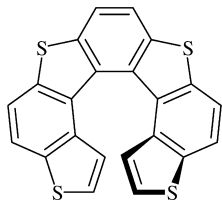


Stereochemistry abstracts

Hiroko Nakagawa*, Masashi Moriyama, Tomoko Umahashi, Yuichi Masuoka, Koh-ichi Yamada

Tetrahedron: Asymmetry 20 (2009) 1715



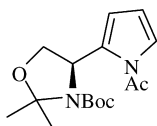
$C_{22}H_{10}S_4$

(*M*)-Bisthieno[3',2':4,5]benzo[1,2-b:4,3-b']di[1]benzothiophene

$[\alpha]_{500}^{21} = -2100$ ($c = 0.19$, $CHCl_3$)
Source of chirality: X-ray crystallography
Absolute configuration: (*M*)

Kaushik Sarkar, Sovan K. Singha, Shital K. Chattopadhyay*

Tetrahedron: Asymmetry 20 (2009) 1719



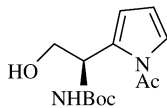
$C_{16}H_{24}N_2O_4$

(*R*)-*tert*-Butyl 4-(1-acetyl-1*H*-pyrrol-2-yl)-2,2-dimethyloxazolidine-3-carboxylate

$[\alpha]_D = -13$ (c 1.0, $CHCl_3$)
Source of chirality: *L*-serine
Absolute configuration: (*4R*)

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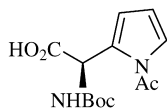
$C_{13}H_{20}N_2O_4$

(*R*)-*tert*-Butyl 1-(1-acetyl-1*H*-pyrrol-2-yl)-2-hydroxyethylcarbamate

$[\alpha]_D = -50$ (c 1.0, $CHCl_3$)
Source of chirality: *L*-serine
Absolute configuration: (*1R*)

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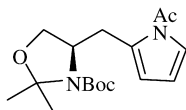
$C_{13}H_{18}N_2O_5$

(*R*)-2-(1-Acetyl-1*H*-pyrrol-2-yl)-2-(*tert*-butoxycarbonyl)acetic acid

$[\alpha]_D = -106$ (c 1.0, $CHCl_3$)
Source of chirality: *L*-serine
Absolute configuration: (*2R*)

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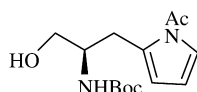
$C_{17}H_{26}N_2O_4$

(*R*)-*tert*-Butyl 4-((1-acetyl-1*H*-pyrrol-2-yl)methyl)-2,2-dimethyloxazolidine-3-carboxylate

$[\alpha]_D = +56$ (c 1.0, $CHCl_3$)
Source of chirality: L-aspartic acid
Absolute configuration: (4*R*)

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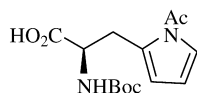
$C_{14}H_{22}N_2O_4$

(*R*)-*tert*-Butyl 3-(1-acetyl-1*H*-pyrrol-2-yl)-1-hydroxypropan-2-ylcarbamate

$[\alpha]_D = -38$ (c 1.0, $CHCl_3$)
Source of chirality: L-aspartic acid
Absolute configuration: (2*R*)

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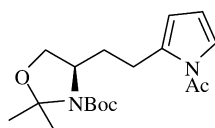
$C_{14}H_{20}N_2O_5$

(*R*)-3-(1-Acetyl-1*H*-pyrrol-2-yl)-2-(*tert*-butoxycarbonyl)propanoic acid

$[\alpha]_D = +16$ (c 1.0, $CHCl_3$)
Source of chirality: L-aspartic acid
Absolute configuration: (2*R*)

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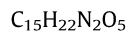
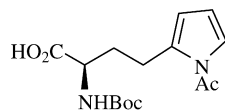
$C_{18}H_{28}N_2O_4$

(*R*)-*tert*-Butyl 4-(2-(1-acetyl-1*H*-pyrrol-2-yl)ethyl)-2,2-dimethyloxazolidine-3-carboxylate

$[\alpha]_D = +18$ (c 1.0, $CHCl_3$)
Source of chirality: L-glutamic acid
Absolute configuration: (4*R*)

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(*R*)-4-(1-Acetyl-1*H*-pyrrol-2-yl)-2-(*tert*-butoxycarbonyl)butanoic acid

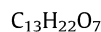
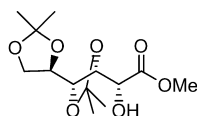
$[\alpha]_D = -62$ (c 1.0, $CHCl_3$)

Source of chirality: *L*-glutamic acid

Absolute configuration: (2*R*)

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(*R*)-Methyl 2-hydroxy-2-((4*R*,4'*R*,5*R*)-2,2,2',2'-tetramethyl-4,4'-bi(1,3-dioxolan)-5-yl)acetate

