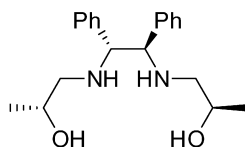


Mazhar Gilani, René Wilhelm *

Tetrahedron: Asymmetry 19 (2008) 2346



$C_{21}H_{28}N_2O_2$

(-)-(R,R)-1,2-Diphenyl-N,N'-bis((R)-2-hydroxyethyl)-3-methyl ethylenediamine

Ee = 100%

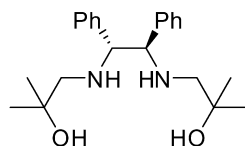
$[\alpha]_D^{22} = -30$ (c 1.0, $CHCl_3$)

Source of chirality: chiral pool

Absolute configuration: (R,R)

Mazhar Gilani, René Wilhelm *

Tetrahedron: Asymmetry 19 (2008) 2346



$C_{21}H_{32}N_2O_2$

(+)-(R,R)-1,2-Diphenyl-N,N'-bis(2-hydroxy-2-methylpropyl) ethylenediamine

Ee = 100%

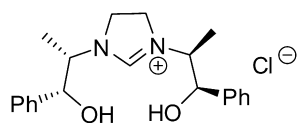
$[\alpha]_D^{22} = +13$ (c 0.5, MeOH)

Source of chirality: chiral pool

Absolute configuration: (R,R)

Mazhar Gilani, René Wilhelm *

Tetrahedron: Asymmetry 19 (2008) 2346



$C_{21}H_{27}N_2O_2Cl$

(-)-3-Bis-[(1S,2R)-2-hydroxy-1-methyl-2-phenyl-ethyl]-4,5-imidazolium chloride

Ee = 100%

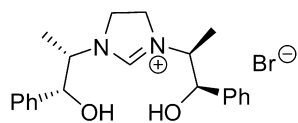
$[\alpha]_D^{22} = -16$ (c 0.4, MeOH)

Source of chirality: chiral pool

Absolute configuration: (1S,2R)

Mazhar Gilani, René Wilhelm *

Tetrahedron: Asymmetry 19 (2008) 2346



$C_{21}H_{27}N_2O_2Br$

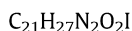
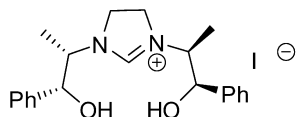
(-)-1,3-Bis-[(1S,2R)-2-hydroxy-1-methyl-2-phenyl-ethyl]-4,5-imidazolium bromide

Ee = 100%

$[\alpha]_D^{22} = -17$ (c 1.0, MeOH)

Source of chirality: chiral pool

Absolute configuration: (1S,2R)



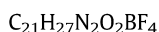
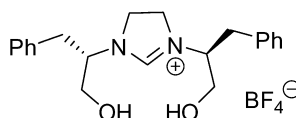
(–)-3-Bis-[(1S,2R)-2-hydroxy-1-methyl-2-phenyl-ethyl]-4,5-imidazolinium iodide

Ee = 100%

$[\alpha]_{\text{D}}^{22} = -4$ (c 0.3, MeOH)

Source of chirality: chiral pool

Absolute configuration: (1S,2R)



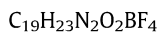
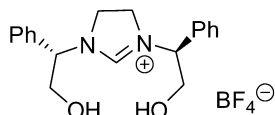
(–)-1,3-Bis[(S)-1-(hydroxymethyl)-2-methylbenzyl]-4,5-imidazolinium tetrafluoroborate

Ee = 100%

$[\alpha]_{\text{D}}^{22} = -71$ (c 1.0, CHCl₃)

Source of chirality: chiral pool

Absolute configuration: (S)



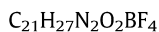
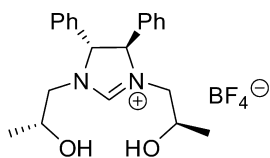
(+)-1,3-Bis[(S)-1-(hydroxymethyl)-2-methylphenyl]-4,5-imidazolinium tetrafluoroborate

Ee = 100%

$[\alpha]_{\text{D}}^{22} = +65$ (c 0.65, MeOH)

Source of chirality: chiral pool

Absolute configuration: (S)



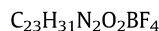
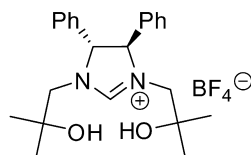
(+)-(4R,5R)-Diphenyl-1,3-bis((R)-2-hydroxyethyl)-3-methyl-4,5-dihydro-3H-imidazolinium tetrafluoroborate

Ee = 100%

$[\alpha]_{\text{D}}^{22} = +51$ (c 1.2, CHCl₃)

Source of chirality: chiral pool

Absolute configuration: (4R,5R)



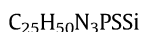
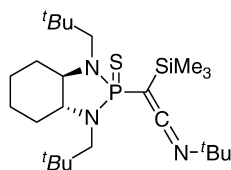
(+)-(4*R*,5*R*)-Diphenyl-1,3-bis(2-hydroxy-2-methylpropyl)-4,5-dihydro-3*H*-imidazolinium tetrafluoroborate

