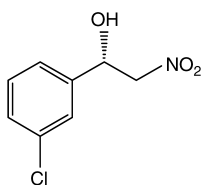


(*S*)-1-(4-Chlorophenyl)-2-nitroethanol

$[\alpha]_D^{25} = +20.5$ (c 1.12, CH_2Cl_2)
Source of chirality: copper trident chiral Schiff-base complex
Absolute configuration: (1*S*)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813



(S)-1-(3-Chlorophenyl)-2-nitroethanol

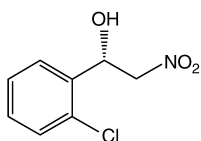
$[\alpha]_D^{25} = +82.1$ (c 0.57, CH_2Cl_2)

Source of chirality: copper trident chiral Schiff-base complex

Absolute configuration: (1S)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813



(S)-1-(2-Chlorophenyl)-2-nitroethanol

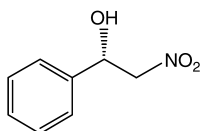
$[\alpha]_D^{25} = +46.3$ (c 1.07, CH_2Cl_2)

Source of chirality: copper trident chiral Schiff-base complex

Absolute configuration: (1S)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813



(S)-1-Phenyl-2-nitroethanol

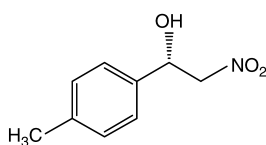
$[\alpha]_D^{25} = +38.1$ (c 0.98, CH_2Cl_2)

Source of chirality: copper trident chiral Schiff-base complex

Absolute configuration: (1S)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813



(S)-2-Nitro-1-p-tolyethanol

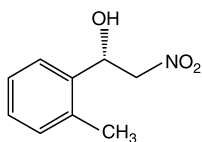
$[\alpha]_D^{25} = +23.4$ (c 1.12, CH_2Cl_2)

Source of chirality: copper trident chiral Schiff-base complex

Absolute configuration: (1S)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813



C₉H₁₁NO₃

(S)-2-Nitro-1-o-tolyethanol

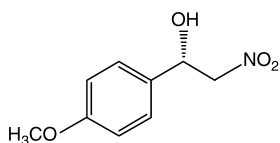
$[\alpha]_D^{25} = +51.2$ (c 1.01, CH₂Cl₂)

Source of chirality: copper trident chiral Schiff-base complex

Absolute configuration: (1S)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813



C₉H₁₁NO₄

(S)-1-(4-Methoxyphenyl)-2-nitroethanol

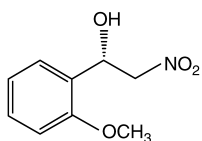
$[\alpha]_D^{25} = +29.0$ (c 2.03, CH₂Cl₂)

Source of chirality: copper trident chiral Schiff-base complex

Absolute configuration: (1S)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813



C₉H₁₁NO₄

(S)-1-(2-Methoxyphenyl)-2-nitroethanol

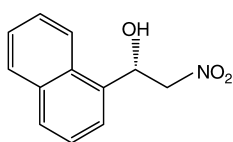
$[\alpha]_D^{25} = +43.6$ (c 1.05, CH₂Cl₂)

Source of chirality: copper trident chiral Schiff-base complex

Absolute configuration: (1S)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813



C₁₂H₁₁NO₃

(S)-1-(1-Naphthyl)-2-nitroethanol

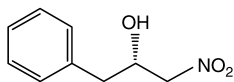
$[\alpha]_D^{25} = +24.1$ (c 1.06, CH₂Cl₂)

Source of chirality: copper trident chiral Schiff-base complex

Absolute configuration: (1S)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813



C₉H₁₁NO₃

(S)-1-Nitro-3-phenylpropan-2-ol

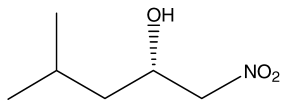
$[\alpha]_D^{25} = -43.4$ (c 2.17, CH₂Cl₂)

Source of chirality: copper trident chiral Schiff-base complex

Absolute configuration: (2S)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813



C₆H₁₃NO₃

(S)-4-Methyl-1-nitropentan-2-ol

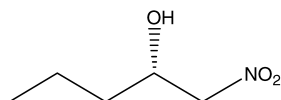
$[\alpha]_D^{25} = -15.8$ (c 2.12, CH₂Cl₂)

Source of chirality: copper trident chiral Schiff-base complex

Absolute configuration: (2S)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813



C₅H₁₁NO₃

(S)-1-Nitropentan-2-ol

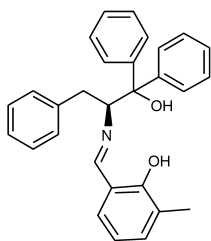
$[\alpha]_D^{25} = -53.2$ (c 0.81, CH₂Cl₂)

Source of chirality: copper trident chiral Schiff-base complex

Absolute configuration: (2S)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813