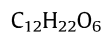
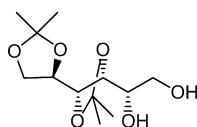
$[\alpha]_D^{25} = +10.2$ (c 1.0, $CHCl_3$)

Source of chirality: stereoselective synthesis

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

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(*S*)-1-((4*R*,4'*R*,5*R*)-2,2,2',2'-Tetramethyl-4,4'-bi(1,3-dioxolan)-5-yl)ethane-1,2-diol

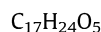
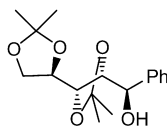
$[\alpha]_D^{25} = +7.2$ (c 1.75, $CHCl_3$)

Source of chirality: stereoselective synthesis

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

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(*R*)-Phenyl((4*R*,4'*R*,5*R*)-2,2,2',2'-tetramethyl-4,4'-bi(1,3-dioxolan)-5-yl)methanol

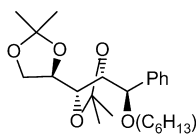
$[\alpha]_D^{25} = +15.8$ (c 1.0, $CHCl_3$)

Source of chirality: stereoselective synthesis

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

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C₂₃H₃₆O₅

(4*R*,4'*R*,5*R*)-5-((*R*)-Hexyloxy(phenyl)methyl)-2,2,2',2'-tetramethyl-4,4'-bi(1,3-dioxolane)

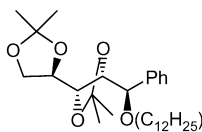
$[\alpha]_D^{25} = +29.3$ (c 7.85, CHCl₃)

Source of chirality: stereoselective synthesis

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

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C₂₉H₄₈O₅

(4*R*,4'*R*,5*R*)-5-((*R*)-Dodecyloxy(phenyl)methyl)-2,2,2',2'-tetramethyl-4,4'-bi(1,3-dioxolane)

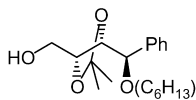
$[\alpha]_D^{25} = +26.5$ (c 4.1, CHCl₃)

Source of chirality: stereoselective synthesis

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

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C₁₉H₃₀O₄

((4*R*,5*R*)-5-((*R*)-Hexyloxy(phenyl)methyl)-2,2-dimethyl-1,3-dioxolan-4-yl)methanol

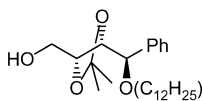
$[\alpha]_D^{25} = +43.9$ (c 1.65, CHCl₃)

Source of chirality: stereoselective synthesis

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

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C₂₅H₄₂O₄

((4*R*,5*R*)-5-((*R*)-Dodecyloxy(phenyl)methyl)-2,2-dimethyl-1,3-dioxolan-4-yl)methanol

$[\alpha]_D^{25} = +31.5$ (c 1.40, CHCl₃)

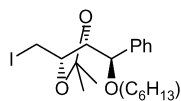
Source of chirality: stereoselective synthesis

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

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$[\alpha]_D^{25} = +53.2$ (c 1.75, CHCl₃)
Source of chirality: stereoselective synthesis
Absolute configuration: (4R,4'R,5R)



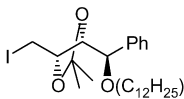
C₁₉H₂₉I O₃

(4R,5S)-4-((R)-Hexyloxy(phenyl)methyl)-5-(iodomethyl)-2,2-dimethyl-1,3-dioxolane

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$[\alpha]_D^{25} = +33.3$ (c 0.90, CHCl₃)
Source of chirality: stereoselective synthesis
Absolute configuration: (4R,4'R,5R)



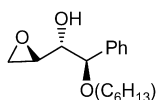
C₂₅H₄₁I O₃

(4R,5S)-4-((R)-Dodecyloxy(phenyl)methyl)-5-(iodomethyl)-2,2-dimethyl-1,3-dioxolane

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$[\alpha]_D^{25} = +28.0$ (c 0.25, CHCl₃)
Source of chirality: stereoselective synthesis
Absolute configuration: (4R,4'R,5R)



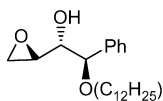
C₁₆H₂₄O₃

(1R,2R)-2-(Hexyloxy)-1-((R)-oxiran-2-yl)-2-phenylethanol

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$[\alpha]_D^{25} = -34$ (c 1.0, CHCl₃)
Source of chirality: stereoselective synthesis
Absolute configuration: (4R,4'R,5R)

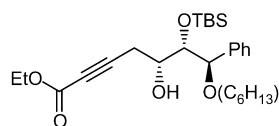


C₂₂H₃₆O₃

(1R,2R)-2-(Dodecyloxy)-1-((R)-oxiran-2-yl)-2-phenylethanol

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C₂₇H₄₄O₅Si

(5R,6S,7R)-Ethyl 6-(*tert*-butylidimethylsilyloxy)-7-(hexyloxy)-5-hydroxy-7-phenylhept-2-ynoate