Ee = 100%

$[\alpha]_{\text{D}}^{22} = +150$ (c 1.1, MeOH)

Source of chirality: chiral pool

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

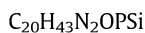
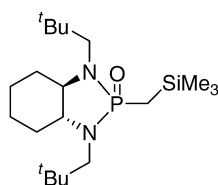


(3*aR*,7*aR*)-2-(2'-*tert*-Butylimino-1'-trimethylsilyl-ethen-1'-yl)-1,3-dineopentylperhydro-1,3,2- λ^5 -benzodiazaphosphol-2-thione

$[\alpha]_{\text{D}} = -42.9$ (c 0.89, CH₂Cl₂)

Source of chirality: (1*R*,2*R*)-cyclohexane-*trans*-1,2-diamine

Absolute configuration: (3*aR*,7*aR*)

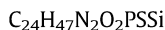
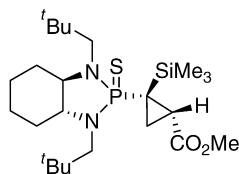


(3*aR*,7*aR*)-2-[(Trimethylsilyl)methyl]-1,3-dineopentylperhydro-1,3,2- λ^5 -benzodiazaphosphol-2-one

$[\alpha]_{\text{D}} = -38.2$ (c 2.20, CH₂Cl₂)

Source of chirality: (1*R*,2*R*)-cyclohexane-*trans*-1,2-diamine

Absolute configuration: (3*aR*,7*aR*)



(3*aR*,7*aR*,1'*S*,2'*S*)-2-(2'-Methoxycarbonyl-1'-trimethylsilylcycloprop-1'-yl)-1,3-dineopentylperhydro-1,3,2- λ^5 -benzodiazaphosphol-2-thione

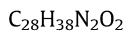
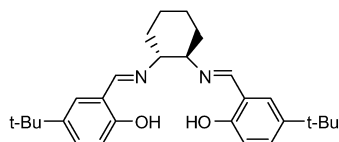
$[\alpha]_{\text{D}} = -33.3$ (c 2.20, CH₂Cl₂)

Source of chirality: (1*R*,2*R*)-cyclohexane-*trans*-1,2-diamine and asymmetric synthesis

Absolute configuration: (3*aR*,7*aR*,1'*S*, 2'*S*)

Qigan Cheng, Fanguo Deng, Chungu Xia *, Wei Sun *

Tetrahedron: Asymmetry 19 (2008) 2359



(*R,R*)-*N,N'*-Bis(5-*tert*-butyl-salicylidene)-1,2-cyclohexanediamine

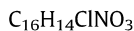
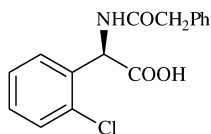
$[\alpha]_D^{20} = -206$ (c 0.0142, CH_2Cl_2)

Absolute configuration: (*R,R*)

Source of chirality: L-Tartaric acid resolution

Nitin W. Fadnavis *, Avala Vedamayee Devi, Lakshmi Swarnalatha Jasti

Tetrahedron: Asymmetry 19 (2008) 2363



(*2R*)-2-(2-Chlorophenyl)-2-[(2-phenylacetyl)amino]ethanoic acid

Ee >99%

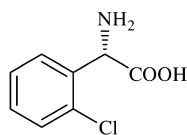
$[\alpha]_D^{25} = -96$ (c 1, $CHCl_3$)

Source of chirality: enzymatic resolution

Absolute configuration: (*R*)

Nitin W. Fadnavis *, Avala Vedamayee Devi, Lakshmi Swarnalatha Jasti

Tetrahedron: Asymmetry 19 (2008) 2363



(*2S*)-2-Amino-2-(2-chlorophenylacetyl)ethanoic acid

Ee >99%

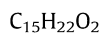
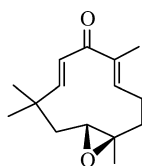
$[\alpha]_D^{25} = 89$ (c 1, 1 M HCl)

Source of chirality: enzymatic resolution

Absolute configuration: (*S*)

Takashi Kitayama *, Masataka Awata, Yasushi Kawai, Azusa Tsuji, Yasuhiko Yoshida

Tetrahedron: Asymmetry 19 (2008) 2367



(*6R,7R*)-6,7-Epoxy-2,6,9,9-tetramethyl-2,10-cycloundecadien-1-one

Ee = 92%

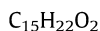
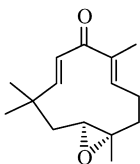
$[\alpha]_D^{23.5} = +7.8$ (c 1.00, $CHCl_3$)

Source of chirality: lipase resolution

Absolute configuration: (*6R,7R*)

Takashi Kitayama *, Masataka Awata, Yasushi Kawai, Azusa Tsuji, Yasuhiko Yoshida

Tetrahedron: Asymmetry 19 (2008) 2367



(6S,7S)-6,7-Epoxy-2,6,9,9-tetramethyl-2,10-cycloundecadien-1-one

Ee = 99.5%

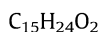
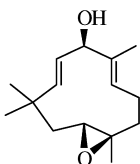
$[\alpha]_D^{23.5} = -9.7$ (c 1.00, $CHCl_3$)