C₂₉H₂₇NO₂

2-(((S)-1-Hydroxy-1,1,3-triphenylpropan-2-ylimino)methyl)-6-methylphenol

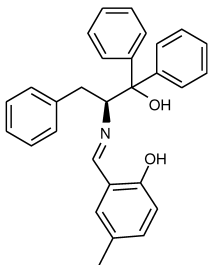
$[\alpha]_D^{25} = -53.2$ (c 0.81, CH₂Cl₂)

Source of chirality: phenylalanine

Absolute configuration: (2S)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813



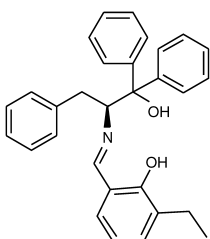
$C_{29}H_{27}NO_2$

2-(((S)-1-Hydroxy-1,1,3-triphenylpropan-2-ylimino)methyl)-4-methylphenol

$[\alpha]_D^{25} = -72.0$ (c 1.01, CH_2Cl_2)
Source of chirality: phenylalanine
Absolute configuration: (2S)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

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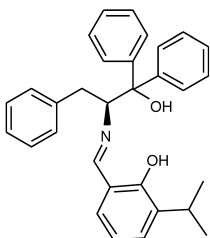
$C_{30}H_{29}NO_2$

2-(((S)-1-Hydroxy-1,1,3-triphenylpropan-2-ylimino)methyl)-6-ethylphenol

$[\alpha]_D^{25} = -50.2$ (c 0.96, CH_2Cl_2)
Source of chirality: phenylalanine
Absolute configuration: (2S)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813



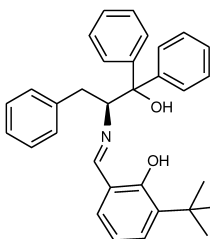
$C_{31}H_{31}NO_2$

2-(((S)-1-Hydroxy-1,1,3-triphenylpropan-2-ylimino)methyl)-6-isopropylphenol

$[\alpha]_D^{25} = -53.2$ (c 0.81, CH_2Cl_2)
Source of chirality: phenylalanine
Absolute configuration: (2S)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813



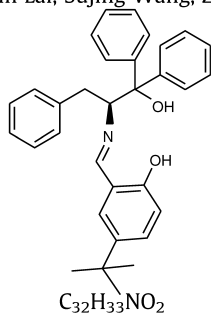
$C_{32}H_{33}NO_2$

2-(((S)-1-Hydroxy-1,1,3-triphenylpropan-2-ylimino)methyl)-6-tert-butylphenol

$[\alpha]_D^{25} = -71.0$ (c 0.97, CH_2Cl_2)
Source of chirality: phenylalanine
Absolute configuration: (2S)

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813

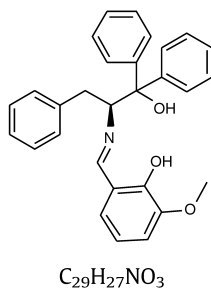


$[\alpha]_D^{25} = -71.3$ (c 0.88, CH₂Cl₂)
Source of chirality: phenylalanine
Absolute configuration: (2*S*)

C32H33NO2
2-(((*S*)-1-Hydroxy-1,1,3-triphenylpropan-2-ylimino)methyl)-4-*tert*-butylphenol

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813

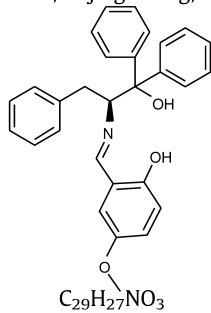


$[\alpha]_D^{25} = -56.1$ (c 0.67, CH₂Cl₂)
Source of chirality: phenylalanine
Absolute configuration: (2*S*)

C29H27NO3
2-(((*S*)-1-Hydroxy-1,1,3-triphenylpropan-2-ylimino)methyl)-6-methoxyphenol

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813

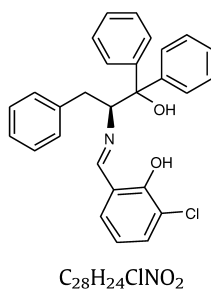


$[\alpha]_D^{25} = -54.0$ (c 0.68, CH₂Cl₂)
Source of chirality: phenylalanine
Absolute configuration: (2*S*)

C29H27NO3
2-(((*S*)-1-Hydroxy-1,1,3-triphenylpropan-2-ylimino)methyl)-4-methoxyphenol

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813

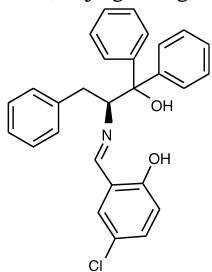


$[\alpha]_D^{25} = -58.1$ (c 0.90, CH₂Cl₂)
Source of chirality: phenylalanine
Absolute configuration: (2*S*)

C28H24ClNO2
2-(((*S*)-1-Hydroxy-1,1,3-triphenylpropan-2-ylimino)methyl)-6-chlorophenol

Guoyin Lai, Sujing Wang, Zhiyong Wang*

Tetrahedron: Asymmetry 19 (2008) 1813



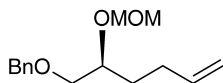
$C_{28}H_{24}ClNO_2$

2-(((S)-1-Hydroxy-1,1,3-triphenylpropan-2-ylimino)methyl)-4-chlorophenol

$[\alpha]_D^{25} = -33.5$ (c 0.78, CH_2Cl_2)
Source of chirality: phenylalanine
Absolute configuration: (2S)