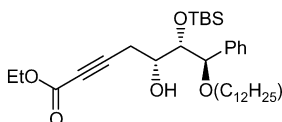
$[\alpha]_D^{25} = +71.0$ (c 1.0, CHCl₃)

Source of chirality: stereoselective synthesis

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

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C₃₃H₅₆O₅Si

(5R,6S,7R)-Ethyl 6-(*tert*-butylidimethylsilyloxy)-7-(dodecyloxy)-5-hydroxy-7-phenylhept-2-ynoate

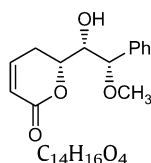
$[\alpha]_D^{25} = +54.10$ (c 1.0, CHCl₃)

Source of chirality: stereoselective synthesis

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

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C₁₄H₁₆O₄

(R)-6-((1S,2S)-1-Hydroxy-2-methoxy-2-phenylethyl)-5,6-dihydropyran-2-one

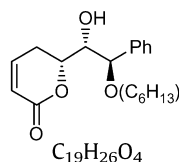
$[\alpha]_D^{25} = -0.8$ (c 0.50, CHCl₃)

Source of chirality: stereoselective synthesis

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

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C₁₉H₂₆O₄

(R)-6-((1S,2R)-2-(Hexyloxy)-1-hydroxy-2-phenylethyl)-5,6-dihydropyran-2-one

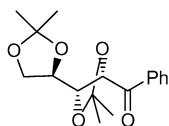
$[\alpha]_D^{25} = -3.5$ (c 1.0, CHCl₃)

Source of chirality: stereoselective synthesis

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

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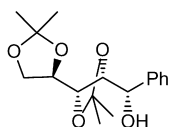
$C_{17}H_{22}O_5$

Phenyl((4R,4'R,5S)-2,2,2',2'-tetramethyl-4,4'-bi(1,3-dioxolan)-5-yl)methanone

$[\alpha]_D^{25} = +11.6$ (c 0.8, $CHCl_3$)
Source of chirality: stereoselective synthesis
Absolute configuration: (4R,4'R,5R)

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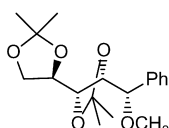
$C_{17}H_{24}O_5$

(S)-Phenyl((4R,4'R,5R)-2,2,2',2'-tetramethyl-4,4'-bi(1,3-dioxolan)-5-yl)methanol

$[\alpha]_D^{25} = +15.7$ (c 1.0, $CHCl_3$)
Source of chirality: stereoselective synthesis
Absolute configuration: (4R,4'R,5R)

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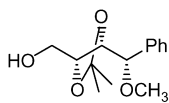
$C_{18}H_{26}O_5$

(4R,4'R,5R)-5-((S)-Methoxy(phenyl)methyl)-2,2,2',2'-tetramethyl-4,4'-bi(1,3-dioxolane)

$[\alpha]_D^{25} = +59.6$ (c 0.5, $CHCl_3$)
Source of chirality: stereoselective synthesis
Absolute configuration: (4R,4'R,5R)

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$C_{14}H_{20}O_4$

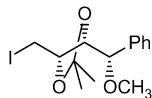
((4R,5R)-5-((S)-Methoxy(phenyl)methyl)-2,2-dimethyl-1,3-dioxolan-4-yl)methanol

$[\alpha]_D^{25} = +55.9$ (c 2.1, $CHCl_3$)
Source of chirality: stereoselective synthesis
Absolute configuration: (4R,4'R,5S)

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$[\alpha]_D^{25} = +63.1$ (c 1.0, CHCl₃)
Source of chirality: stereoselective synthesis
Absolute configuration: (4*R*,4'*R*,5*S*)



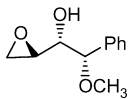
C₁₄H₁₉IO₃

(4*S*,5*R*)-4-(iodomethyl)-5-((*S*)-methoxy(phenyl)methyl)-2,2-dimethyl-1,3-dioxolane

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$[\alpha]_D^{25} = +36.9$ (c 2.9, CHCl₃)
Source of chirality: stereoselective synthesis
Absolute configuration: (4*R*,4'*R*,5*S*)



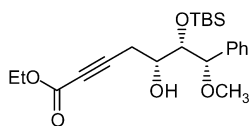
C₁₁H₁₄O₃

(1*R*,2*S*)-2-methoxy-1-((*R*)-oxiran-2-yl)-2-phenylethanol

Jhillu Singh Yadav*, Batta Madhava Rao, Kodepelly Sanjeeva Rao

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$[\alpha]_D^{25} = +60.5$ (c 1.4, CHCl₃)
Source of chirality: stereoselective synthesis
Absolute configuration: (5*R*,6*S*,7*S*)