Source of chirality: lipase resolution

Absolute configuration: (6S,7S)

Takashi Kitayama *, Masataka Awata, Yasushi Kawai, Azusa Tsuji, Yasuhiko Yoshida

Tetrahedron: Asymmetry 19 (2008) 2367



(1R,6R,7R)-6,7-Epoxy-2,6,9,9-tetramethyl-2,10-cycloundecadien-1-ol

Ee = 92%

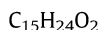
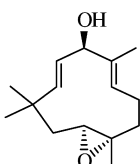
$[\alpha]_D^{23.5} = -43.1$ (c 1.01, $CHCl_3$)

Source of chirality: lipase resolution

Absolute configuration: (1R,6R,7R)

Takashi Kitayama *, Masataka Awata, Yasushi Kawai, Azusa Tsuji, Yasuhiko Yoshida

Tetrahedron: Asymmetry 19 (2008) 2367



(1R,6S,7S)-6,7-Epoxy-2,6,9,9-tetramethyl-2,10-cycloundecadien-1-ol

Ee = 99.6%

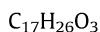
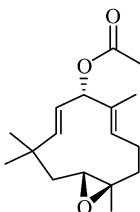
$[\alpha]_D^{23.5} = +82.4$ (c 1.01, $CHCl_3$)

Source of chirality: lipase resolution

Absolute configuration: (1R,6S,7S)

Takashi Kitayama *, Masataka Awata, Yasushi Kawai, Azusa Tsuji, Yasuhiko Yoshida

Tetrahedron: Asymmetry 19 (2008) 2367



(1S,6R,7R)-1-Acetoxy-6,7-epoxy-2,6,9,9-tetramethyl-2,10-cycloundecadiene

Ee = 34%

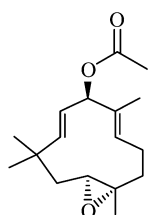
$[\alpha]_D^{23.5} = -31.4$ (c 1.02, $CHCl_3$)

Source of chirality: lipase resolution

Absolute configuration: (1S,6R,7R)

Takashi Kitayama *, Masataka Awata, Yasushi Kawai, Azusa Tsuji, Yasuhiko Yoshida

Tetrahedron: Asymmetry 19 (2008) 2367



$C_{17}H_{26}O_3$

(1S,6S,7S)-1-Acetoxy-6,7-epoxy-2,6,9,9-tetramethyl-2,10-cycloundecadiene

Ee = 87%

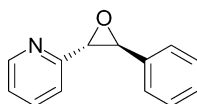
$[\alpha]_D^{23.5} = +5.1$ (c 1.01, $CHCl_3$)

Source of chirality: lipase resolution

Absolute configuration: (1S,6S,7S)

Ewold W. Dijk, Ben L. Feringa *, Gerard Roelfes *

Tetrahedron: Asymmetry 19 (2008) 2374



$C_{13}H_{11}NO$

trans-2-[(2S,3S)-3-Phenyloxiranyl]pyridine

Ee = >95% ee

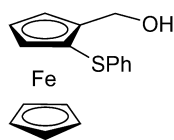
$[\alpha]_D^{20} = -275$ (c 3×10^{-3} , EtOH)

Source of chirality: preparative chiral HPLC

Absolute configuration: (2S,3S)

Mounia Merabet-Khelassi, Louisa Aribi-Zouiouche *, Olivier Riant *

Tetrahedron: Asymmetry 19 (2008) 2378



$C_{17}H_{16}FeOS$

(S_{Fc})-2-Hydroxymethyl-1-phenylthio-ferrocene

Ee = 99%

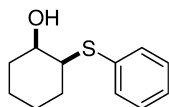
$[\alpha]_D = -56.2$ (c 1, CH_2Cl_2)

Absolute configuration: (S_{Fc})

Source of chirality: asymmetric synthesis

Leandro Piovan, Edna Kagohara, Luis C. Ricci, Artur F. Keppler, Marina Capelari,
Leandro H. Andrade, João V. Comasseto, André L. M. Porto *

Tetrahedron: Asymmetry 19 (2008) 2385



$C_{12}H_{16}OS$

(+)-cis-(1R,2S)-2-(Phenylthio)-1-cyclohexanol

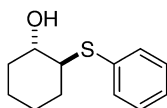
Ee = >98%

$[\alpha]_D^{25} = +19.7$ (c 0.42, CH_2Cl_2)

Absolute configuration: (1R,2S)

Leandro Piovan, Edna Kagohara, Luis C. Ricci, Artur F. Keppler, Marina Capelari, Leandro H. Andrade, João V. Comasseto, André L. M. Porto*

Tetrahedron: Asymmetry 19 (2008) 2385



$C_{12}H_{16}OS$

(+)-*trans*-(1*S*,2*S*)-2-(Phenylthio)-1-cyclohexanol

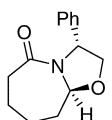
Ee = >98%

$[\alpha]_D^{25} = +61.0$ (c 0.44, CH_2Cl_2)

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

Alexis Bouet, Sylvain Oudeyer*, Georges Dupas, Francis Marsais, Vincent Levacher*