Errabelli Ramu, B. Venkateswara Rao*

Tetrahedron: Asymmetry 19 (2008) 1820



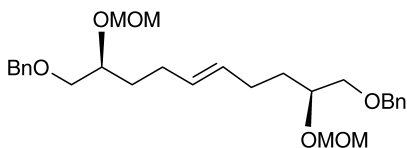
$C_{15}H_{22}O_3$

(S)-((2-(Methoxymethoxy)hex-5-enyloxy)methyl)benzene

$[\alpha]_D^{32} = -42$ (c 1, CH_2Cl_2)
Source of chirality: asymmetric synthesis
Absolute configuration: (2S)

Errabelli Ramu, B. Venkateswara Rao*

Tetrahedron: Asymmetry 19 (2008) 1820



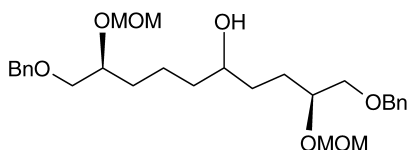
$C_{28}H_{40}O_6$

(5R,12S,E)-5,12-Bis(benzyloxymethyl)-2,4,13,15-tetraoxahexadec-8-ene

$[\alpha]_D^{32} = -9.2$ (c 1.25, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (5R,12S,E)

Errabelli Ramu, B. Venkateswara Rao*

Tetrahedron: Asymmetry 19 (2008) 1820



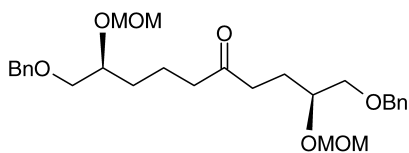
$C_{28}H_{42}O_7$

(5R,12S)-5,12-Bis(benzyloxymethyl)-2,4,13,15-tetraoxahexadecan-8-ol

$[\alpha]_D^{32} = -7.6$ (c 1.2, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (5R,12S)

Errabelli Ramu, B. Venkateswara Rao*

Tetrahedron: Asymmetry 19 (2008) 1820



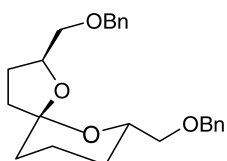
$C_{28}H_{40}O_7$

(5R,12S)-5,12-Bis(benzyloxymethyl)-2,4,13,15-tetraoxahexadecan-8-one

$[\alpha]_D^{32} = -21.4$ (c 1.3, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (5R,12S)

Errabelli Ramu, B. Venkateswara Rao*

Tetrahedron: Asymmetry 19 (2008) 1820



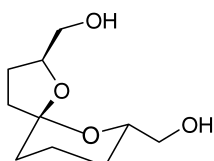
$C_{24}H_{30}O_7$

(2S,5R,7S)-2,7-Bis(benzyloxymethyl)-1,6-dioxaspiro[4.5]decane

$[\alpha]_D^{32} = +18.2$ (c 1.1, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (2S,5R,7S)

Errabelli Ramu, B. Venkateswara Rao*

Tetrahedron: Asymmetry 19 (2008) 1820



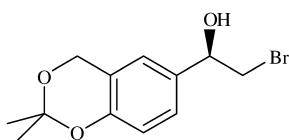
$C_{10}H_{18}O_4$

(2S,5R,7S)-1,6-Dioxaspiro[4.5]decane-2,7-diyldimethanol

$[\alpha]_D^{32} = +69.9$ (c 1.25, $CHCl_3$)
Source of chirality: asymmetric synthesis
Absolute configuration: (2S,5R,7S)

Juntao Liu, Di Zhou, Xian Jia, Ling Huang, Xingshu Li*, Albert S. C. Chan

Tetrahedron: Asymmetry 19 (2008) 1824



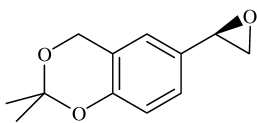
$C_{12}H_{15}BrO_3$

(R)-2-Bromo-1-(2,2-dimethyl-4H-benzo[d][1,3]dioxin-6-yl)ethanol

$E_e = 98\%$
 $[\alpha]_D^{20} = -29.3$ (c 1.1, $CHCl_3$)
Source of chirality: asymmetric catalysis
Absolute configuration: (R)

Juntao Liu, Di Zhou, Xian Jia, Ling Huang, Xingshu Li*, Albert S. C. Chan

Tetrahedron: Asymmetry 19 (2008) 1824



C₁₂H₁₄O₃

(*R*)-2,2-Dimethyl-6-(oxiran-2-yl)-4*H*-benzo[*d*][1,3]dioxine

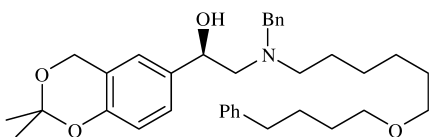
$[\alpha]_D^{20} = -39.7$ (c 1.1, CHCl₃)