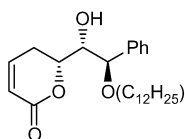
C₂₂H₃₄O₅Si

(5*R*,6*S*,7*S*)-Ethyl 6-(*tert*-butylidimethylsilyloxy)-5-hydroxy-7-methoxy-7-phenylhept-2-ynoate

Jhillu Singh Yadav*, Batta Madhava Rao, Kodepelly Sanjeeva Rao

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$[\alpha]_D^{25} = +23.4$ (c 0.35, CHCl₃)
Source of chirality: stereoselective synthesis
Absolute configuration: (5*R*,6*S*,7*R*)

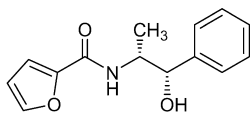


C₂₅H₃₈O₄

(*R*)-6-((1*S*,2*R*)-2-(dodecyloxy)-1-hydroxy-2-phenylethyl)-5,6-dihydropyran-2-one

Nallamuthu Ananthi, Umesh Balakrishnan, Ajayan Vinu, Katsuhiko Ariga,
Sivan Velmathi *

Tetrahedron: Asymmetry 20 (2009) 1731



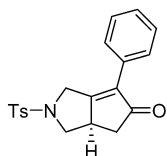
C₁₄H₁₅NO₃

N-((1*S*,2*R*)-1-Hydroxy-1-phenylpropan-2-yl)furan-2-carboxamide

$[\alpha]_D^{30} = +70.4$ (c 0.125, CHCl₃)
Source of chirality: (1*S*,2*R*)-(+)-norephedrine
Absolute configuration: (1*S*,2*R*)

Kyung Seok Jeong, Dong Eun Kim, Eunsung Lee, Young Ho Jhon, Hogyu Han,
Jaheon Kim, Nakcheol Jeong *

Tetrahedron: Asymmetry 20 (2009) 1736



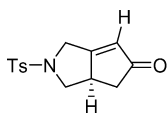
C₂₀H₁₉NO₃S

2,3,3*a*,4-Tetrahydro-6-phenyl-2-tosylcyclopenta[*c*]pyrrol-5-one

Ee = 99%
 $[\alpha]_D^{20} = -87.0$ (c 2.0, CH₂Cl₂)
Source of chirality: chiral catalyst
Absolute configuration: (3*R*)

Kyung Seok Jeong, Dong Eun Kim, Eunsung Lee, Young Ho Jhon, Hogyu Han,
Jaheon Kim, Nakcheol Jeong *

Tetrahedron: Asymmetry 20 (2009) 1736



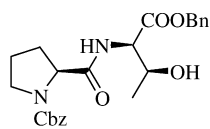
C₁₄H₁₅NO₃S

2,3,3*a*,4-Tetrahydro-2-tosylcyclopenta[*c*]pyrrol-5-one

Ee = 99%
 $[\alpha]_D^{20} = +193.7$ (c 2.5, CH₂Cl₂)
Source of chirality: chiral catalyst
Absolute configuration: (3*R*)

Srivari Chandrasekhar *, Kancharla Johny, Chada Raji Reddy

Tetrahedron: Asymmetry 20 (2009) 1742



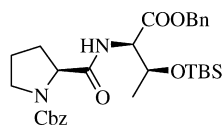
C₂₄H₂₈N₂O₆

(*S*)-Benzyl 2-((2*R*,3*S*)-1-(benzyloxy)-3-hydroxy-1-oxobutan-2-ylcarbamoyl)pyrrolidine-1-carboxylate

$[\alpha]_D^{25} = -53$ (c 1, CHCl₃)
Source of chirality: L-proline, L-threonine
Absolute configuration: (2*R*,3*S*)

Srivari Chandrasekhar*, Kancharla Johny, Chada Raji Reddy

Tetrahedron: Asymmetry 20 (2009) 1742



$C_{30}H_{42}N_2O_6Si$

(*S*)-Benzyl 2-((*2R,3S*)-1-(benzyloxy)-3-(*tert*-butyldimethylsilyloxy)-1-oxobutan-2-ylcarbamoyl)pyrrolidine-1-carboxylate

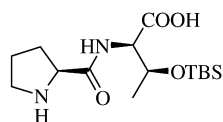
$[\alpha]_D^{25} = -30.4$ (c 1.0, $CHCl_3$)

Source of chirality: *L*-proline, *L*-threonine

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

Srivari Chandrasekhar*, Kancharla Johny, Chada Raji Reddy

Tetrahedron: Asymmetry 20 (2009) 1742



$C_{15}H_{30}N_2O_4Si$

(*2R,3S*)-3-(*tert*-Butyldimethylsilyloxy)-2-(*S*)-pyrrolidine-2-carboxamido)butanoic acid

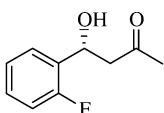
$[\alpha]_D^{25} = -21.1$ (c 0.5, $CHCl_3$)