Tetrahedron: Asymmetry 19 (2008) 2396



$C_{14}H_{17}NO_2$

(3*R*,9*aS*)-Hexahydro-3-phenyloxazolo[3,2-*a*]azepin-5(6*H*)-one

De >95%

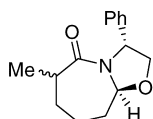
$[\alpha]_D^{20} = -59.1$ (c 1.15, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Absolute configuration: (3*R*,9*aS*)

Alexis Bouet, Sylvain Oudeyer*, Georges Dupas, Francis Marsais, Vincent Levacher*

Tetrahedron: Asymmetry 19 (2008) 2396



$C_{15}H_{19}NO_2$

[3*R*,6(*R,S*),9*aS*]-6-Methyl-3-phenyl-2,3,6,7,8,9-hexahydrooxazolo[3,2-*a*]azepin-5(9*aH*)-one

De >95%

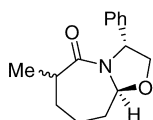
$[\alpha]_D^{20} = -22.6$ (c 1.15, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: [3*R*,6(*R,S*),9*aS*]

Alexis Bouet, Sylvain Oudeyer*, Georges Dupas, Francis Marsais, Vincent Levacher*

Tetrahedron: Asymmetry 19 (2008) 2396



$C_{15}H_{19}NO_2$

[3*R*,6(*R,S*),9*aS*]-6-Methyl-3-phenyl-2,3,6,7,8,9-hexahydrooxazolo[3,2-*a*]azepin-5(9*aH*)-one

De >95%

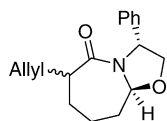
$[\alpha]_D^{20} = -60.0$ (c 0.2, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: [3*R*,6(*R,S*),9*aS*]

Alexis Bouet, Sylvain Oudeyer *, Georges Dupas, Francis Marsais, Vincent Levacher *

Tetrahedron: Asymmetry 19 (2008) 2396



$C_{17}H_{21}NO_2$

[3R,6(R,S),9aS]-6-Allyl-3-phenyl-2,3,6,7,8,9-hexahydrooxazolo[3,2-a]azepin-5(9aH)-one

De >95%

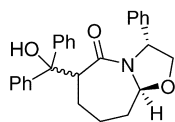
$[\alpha]_D^{20} = -70.0$ (c 0.3, $CHCl_3$).

Source of chirality: asymmetric synthesis

Absolute configuration: [3R,6(R,S),9aS]

Alexis Bouet, Sylvain Oudeyer *, Georges Dupas, Francis Marsais, Vincent Levacher *

Tetrahedron: Asymmetry 19 (2008) 2396



$C_{27}H_{27}NO_3$

[3R,6(R,S),9aS]-6-(Hydroxydiphenylmethyl)-3-phenyl-2,3,6,7,8,9-hexahydro-oxazolo[3,2-a]azepin-5(9aH)-one

De >95%

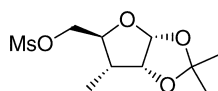
$[\alpha]_D^{20} = -37.5$ (c 1.0, $CHCl_3$)

Source of chirality: asymmetric synthesis

Absolute configuration: [3R,6(R,S),9aS]

G. Jayachitra, Ravi Kumar Anchoori, B. Venkateswara Rao *

Tetrahedron: Asymmetry 19 (2008) 2402



$C_{10}H_{18}O_6S$

(3aR,5S,6R,6aR)-2,2,6-Trimethylperhydrofuro[2,3-d][1,3]dioxol-5-yl)methylmethanesulfonate

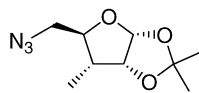
$[\alpha]_D^{30} = +29.7$ (c 1.32, $CHCl_3$)

Source of chirality: D-glucose

Absolute configuration: (3aR,5S,6R,6aR)

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$C_9H_{15}N_3O_3$

(3aR,5S,6R,6aR)-5-(Azidomethyl)-dihydro-2,2,6-trimethyl-5H-furo[2,3-d][1,3]dioxole

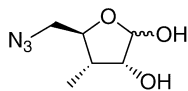
$[\alpha]_D^{30} = +62.0$ (c 0.34, $CHCl_3$)

Source of chirality: D-glucose

Absolute configuration: (3aR,5S,6R,6aR)

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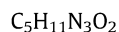
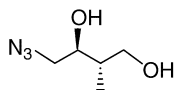


(3R,4S,5S)-5-(Azidomethyl)-4-methyltetrahydrofuran-2,3-diol

$[\alpha]_D^{30} = +88.0$ (c 1.86, $CHCl_3$)
Source of chirality: D-glucose
Absolute configuration: (3R,4S,5S)

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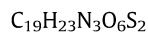
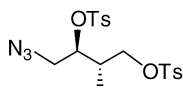


(2S,3S)-4-Azido-2-methylbutane-1,3-diol

$[\alpha]_D^{30} = +35.6$ (c 1.73, $CHCl_3$)
Source of chirality: D-glucose
Absolute configuration: (2S,3S)

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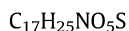
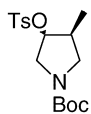