Source of chirality: (*R*)-2-bromo-1-(2,2-dimethyl-4*H*-benzo[*d*][1,3]dioxin-6-yl)ethanol

Absolute configuration: (*R*)

Juntao Liu, Di Zhou, Xian Jia, Ling Huang, Xingshu Li*, Albert S. C. Chan

Tetrahedron: Asymmetry 19 (2008) 1824



C₃₅H₄₇NO₄

(*R*)-2-(Benzyl(6-(4-phenylbutoxy)hexyl)amino)-1-(2,2-dimethyl-4*H*-benzo[*d*][1,3]dioxin-6-yl)ethanol

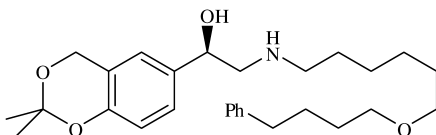
$[\alpha]_D^{20} = -13.9$ (c 1.1, CHCl₃)

Source of chirality: (*R*)-2,2-dimethyl-6-(oxiran-2-yl)-4*H*-benzo[*d*][1,3]dioxine

Absolute configuration: (*R*)

Juntao Liu, Di Zhou, Xian Jia, Ling Huang, Xingshu Li*, Albert S. C. Chan

Tetrahedron: Asymmetry 19 (2008) 1824



C₂₈H₄₁NO₄

(*R*)-1-(2,2-Dimethyl-4*H*-benzo[*d*][1,3]dioxin-6-yl)-2-(6-(4-phenylbutoxy)hexylamino)ethanol

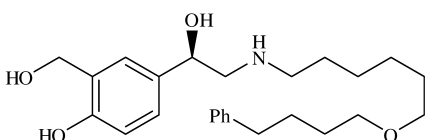
$[\alpha]_D^{20} = -16.5$ (c 1.2, CHCl₃)

Source of chirality: (*R*)-2-(benzyl(6-(4-phenylbutoxy)-hexyl)amino)-1-(2,2-dimethyl-4*H*-benzo[*d*][1,3]dioxin-6-yl)ethanol

Absolute configuration: (*R*)

Juntao Liu, Di Zhou, Xian Jia, Ling Huang, Xingshu Li*, Albert S. C. Chan

Tetrahedron: Asymmetry 19 (2008) 1824



C₂₅H₃₇NO₄

(*R*)-4-(1-Hydroxy-2-(6-(4-phenylbutoxy)hexylamino)ethyl)-2-(hydroxymethyl)phenol

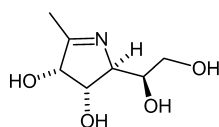
$[\alpha]_D^{20} = -18.7$ (c 1.06, MeOH)

Source of chirality: (*R*)-1-(2,2-dimethyl-4*H*-benzo[*d*][1,3]dioxin-6-yl)-2-(6-(4-phenylbutoxy)hexylamino)ethanol

Absolute configuration: (*R*)

Jean-Bernard Behr,* Morwenna S.M. Pearson, Claudia Bello, Pierre Vogel,
Richard Plantier-Royon

Tetrahedron: Asymmetry 19 (2008) 1829



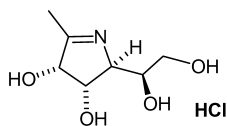
C₇H₁₃NO₄

(3R,4S,5S)-3,4-Dihydroxy-5-[(1'S)-1',2'-dihydroxyethyl]-2-methyl-1-pyrroline

$[\alpha]_D^{20} = -21.0$ (c 0.16, MeOH)
Source of chirality: chiral pool
Absolute configuration: (1'S,3R,4S,5S)

Jean-Bernard Behr,* Morwenna S.M. Pearson, Claudia Bello, Pierre Vogel,
Richard Plantier-Royon

Tetrahedron: Asymmetry 19 (2008) 1829



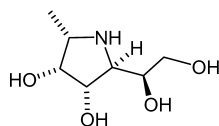
C₇H₁₅NO₄, HCl

(3R,4S,5S)-3,4-Dihydroxy-5-[(1'S)-1',2'-dihydroxyethyl]-2-methyl-1-pyrroline hydrochloride

$[\alpha]_D^{20} = -122.0$ (c 0.3, MeOH)
Source of chirality: chiral pool
Absolute configuration: (1'S,3R,4S,5S)

Jean-Bernard Behr,* Morwenna S.M. Pearson, Claudia Bello, Pierre Vogel,
Richard Plantier-Royon

Tetrahedron: Asymmetry 19 (2008) 1829



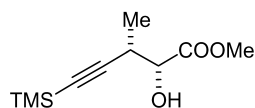
C₇H₁₃NO₄

(2S,3R,4S,5S)-3,4-Dihydroxy-5-[(1'S)-1',2'-dihydroxyethyl]-2-methylpyrrolidine

$[\alpha]_D^{20} = -46.0$ (c 0.22, MeOH)
Source of chirality: chiral pool, stereoselective reduction
Absolute configuration: (1'S,2S,3R,4S,5S)