Source of chirality: *L*-proline, *L*-threonine

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

Srivari Chandrasekhar*, Kancharla Johny, Chada Raji Reddy

Tetrahedron: Asymmetry 20 (2009) 1742



$C_{10}H_{11}FO_2$

(*R*)-4-(2-Fluorophenyl)-4-hydroxybutan-2-one

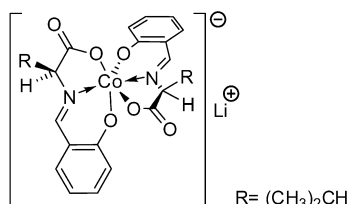
$[\alpha]_D^{25} = +65.9$ (c 1, $CHCl_3$)

Source of chirality: aldol reaction

Absolute configuration: (*R*)

Yuri N. Belokon*, Victor I. Maleev, Dmitri A. Kataev, Tatiana F. Saveleva, Tatiana V. Skrupskaya, Yulia V. Nelyubina, Michael North

Tetrahedron: Asymmetry 20 (2009) 1746



$C_{24}H_{26}N_2O_6CoLi$

Lithium Λ -bis[N-salicylidene-(*S*)-valinato]cobaltate

ee >99%

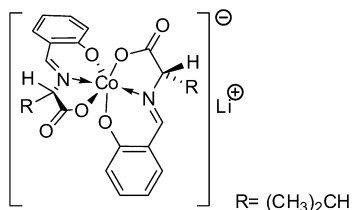
$[\alpha]_D^{25} = -4031$ (c 0.032, MeOH)

Source of chirality: synthesis from (*S*)-valine

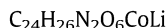
Absolute configuration: Λ , (*S,S*)

Yuri N. Belokon*[†], Victor I. Maleev, Dmitri A. Kataev, Tatiana F. Saveleva,
Tatiana V. Skrupskaya, Yulia V. Nelyubina, Michael North

Tetrahedron: Asymmetry 20 (2009) 1746



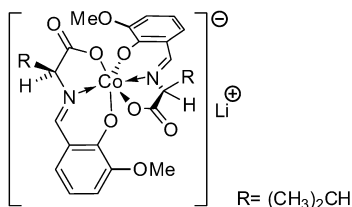
ee >99%
 $[\alpha]_D^{25} = -8631$ (c 0.032, MeOH)
Source of chirality: synthesis from (S)-valine
Absolute configuration: Δ , (S,S)



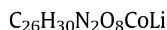
Lithium Δ -bis[N-salicylidene-(S)-valinato]cobaltate

Yuri N. Belokon*[†], Victor I. Maleev, Dmitri A. Kataev, Tatiana F. Saveleva,
Tatiana V. Skrupskaya, Yulia V. Nelyubina, Michael North

Tetrahedron: Asymmetry 20 (2009) 1746



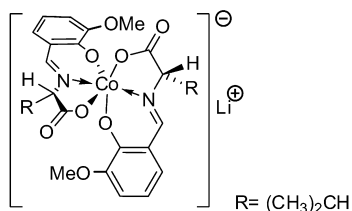
ee >99%
 $[\alpha]_D^{25} = -3458$ (c 0.031, MeOH)
Source of chirality: synthesis from (S)-valine
Absolute configuration: Δ , (S,S)



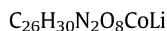
Lithium Δ -bis[N-(3-methoxysalicylidene)-(S)-valinato]cobaltate

Yuri N. Belokon*[†], Victor I. Maleev, Dmitri A. Kataev, Tatiana F. Saveleva,
Tatiana V. Skrupskaya, Yulia V. Nelyubina, Michael North

Tetrahedron: Asymmetry 20 (2009) 1746



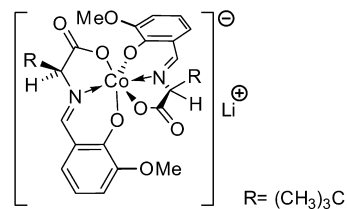
ee >99%
 $[\alpha]_D^{25} = -6982$ (c 0.034, MeOH)
Source of chirality: synthesis from (S)-valine
Absolute configuration: Δ , (S,S)



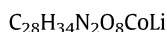
Lithium Δ -bis[N-(3-methoxysalicylidene)-(S)-valinato]cobaltate

Yuri N. Belokon*[†], Victor I. Maleev, Dmitri A. Kataev, Tatiana F. Saveleva,
Tatiana V. Skrupskaya, Yulia V. Nelyubina, Michael North

Tetrahedron: Asymmetry 20 (2009) 1746



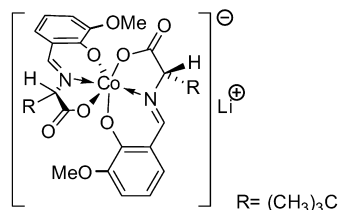
ee >99%
 $[\alpha]_D^{25} = -4500$ (c 0.027, MeOH)
Source of chirality: synthesis from (S)-tert-leucine
Absolute configuration: Λ , (S,S)