(2S,3S)-4-Azido-2-methyl-3(4-methyl phenylsulfonyloxy)butyl-4-methyl-1-benzene sulfonate

$[\alpha]_D^{30} = -22.0$ (c 1.44, $CHCl_3$)
Source of chirality: D-glucose
Absolute configuration: (2S,3S)

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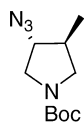


(3S,4S)-1-tert-Butoxycarbonyl-3-(4-methylphenylsulfonyloxy)-4-methyl pyrrolidine

$[\alpha]_D^{30} = -7.4$ (c 0.40, $CHCl_3$)
Source of chirality: D-glucose
Absolute configuration: (3S,4S)

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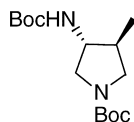
$C_{10}H_{18}N_4O_2$

(3R,4S)-3-Azido-1-tert-butoxycarbonyl-4-methyl pyrrolidine

$[\alpha]_D^{30} = +34.2$ (c 1.31, $CHCl_3$)
Source of chirality: D-glucose
Absolute configuration: (3R,4S)

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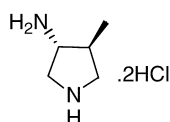
$C_{15}H_{28}N_2O_4$

(3R,4S)-1-tert-Butoxycarbonyl-3-tert-butoxycarbonylamino-4-methylpyrrolidine

$[\alpha]_D^{30} = +36.7$ (c 1.86, $CHCl_3$)
Source of chirality: D-glucose
Absolute configuration: (3R,4S)

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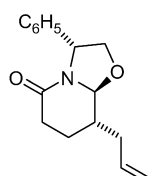
$C_5H_{14}Cl_2N_2$

(3R,4S)-3-Amino-4-methylpyrrolidine dihydrochloride

$[\alpha]_D^{30} = +15.3$ (c 0.19, MeOH)
Source of chirality: D-glucose
Absolute configuration: (3R,4S)

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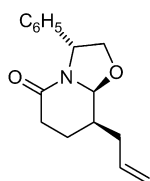
$C_{16}H_{19}NO_2$

(3R,8S,8aS)-8-Allyl-5-oxo-3-phenyl-2,3,6,7,8,8a-hexahydro-5H-oxazolo[3,2-a]pyridine

$[\alpha]_D^{22} = -59.9$ (c 1.06, EtOH)
Source of chirality: (R)-phenylglycinol
Absolute configuration: (3R,8S,8aS)

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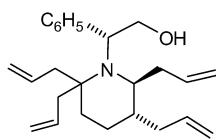
$C_{16}H_{19}NO_2$

(3R,8R,8aS)-8-Allyl-5-oxo-3-phenyl-2,3,6,7,8,8a-hexahydro-5H-oxazolo[3,2-a]pyridine

$[\alpha]_D^{22} = -118.9$ (c 1.0, $CHCl_3$)
Source of chirality: (R)-phenylglycinol
Absolute configuration: (3R,8R,8aS)

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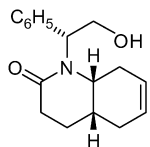
$C_{25}H_{35}NO$

(5S,6S)-2,2,5,6-Tetraallyl-1-[(1R)-2-hydroxy-1-phenylethyl]piperidine

$[\alpha]_D^{22} = +33.7$ (c 1.5, $CHCl_3$)
Source of chirality: (R)-phenylglycinol
Absolute configuration: (5S,6S)

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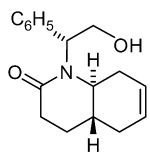
$C_{17}H_{21}NO_2$

(4aS,8aR)-1-[(1R)-2-Hydroxy-1-phenylethyl]-3,4,4a,5,8,8a-hexahydro-1H-quinolin-2-one

$[\alpha]_D^{22} = -39.6$ (c 1.2, $CHCl_3$)
Source of chirality: (R)-phenylglycinol
Absolute configuration: (1R,4aS,8aR)

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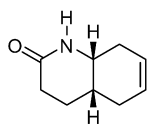
$C_{17}H_{21}NO_2$

(4aS,8aS)-1-[(1R)-2-Hydroxy-1-phenylethyl]-3,4,4a,5,8,8a-hexahydro-1H-quinolin-2-one

$[\alpha]_D^{22} = +256.0$ (c 0.8, $CHCl_3$)
Source of chirality: (R)-phenylglycinol
Absolute configuration: (1R,4aS,8aS)

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C₉H₁₃NO

(4a*S*,8a*R*)-3,4,4a,5,8,8a-Hexahydro-1*H*-quinolin-2-one

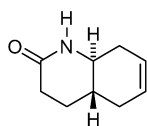
$[\alpha]_D^{22} = -33.9$ (c 0.9, CHCl₃)

Source of chirality: (*R*)-phenylglycinol

Absolute configuration: (4a*S*,8a*R*)

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C₉H₁₃NO

(4a*S*,8a*S*)-3,4,4a,5,8,8a-Hexahydro-1*H*-quinolin-2-one

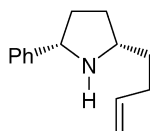
$[\alpha]_D^{22} = +186.5$ (c 1.7, CHCl₃)