Noriyuki Sutou, Keisuke Kato, Hiroyuki Akita*

Tetrahedron: Asymmetry 19 (2008) 1833



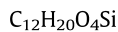
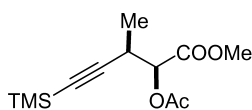
C₁₀H₁₈O₃Si

(2R,3S)-2-Hydroxy-3-methyl-5-trimethylsilyl-4-pentynoate

E_e = 94%
 $[\alpha]_D^{25} = -24.8$ (c 1.13, CHCl₃)
Source of chirality: lipase
Absolute configuration: (2R,3S)

Noriyuki Sutou, Keisuke Kato, Hiroyuki Akita*

Tetrahedron: Asymmetry 19 (2008) 1833



(2S,3R)-2-Acetoxy-3-methyl-5-trimethylsilyl-4-pentynoate

Ee = 95%

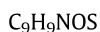
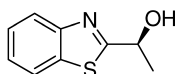
$[\alpha]_D^{27} = +12.05$ (c 1.09, $CHCl_3$)

Source of chirality: lipase

Absolute configuration: (2S,3R)

Monica Toşa, Sarolta Pilbák, Paula Moldovan, Csaba Paizs, Gábor Sztatzker,
György Szakács, Lajos Novák, Florin-Dan Irimie*, László Poppe*

Tetrahedron: Asymmetry 19 (2008) 1844



(S)-1-(Benzo[d]thiazol-2-yl)ethanol

Ee = 97% (by GC analysis)

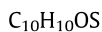
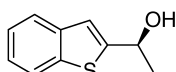
$[\alpha]_D^{25} = -18.4$ (c 1.0, $CHCl_3$)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: (S)

Monica Toşa, Sarolta Pilbák, Paula Moldovan, Csaba Paizs, Gábor Sztatzker,
György Szakács, Lajos Novák, Florin-Dan Irimie*, László Poppe*

Tetrahedron: Asymmetry 19 (2008) 1844



(S)-1-(Benzo[b]thiophen-2-yl)ethanol

Ee = 99% (by GC analysis)

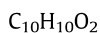
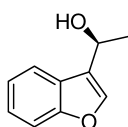
$[\alpha]_D^{25} = -21.2$ (c 1.0, $CHCl_3$)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: (S)

Monica Toşa, Sarolta Pilbák, Paula Moldovan, Csaba Paizs, Gábor Sztatzker,
György Szakács, Lajos Novák, Florin-Dan Irimie*, László Poppe*

Tetrahedron: Asymmetry 19 (2008) 1844



(S)-1-(Benzo[b]furan-3-yl)ethanol

Ee = 97% (by GC analysis)

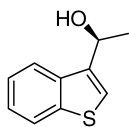
$[\alpha]_D^{25} = -18.5$ (c 1.0, $CHCl_3$)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: (S)

Monica Toşa, Sarolta Pilbák, Paula Moldovan, Csaba Paizs, Gábor Sztzker, György Szakács, Lajos Novák, Florin-Dan Irimie*, László Poppe*

Tetrahedron: Asymmetry 19 (2008) 1844



C₁₀H₁₀OS

(*S*)-1-(Benzo[*b*]thiophen-3-yl)ethanol

Ee = 97% (by GC analysis)

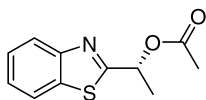
[α]_D²⁵ = -27.1 (c 1.0, CHCl₃)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: (*S*)

Monica Toşa, Sarolta Pilbák, Paula Moldovan, Csaba Paizs, Gábor Sztzker, György Szakács, Lajos Novák, Florin-Dan Irimie*, László Poppe*

Tetrahedron: Asymmetry 19 (2008) 1844



C₁₁H₁₁NO₂S

(*R*)-1-(Benzo[*d*]thiazol-2-yl)ethyl acetate

Ee = 98% (by GC)

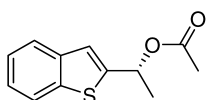
[α]_D²⁵ = +75.5 (c 1.0, CHCl₃)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: (*R*)

Monica Toşa, Sarolta Pilbák, Paula Moldovan, Csaba Paizs, Gábor Sztzker, György Szakács, Lajos Novák, Florin-Dan Irimie*, László Poppe*

Tetrahedron: Asymmetry 19 (2008) 1844



C₁₂H₁₂O₂S

(*R*)-1-(Benzo[*b*]thiophen-2-yl)ethyl acetate

Ee = 99% (by GC analysis)

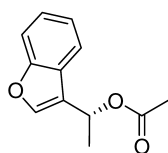
[α]_D²⁵ = +142.2 (c 1.0, CHCl₃)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: (*R*)

Monica Toşa, Sarolta Pilbák, Paula Moldovan, Csaba Paizs, Gábor Sztzker, György Szakács, Lajos Novák, Florin-Dan Irimie*, László Poppe*

Tetrahedron: Asymmetry 19 (2008) 1844



C₁₂H₁₂O₃

(*R*)-1-(Benzo[*b*]furan-3-yl)ethyl acetate

Ee = 97% (by GC analysis)