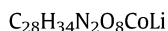
Lithium Λ -bis[N-(3-methoxysalicylidene)-(S)-tert-leucinato]cobaltate

Yuri N. Belokon*[†], Victor I. Maleev, Dmitri A. Kataev, Tatiana F. Saveleva,
Tatiana V. Skrupskaya, Yulia V. Nelyubina, Michael North

Tetrahedron: Asymmetry 20 (2009) 1746



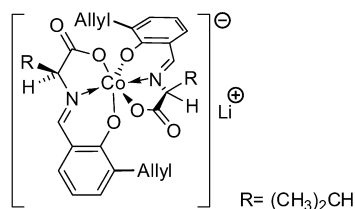
ee >99%
 $[\alpha]_D^{25} = -5763$ (c 0.027, MeOH)
Source of chirality: synthesis from (S)-tert-leucine
Absolute configuration: Δ , (S,S)



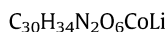
Lithium Δ -bis[N-(3-methoxysalicylidene)-(S)-tert-leucinato]cobaltate

Yuri N. Belokon*[†], Victor I. Maleev, Dmitri A. Kataev, Tatiana F. Saveleva,
Tatiana V. Skrupskaya, Yulia V. Nelyubina, Michael North

Tetrahedron: Asymmetry 20 (2009) 1746



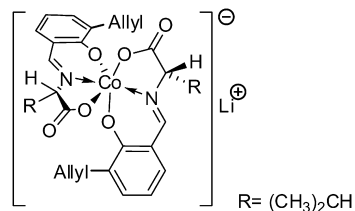
ee >99%
 $[\alpha]_D^{25} = -4633$ (c 0.06, MeOH)
Source of chirality: synthesis from (S)-valine
Absolute configuration: Δ , (S,S)



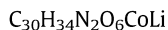
Lithium Δ -bis[N-(3-allylsalicylidene)-(S)-valinato]cobaltate

Yuri N. Belokon*[†], Victor I. Maleev, Dmitri A. Kataev, Tatiana F. Saveleva,
Tatiana V. Skrupskaya, Yulia V. Nelyubina, Michael North

Tetrahedron: Asymmetry 20 (2009) 1746



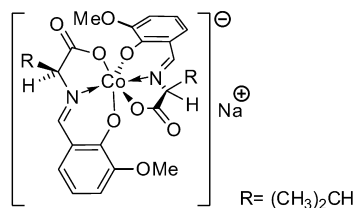
ee >99%
 $[\alpha]_D^{25} = -732$ (c 0.044, MeOH)
Source of chirality: synthesis from (S)-valine
Absolute configuration: Δ , (S,S)



Lithium Δ -bis[N-(3-allylsalicylidene)-(S)-valinato]cobaltate

Yuri N. Belokon*[†], Victor I. Maleev, Dmitri A. Kataev, Tatiana F. Saveleva,
Tatiana V. Skrupskaya, Yulia V. Nelyubina, Michael North

Tetrahedron: Asymmetry 20 (2009) 1746



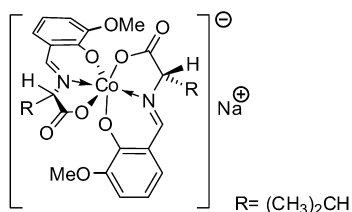
ee >99%
 $[\alpha]_D^{25} = -3697$ (c 0.035, MeOH)
Source of chirality: synthesis from (S)-valine
Absolute configuration: Δ , (S,S)



Sodium Δ -bis[N-(3-methoxysalicylidene)-(S)-valinato]cobaltate

Yuri N. Belokon*[†], Victor I. Maleev, Dmitri A. Kataev, Tatiana F. Saveleva,
Tatiana V. Skrupskaya, Yulia V. Nelyubina, Michael North

Tetrahedron: Asymmetry 20 (2009) 1746



$C_{26}H_{30}N_2O_8CoNa$

Sodium Δ -bis[N-(3-methoxysalicylidene)-(S)-valinato]cobaltate

ee >99%

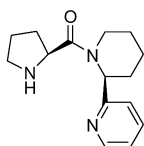
$[\alpha]_D^{25} = -8046$ (c 0.035, MeOH)

Source of chirality: synthesis from (S)-valine

Absolute configuration: Δ , (S,S)

Yan-Qin Cheng, Zheng Bian, Ya-Bing He, Fu-She Han, Chuan-Qing Kang,
Zhao-Lun Ning, Lian-Xun Gao*

Tetrahedron: Asymmetry 20 (2009) 1753



$C_{15}H_{21}N_3O$

(S)-2-(2'-Piperidinyl)pyridine derived L-prolinamide

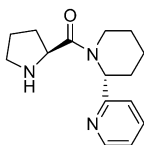
$[\alpha]_D^{20} = -198.4$ (c 0.64, CH_2Cl_2)