Source of chirality: (*R*)-phenylglycinol

Absolute configuration: (4a*S*,8a*S*)

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C₁₄H₁₉N

(2*S*,5*S*)-2-But-3-en-1-yl-5-phenylpyrrolidine

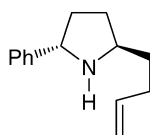
$[\alpha]_D^{30} = -27.7$ (c 2.09, CHCl₃)

Source of chirality: (*R*)-(-)-2-phenylglycinol

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

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C₁₄H₁₉N

(2*R*,5*S*)-2-But-3-en-1-yl-5-phenylpyrrolidine

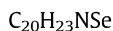
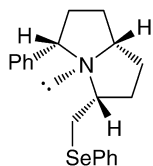
$[\alpha]_D^{23} = -48.9$ (c 1.65, CHCl₃)

Source of chirality: (*R*)-(-)-2-phenylglycinol

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

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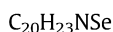
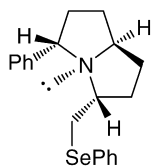


(3S,5R,7aR)-3-Phenyl-5-[(phenylseleno)methyl]hexahydro-1H-pyrrolizine

$[\alpha]_D^{30} = -11.2$ (c 1.05, $CHCl_3$)
Source of chirality: (R)-(-)-2-phenylglycinol
Absolute configuration: (3S,5R,7aR)

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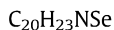
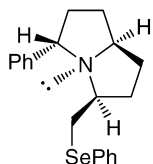


(3S,5R,7aS)-3-Phenyl-5-[(phenylseleno)methyl]hexahydro-1H-pyrrolizine

$[\alpha]_D^{21} = -16.7$ (c 0.89, $CHCl_3$)
Source of chirality: (R)-(-)-2-phenylglycinol
Absolute configuration: (3S,5R,7aS)

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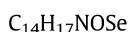
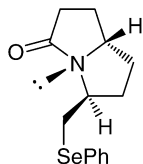


(3S,5S,7aS)-3-Phenyl-5-[(phenylseleno)methyl]hexahydro-1H-pyrrolizine

$[\alpha]_D^{18} = -21.6$ (c 0.68, $CHCl_3$)
Source of chirality: (R)-(-)-2-phenylglycinol
Absolute configuration: (3S,5S,7aS)

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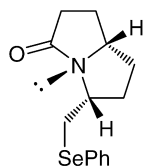


(5S,7aS)-5-[(Phenylseleno)methyl]hexahydro-3H-pyrrolizin-3-one

$[\alpha]_D^{22} = -83.6$ (c 1.42, $CHCl_3$)
Source of chirality: (5R)-(-)-5-(hydroxymethyl)pyrrolidin-2-one
Absolute configuration: (5S,7aS)

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$C_{14}H_{17}NOSe$

(5*R*,7*aS*)-5-[(Phenylseleno)methyl]hexahydro-3*H*-pyrrolizin-3-one

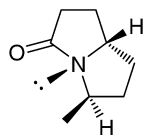
$[\alpha]_D^{23} = -6.9$ (c 0.68, $CHCl_3$)

Source of chirality: (5*R*)-(-)-5-(hydroxymethyl)pyrrolidin-2-one

Absolute configuration: (5*R*,7*aS*)

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$C_8H_{13}NO$

(5*R*,7*aS*)-5-Methylhexahydro-3*H*-pyrrolizin-3-one

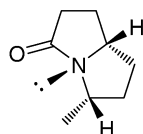
$[\alpha]_D^{23} = -57.2$ (c 2.49, $CHCl_3$)

Source of chirality: (5*R*)-(-)-5-(hydroxymethyl)pyrrolidin-2-one

Absolute configuration: (5*R*,7*aS*)

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$C_8H_{13}NO$

(5*S*,7*aS*)-5-Methylhexahydro-3*H*-pyrrolizin-3-one

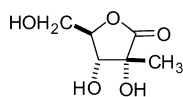
$[\alpha]_D^{22} = +4.6$ (c 1.71, $CHCl_3$)

Source of chirality: (5*R*)-(-)-5-(hydroxymethyl)pyrrolidin-2-one

Absolute configuration: (5*S*,7*aS*)

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$C_6H_{10}O_5$

2-C-Methyl-D-ribo-1,4-lactone

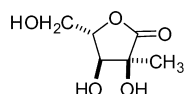
Ee = 100%

$[\alpha]_D^{20} = +87.6$ (c 0.9, H_2O)

Source of chirality: D-glucose as starting material

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2-C-Methyl-L-ribo-1,4-lactone

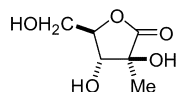
Ee = 100%

$[\alpha]_{\text{D}}^{20} = -87.6$ (c 0.8, H₂O)

Source of chirality: L-glucose as starting material

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2-C-Methyl-D-arabinono-1,4-lactone

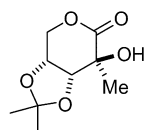
Ee = 100%

$[\alpha]_{\text{D}}^{22} = +77.5$ (c 1.0, H₂O)

Source of chirality: D-erythronolactone as starting material

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3,4-O-Isopropylidene-2-C-methyl-D-arabinono-1,5-lactone