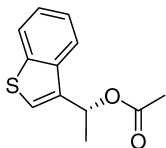
[α]_D²⁵ = +73.2 (c 1.0, CHCl₃)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: (*R*)

Monica Toşa, Sarolta Pilbák, Paula Moldovan, Csaba Paizs, Gábor Sztatzker,
György Szakács, Lajos Novák, Florin-Dan Irimie*, László Poppe*

Tetrahedron: Asymmetry 19 (2008) 1844



$C_{12}H_{12}O_2S$

(*R*)-1-(Benzo[*b*]thiophen-3-yl)ethyl acetate

Ee = 98% (by GC analysis)

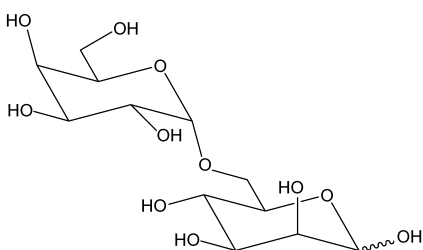
$[\alpha]_D^{25} = +78.2$ (c 1.0, $CHCl_3$)

Source of chirality: lipase-catalyzed kinetic resolution

Absolute configuration: (*R*)

Zuzana Hricovíniová*

Tetrahedron: Asymmetry 19 (2008) 1853



$C_{12}H_{22}O_{11}$

6-*O*- α -*D*-Galactopyranosyl-*D*-mannopyranose

Ee = 100%

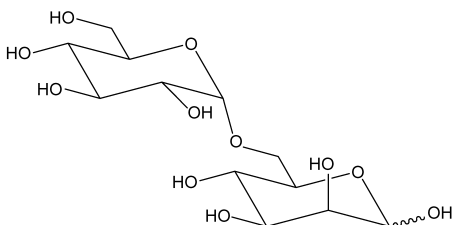
$[\alpha]_D = +121 \rightarrow +122$ (c 1.0, H_2O)

Source of chirality: 6-*O*- α -*D*-galactopyranosyl-*D*-glucopyranose as starting material

Absolute configuration: (2*S*,3*R*,4*R*,5*S*,6*S*)-6-[(2*S*,3*R*,4*R*,5*S*,6*S*)]

Zuzana Hricovíniová*

Tetrahedron: Asymmetry 19 (2008) 1853



$C_{12}H_{22}O_{11}$

6-*O*- α -*D*-Glucopyranosyl-*D*-mannopyranose

Ee = 100%

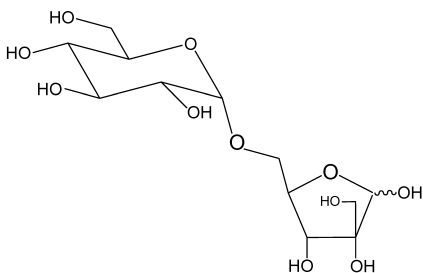
$[\alpha]_D = +90 \rightarrow +92$ (c 1.0, H_2O)

Source of chirality: 6-*O*- α -*D*-glucopyranosyl-*D*-glucopyranose as starting material

Absolute configuration: (2*R*,3*R*,4*S*,5*R*,6*R*)-6-[(2*S*,3*R*,4*R*,5*S*,6*S*)]

Zuzana Hricovíniová*

Tetrahedron: Asymmetry 19 (2008) 1853



$C_{12}H_{22}O_{11}$

6-*O*- α -*D*-Glucopyranosyl-2-*C*-(hydroxymethyl)-*D*-ribofuranose

Ee = 100%

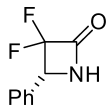
$[\alpha]_D = +100 \rightarrow +102$ (c 1.0, H_2O)

Source of chirality: 6-*O*- α -*D*-glucopyranosyl-*D*-fructofuranose as starting material

Absolute configuration: (2*S*,3*R*,4*S*,5*S*,6*R*)-6-[(2*S*,3*S*,4*R*)]

Xiang-Guo Li, Maria Lähtie, Liisa T. Kanerva*

Tetrahedron: Asymmetry 19 (2008) 1857



$C_9H_7F_2NO$

(*R*)-3,3-Difluoro-4-phenylazetidin-2-one

Ee = 99%

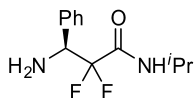
$[\alpha]_D^{22} = -76.6$ (c 1.00, $CHCl_3$)

Source of chirality: from enzymatic resolution

Absolute configuration: (*R*)

Xiang-Guo Li, Maria Lähtie, Liisa T. Kanerva*

Tetrahedron: Asymmetry 19 (2008) 1857



$C_{12}H_{16}F_2N_2O$

(*S*)-3-Amino-2,2-difluoro-3-phenyl-*N*-isopropylpropanamide

Ee = 99%

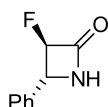
$[\alpha]_D^{22} = +4.2$ (c 1.00, $CHCl_3$)

Source of chirality: from enzymatic resolution

Absolute configuration: (*S*)