Source of chirality: L-proline and (S)-2-(2'-piperidinyl)pyridine

Absolute configuration: (S, 2S)

Yan-Qin Cheng, Zheng Bian, Ya-Bing He, Fu-She Han, Chuan-Qing Kang,
Zhao-Lun Ning, Lian-Xun Gao*

Tetrahedron: Asymmetry 20 (2009) 1753



$C_{15}H_{21}N_3O$

(R)-2-(2'-Piperidinyl)pyridine derived L-prolinamide

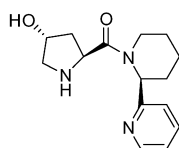
$[\alpha]_D^{20} = +70.0$ (c 1, CH_2Cl_2)

Source of chirality: L-proline and (R)-2-(2'-piperidinyl)pyridine

Absolute configuration: (R, 2S)

Yan-Qin Cheng, Zheng Bian, Ya-Bing He, Fu-She Han, Chuan-Qing Kang,
Zhao-Lun Ning, Lian-Xun Gao*

Tetrahedron: Asymmetry 20 (2009) 1753



$C_{15}H_{21}N_3O_2$

(S)-2-(2'-Piperidinyl)pyridine derived *trans*-4-hydroxy-L-prolinamide

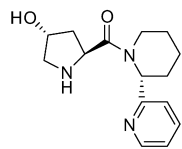
$[\alpha]_D^{20} = -100.0$ (c 0.1, CH_2Cl_2)

Source of chirality: *trans*-4-hydroxy-L-proline and (S)-2-(2'-piperidinyl)pyridine

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

Yan-Qin Cheng, Zheng Bian, Ya-Bing He, Fu-She Han, Chuan-Qing Kang,
Zhao-Lun Ning, Lian-Xun Gao*

Tetrahedron: Asymmetry 20 (2009) 1753



C₁₅H₂₁N₃O₂

(*R*)-2-(2'-Piperidinyl)pyridine derived *trans*-4-hydroxy-L-prolinamide

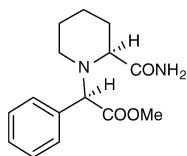
$[\alpha]_D^{20} = +61.7$ (c 0.47, CH₂Cl₂)

Source of chirality: *trans*-4-hydroxy-L-proline and (*R*)-2-(2'-piperidinyl) pyridine

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

Maciej Dawidowski*, Franciszek Herold, Marcin Wilczek, Jerzy Kleps, Irena Wolska,
Jadwiga Turło, Andrzej Chodkowski, Paweł Widomski, Anna Bielejewska

Tetrahedron: Asymmetry 20 (2009) 1759



C₁₅H₂₀N₂O₃

(2*S*,α*R*)-α-(2-Carbamoylpiperidinyl)-α-phenylacetic acid methyl ester

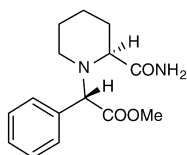
$[\alpha]_D = -125.0$ (c 1, CHCl₃)

Source of chirality: (*S*)-(+)-2-(4-toluenesulfonyloxy)-phenylacetic acid methyl ester, (*S*)-(-)-2-piperidine-carboxamide

Absolute configuration: (2*S*,α*R*)

Maciej Dawidowski*, Franciszek Herold, Marcin Wilczek, Jerzy Kleps, Irena Wolska,
Jadwiga Turło, Andrzej Chodkowski, Paweł Widomski, Anna Bielejewska

Tetrahedron: Asymmetry 20 (2009) 1759



C₁₅H₂₀N₂O₃

(2*S*,α*S*)-α-(2-Carbamoylpiperidinyl)-α-phenylacetic acid methyl ester

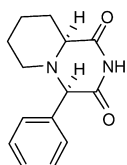
$[\alpha]_D = +3.0$ (c 1, CHCl₃)

Source of chirality: (*R*)-(-)-2-(4-toluenesulfonyloxy)-phenylacetic acid methyl ester, (*S*)-(-)-2-piperidine-carboxamide

Absolute configuration: (2*S*,α*S*)

Maciej Dawidowski*, Franciszek Herold, Marcin Wilczek, Jerzy Kleps, Irena Wolska,
Jadwiga Turło, Andrzej Chodkowski, Paweł Widomski, Anna Bielejewska

Tetrahedron: Asymmetry 20 (2009) 1759



C₁₄H₁₆N₂O₂

(4*R*,9*aS*)-4-Phenyl-perhydropyrido[1,2-*a*]pyrazine-1,3-dione

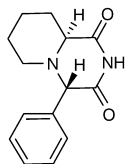
$[\alpha]_D = -137.4$ (c 1, CHCl₃)

Source of chirality: (2*S*,α*R*)-α-(2-carbamoylpiperidinyl)-α-phenylacetic acid methyl ester