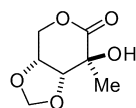
Ee = 100%

$[\alpha]_{\text{D}}^{22} = -124.7$ (c 1.0, CHCl₃)

Source of chirality: D-erythronolactone as starting material

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Nigel A. Jones, Alexander C. Weymouth-Wilson, Robert Clarkson, Thomas Heinz,
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3,4-O-Methylidene-2-C-methyl-D-arabinono-1,5-lactone

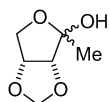
Ee = 100%

$[\alpha]_{\text{D}}^{21} = -126$ (c 1.0, CHCl₃)

Source of chirality: D-erythronolactone as starting material

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1-Deoxy-3,4-O-methylidene-D-ribose

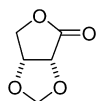
Ee = 100%

$[\alpha]_{\text{D}}^{21} = -61$ (c 1.0, CHCl_3)

Source of chirality: D-erythronolactone as starting material

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2,3-O-Methylidene-D-erythrono-1,4-lactone

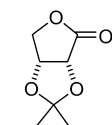
Ee = 100%

$[\alpha]_{\text{D}}^{21} = -120$ (c 1.0, CHCl_3)

Source of chirality: D-erythronolactone as starting material

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2,3-O-Isopentylidene-D-erythrono-1,4-lactone

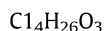
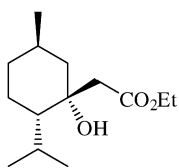
Ee = 100%

$[\alpha]_{\text{D}}^{23} = -113$ (c 1.0, CHCl_3)

Source of chirality: D-erythronolactone as starting material

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(1R,3R,4S)-3-Ethoxycarbonylmethyl-p-menthan-3-ol

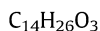
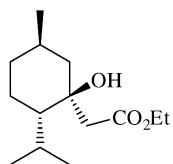
$[\alpha]_{\text{D}}^{20} = -14.8$ (c 1, CHCl_3)

Source of chirality: (-)-menthone

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

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(1R,3S,4S)-3-Ethoxycarbonylmethyl-*p*-menthan-3-ol

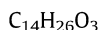
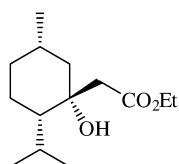
$[\alpha]_D^{20} = -17.4$ (c 1, $CHCl_3$)

Source of chirality: (–)-menthone

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

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(1S,3R,4S)-3-Ethoxycarbonylmethyl-*p*-menthan-3-ol

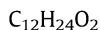
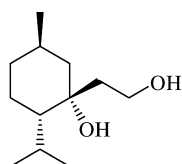
$[\alpha]_D^{20} = -25.1$ (c 2, $CHCl_3$)

Source of chirality: (–)-isomenthone

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

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(1R,3R,4S)-3-(2'-Hydroxyethyl)-*p*-menthan-3-ol

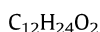
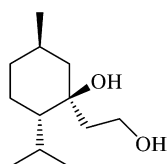
$[\alpha]_D^{20} = -16$ (c 2, $CHCl_3$)

Source of chirality: (–)-menthone

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

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(1R,3S,4S)-3-(2'-Hydroxyethyl)-*p*-menthan-3-ol

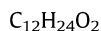
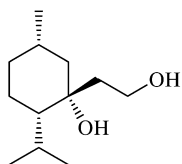
$[\alpha]_D^{20} = -33.4$ (c 2, $CHCl_3$)

Source of chirality: (–)-menthone

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

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(1S,3R,4S)-3-(2'-Hydroxyethyl)-p-menthan-3-ol

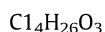
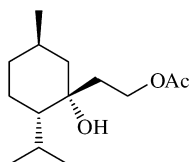
$[\alpha]_D^{20} = -28.6$ (c 1, $CHCl_3$)

Source of chirality: (–)-isomenthone

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

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(1R,3R,4S)-3-(2'-Acetoxyethyl)-p-menthan-3-ol

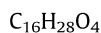
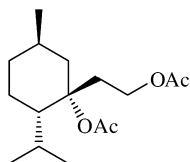
$[\alpha]_D^{20} = -2.9$ (c 2, $CHCl_3$)

Source of chirality: (–)-menthone

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

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(1R,3R,4S)-3-(2'-Acetoxyethyl)-p-menthan-3-ol acetate

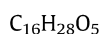
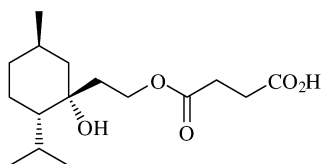
$[\alpha]_D^{20} = +10.9$ (c 1.5, $CHCl_3$)

Source of chirality: (–)-menthone

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

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(1R,3R,4S)-3-(2'-Carboxypropionyloxy-ethyl)-p-menthan-3-ol

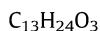
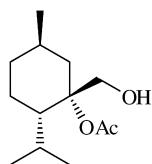
$[\alpha]_D^{20} = -4.2$ (c 2, $CHCl_3$)

Source of chirality: (–)-menthone

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

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(1R,3S,4S)-3-(Hydroxymethyl)-p-menthan-3-ol acetate