Xiang-Guo Li, Maria Lähtie, Liisa T. Kanerva*

Tetrahedron: Asymmetry 19 (2008) 1857



C_9H_8FNO

(3*R*,4*R*)-3-Fluoro-4-phenylazetidin-2-one

Ee = 99%

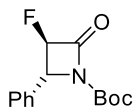
$[\alpha]_D^{22} = -19.1$ (c 1.00, $CHCl_3$)

Source of chirality: from enzymatic resolution

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

Xiang-Guo Li, Maria Lähtie, Liisa T. Kanerva*

Tetrahedron: Asymmetry 19 (2008) 1857



$C_{14}H_{16}FNO_3$

(3*R*,4*R*)-1-(*tert*-Butoxycarbonyl)-3-fluoro-4-phenylazetidin-2-one

Ee = 99%

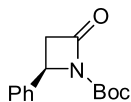
$[\alpha]_D^{22} = -76.0$ (c 0.50, $CHCl_3$)

Source of chirality: derivatized from the chiral precursor

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

Xiang-Guo Li, Maria Lähitie, Liisa T. Kanerva*

Tetrahedron: Asymmetry 19 (2008) 1857



C₁₄H₁₇NO₃

(R)-1-(*tert*-Butoxycarbonyl)-4-phenylazetidin-2-one

Ee = 99%

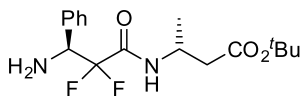
$[\alpha]_D^{22} = +114.0$ (c 0.48, CHCl₃)

Source of chirality: derivatized from the chiral precursor

Absolute configuration: (R)

Xiang-Guo Li, Maria Lähitie, Liisa T. Kanerva*

Tetrahedron: Asymmetry 19 (2008) 1857



C₁₇H₂₄F₂N₂O₃

(R)-3-[(S)-3-Amino-2,2-difluoro-3-phenylpropanoyl]aminobutanoic acid *tert*-butyl ester

Ee = 99%

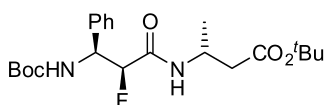
$[\alpha]_D^{22} = +28.8$ (c 1.00, CHCl₃)

Source of chirality: from the chiral precursors

Absolute configuration: (S,R)

Xiang-Guo Li, Maria Lähitie, Liisa T. Kanerva*

Tetrahedron: Asymmetry 19 (2008) 1857



C₂₂H₃₃FN₂O₅

(R)-3-[(2S,3S)-3-*tert*-Butoxycarbonylamino-2-fluoro-3-phenylpropanoyl]aminobutanoic acid *tert*-butyl ester

Ee = 99%

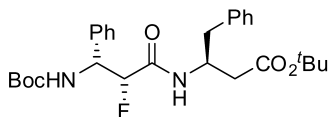
$[\alpha]_D^{22} = +4.2$ (c 0.75, CHCl₃)

Source of chirality: from the chiral precursors

Absolute configuration: (S,S,R)

Xiang-Guo Li, Maria Lähitie, Liisa T. Kanerva*

Tetrahedron: Asymmetry 19 (2008) 1857



C₂₈H₃₇FN₂O₅

(S)-3-[(2R,3R)-3-*tert*-Butoxycarbonylamino-2-fluoro-3-phenylpropanoyl]amino-4-phenylbutanoic acid *tert*-butyl ester

Ee = 99%

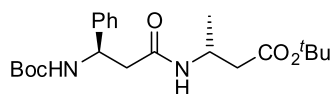
$[\alpha]_D^{22} = +8.7$ (c 1.00, CHCl₃)

Source of chirality: from the chiral precursors

Absolute configuration: (R,R,S)

Xiang-Guo Li, Maria Lähitie, Liisa T. Kanerva*

Tetrahedron: Asymmetry 19 (2008) 1857



$C_{22}H_{34}N_2O_5$

(*R*)-3-[(*R*)-3-*tert*-Butoxycarbonylamino-3-phenylpropanoyl]aminobutanoic acid *tert*-butyl ester

Ee = 99%

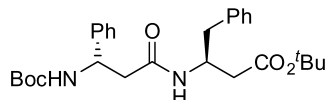
$[\alpha]_D^{22} = +32.4$ (c 1.05, $CHCl_3$)

Source of chirality: from the chiral precursors

Absolute configuration: (*R,R*)

Xiang-Guo Li, Maria Lähitie, Liisa T. Kanerva*

Tetrahedron: Asymmetry 19 (2008) 1857



$C_{28}H_{38}N_2O_5$

(*S*)-3-[(*S*)-3-*tert*-Butoxycarbonylamino-3-phenylpropanoyl]amino-4-phenylbutanoic acid *tert*-butyl ester

Ee = 99%

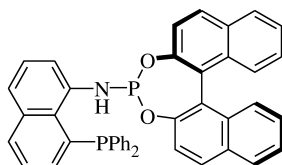
$[\alpha]_D^{22} = -15.0$ (c 1.00, $CHCl_3$)

Source of chirality: from the chiral precursors

Absolute configuration: (*S,S*)

Sai-Bo Yu, Jia-Di Huang, Dao-Yong Wang, Xiang-Ping Hu,* Jun Deng,
Zheng-Chao Duan, Zhuo Zheng*

Tetrahedron: Asymmetry 19 (2008) 1862



$C_{42}H_{29}NO_2P_2$

N-[1-(8-Diphenylphosphino)naphthyl]-(*S*)-1,10-bi-2-naphthylphosphoramidite

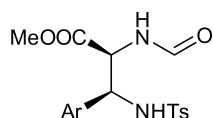
$[\alpha]_D^{20} = +53.7$ (c 0.56, $CHCl_3$)

Source of chirality: (*S*)-BINOL

Absolute configuration: (*S*)

Juhanes Aydin, Andreas Rydén, Kálmán J. Szabó*

Tetrahedron: Asymmetry 19 (2008) 1867



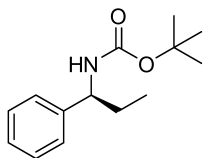
(*2S,3S*) Methyl 2-formylamino-3-[(4-methylphenyl)sulfonyl] amino-3-phenylpropanoate

$[\alpha]_D^{20} = +32$ (c 1.1, THF); corresponds to a *syn:anti* ratio of 1.6:1 for which the enantiomeric excess was *syn* 86% and *anti* 28%

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

Quentin Perron, Alexandre Alexakis*

Tetrahedron: Asymmetry 19 (2008) 1871



$C_{14}H_{21}NO_2$

(*S*)-*tert*-Butyl 1-phenylpropylcarbamate

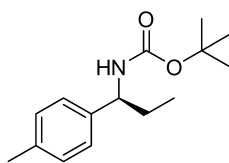
Ee = 93%

$[\alpha]_D^{20} = -53.5$ (c 1.025, $CHCl_3$)

Source of chirality: asymmetric synthesis

Quentin Perron, Alexandre Alexakis*

Tetrahedron: Asymmetry 19 (2008) 1871



$C_{15}H_{23}NO_2$

(*S*)-*tert*-Butyl 1-*p*-tolylpropylcarbamate

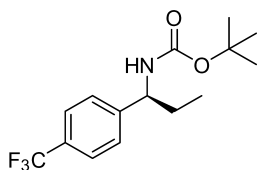
Ee = 94%

$[\alpha]_D^{20} = -60.7$ (c 1.02, $CHCl_3$)

Source of chirality: asymmetric synthesis

Quentin Perron, Alexandre Alexakis*

Tetrahedron: Asymmetry 19 (2008) 1871



$C_{15}H_{20}F_3NO_2$

(*S*)-*tert*-Butyl 1-(4-(trifluoromethyl)phenyl)propylcarbamate

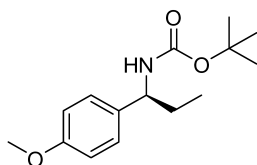
Ee = 96%

$[\alpha]_D^{20} = -41.5$ (c 0.99, $CHCl_3$)

Source of chirality: asymmetric synthesis

Quentin Perron, Alexandre Alexakis*

Tetrahedron: Asymmetry 19 (2008) 1871



$C_{15}H_{23}NO_3$

(*S*)-*tert*-Butyl 1-(4-methoxyphenyl)propylcarbamate

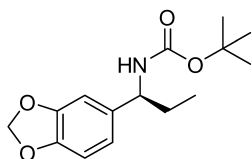
Ee = 93%

$[\alpha]_D^{20} = -70.7$ (c 0.995, $CHCl_3$)

Source of chirality: asymmetric synthesis

Quentin Perron, Alexandre Alexakis*

Tetrahedron: Asymmetry 19 (2008) 1871



$C_{15}H_{23}NO_3$

(*S*)-*tert*-Butyl 1-(benzo[*d*][1,3]dioxol-5-yl)propylcarbamate

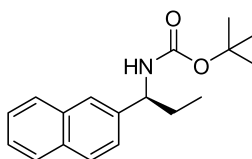
Ee = 94%

$[\alpha]_D^{20} = -63.1$ (c 0.995, $CHCl_3$)

Source of chirality: asymmetric synthesis

Quentin Perron, Alexandre Alexakis*

Tetrahedron: Asymmetry 19 (2008) 1871



$C_{18}H_{23}NO_2$

(*S*)-*tert*-Butyl 1-(naphthalen-2-yl)propylcarbamate

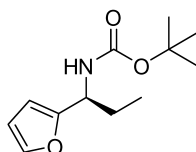
Ee = 90%

$[\alpha]_D^{20} = -58.1$ (c 1.03, $CHCl_3$)

Source of chirality: asymmetric synthesis

Quentin Perron, Alexandre Alexakis*

Tetrahedron: Asymmetry 19 (2008) 1871



$C_{12}H_{19}NO_3$

(*S*)-*tert*-Butyl 1-(furan-2-yl)propylcarbamate

Ee = 97%

$[\alpha]_D^{20} = -99.8$ (c 0.995, $CHCl_3$)

Source of chirality: asymmetric synthesis