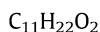
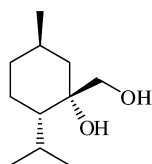
$[\alpha]_D^{20} = -4.8$ (c 2, $CHCl_3$)

Source of chirality: (–)-menthone

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

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(1R,3S,4S)-3-(Hydroxymethyl)-p-menthan-3-ol

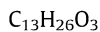
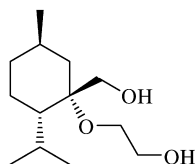
$[\alpha]_D^{20} = -6.7$ (c 2, $CHCl_3$)

Source of chirality: (–)-menthone

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

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(1R,3S,4S)-3-(Hydroxymethyl)-3-(2'-Hydroxyethoxyl)-p-menthane

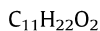
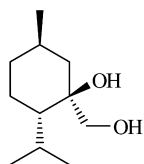
$[\alpha]_D^{20} = -3.3$ (c 2, $CHCl_3$)

Source of chirality: (–)-menthone

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

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(1R,3R,4S)-3-(Hydroxymethyl)-p-menthan-3-ol

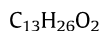
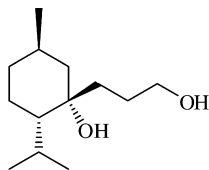
$[\alpha]_D^{20} = -19.6$ (c 1, $CHCl_3$)

Source of chirality: (–)-menthone

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

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(1R,3S,4S)-3-(3'-Hydroxypropyl)-p-menthan-3-ol

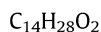
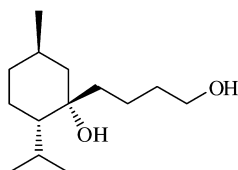
$$[\alpha]_D^{20} = +4.2 \text{ (c 1, CHCl}_3\text{)}$$

Source of chirality: (–)-menthone

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

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(1R,3S,4S)-3-(4'-Hydroxybutyl)-p-menthan-3-ol

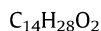
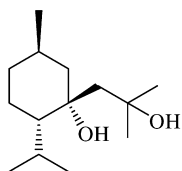
$$[\alpha]_D^{20} = +5.9 \text{ (c 2, CHCl}_3\text{)}$$

Source of chirality: (–)-menthone

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

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(1R,3R,4S)-3-(2'-Hydroxy-2'-methylpropyl)-p-menthan-3-ol

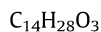
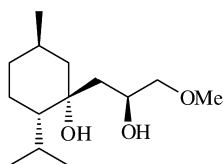
$$[\alpha]_D^{20} = -45.0 \text{ (c 2, CHCl}_3\text{)}$$

Source of chirality: (–)-menthone

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

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(1R,3R,4S,2'S)-3-(2'-Hydroxy-3'-methoxypropyl)-p-menthan-3-ol

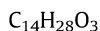
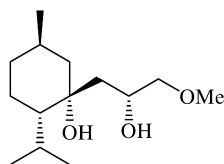
$$[\alpha]_D^{20} = -15.8 \text{ (c 2, CHCl}_3\text{)}$$

Source of chirality: (–)-menthone

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

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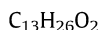
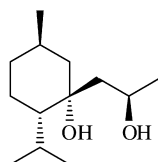


(1R,3R,4S,2'R)-3-(2'-Hydroxy-3'-methoxypropyl)-p-menthan-3-ol

$[\alpha]_D^{20} = -10.1$ (c 2, $CHCl_3$)
Source of chirality: (–)-menthone
Absolute configuration: (1R,3R,4S,2'R)

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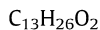
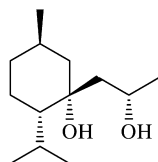


(1R,3R,4S,2'R)-3-(2'-Hydroxypropyl)-p-menthan-3-ol

$[\alpha]_D^{20} = -29.7$ (c 2, $CHCl_3$)
Source of chirality: (–)-menthone
Absolute configuration: (1R,3R,4S,2'R)

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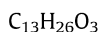
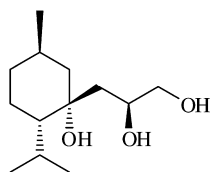


(1R,3R,4S,2'S)-3-(2'-Hydroxypropyl)-p-menthan-3-ol

$[\alpha]_D^{20} = +9.4$ (c 2, $CHCl_3$)
Source of chirality: (–)-menthone
Absolute configuration: (1R,3R,4S,2'S)

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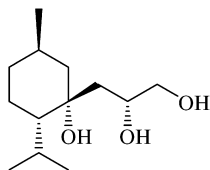


(1R,3R,4S,2'S)-3-(2',3'-Dihydroxypropyl)-p-menthan-3-ol

$[\alpha]_D^{20} = -17.0$ (c 1, $CHCl_3$)
Source of chirality: (–)-menthone
Absolute configuration: (1R,3R,4S,2'S)

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C₁₃H₂₆O₃

(1R,3R,4S,2'R)-3-(2',3'-Dihydroxypropyl)-p-menthan-3-ol

$[\alpha]_{\text{D}}^{20} = -4.3$ (c 1, CHCl₃)

Source of chirality: (–)-menthone

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