Absolute configuration: (4*R*,9*aS*)

Maciej Dawidowski *, Franciszek Herold, Marcin Wilczek, Jerzy Kleps, Irena Wolska, Jadwiga Turło, Andrzej Chodkowski, Paweł Widomski, Anna Bielejewska

Tetrahedron: Asymmetry 20 (2009) 1759



C₁₄H₁₆N₂O₂

(4S,9aS)-4-Phenyl-perhydropyrido[1,2-a]pyrazine-1,3-dione

[α]_D = -97.1 (c 1, CHCl₃)

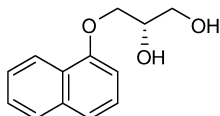
Source of chirality: (2S,αS)-α-(2-carbamoylpiperidinyl)-

α-phenylacetic acid methyl ester

Absolute configuration: (4S,9aS)

Sharad P. Panchgalle, Rohitkumar G. Gore, Subhash P. Chavan, Uttam R. Kalkote *

Tetrahedron: Asymmetry 20 (2009) 1767



C₁₃H₁₄O₃

(S)-3-(1'-Naphthoxy)propane-1,2-diol

Ee = 98%

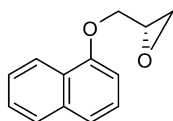
[α]_D²⁵ = +6.7 (c 1.05 MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (2S)

Sharad P. Panchgalle, Rohitkumar G. Gore, Subhash P. Chavan, Uttam R. Kalkote *

Tetrahedron: Asymmetry 20 (2009) 1767



C₁₃H₁₂O₂

(S)-2-((1'-Naphthoxy)-methyl)oxirane

Ee = 98%

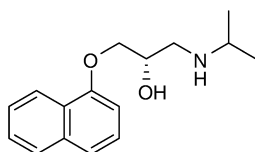
[α]_D²⁵ = -34.0 (c 1.52, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (2S)

Sharad P. Panchgalle, Rohitkumar G. Gore, Subhash P. Chavan, Uttam R. Kalkote *

Tetrahedron: Asymmetry 20 (2009) 1767



C₁₆H₂₁NO₂

(S)-1-(Isopropylamino)-3-(1'-naphthoxy)propan-2-ol or (S)-propranolol

Ee = 98%

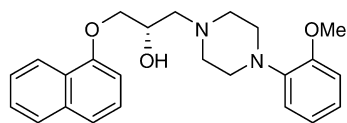
[α]_D²⁵ = -9.8 (c 0.55, EtOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (2S)

Sharad P. Panchgalle, Rohitkumar G. Gore, Subhash P. Chavan, Uttam R. Kalkote *

Tetrahedron: Asymmetry 20 (2009) 1767



$C_{24}H_{28}N_2O_3$

(S)-1-[4-(2'-Methoxyphenyl)-piperazin-1-yl]-3-(1'-naphthoxy)-2-propanol or (S)-naftopidil

Ee = 98%

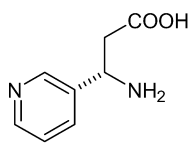
$[\alpha]_D^{25} = +4.7$ (c 1.55, MeOH)

Source of chirality: asymmetric synthesis

Absolute configuration: (2S)

Gábor Tasnádi, Enikő Forró *, Ferenc Fülöp *

Tetrahedron: Asymmetry 20 (2009) 1771



$C_8H_{10}N_2O_2$

(S)-3-Amino-3-(3-pyridyl)propanoic acid

Ee >99% by HPLC on a Chirobiotic TAG column

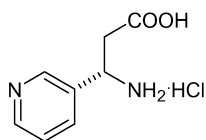
$[\alpha]_D^{25} = -5.1$ (c 0.41, H₂O)

Source of chirality: lipase PS-catalyzed hydrolysis

Absolute configuration: (3S)

Gábor Tasnádi, Enikő Forró *, Ferenc Fülöp *

Tetrahedron: Asymmetry 20 (2009) 1771



$C_8H_{11}ClN_2O_2$

(S)-3-Amino-3-(3-pyridyl)propanoic acid hydrochloride

Ee >99% by HPLC on a Chirobiotic TAG column

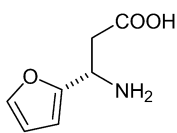
$[\alpha]_D^{25} = -3.9$ (c 0.33, H₂O)

Source of chirality: lipase PS-catalyzed hydrolysis

Absolute configuration: (3S)

Gábor Tasnádi, Enikő Forró *, Ferenc Fülöp *

Tetrahedron: Asymmetry 20 (2009) 1771



$C_7H_9NO_3$

(S)-3-Amino-3-(2-furyl)propanoic acid

Ee >99% by HPLC on a Chirobiotic TAG column

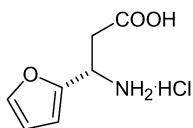
$[\alpha]_D^{25} = -5.8$ (c 0.52, H₂O)

Source of chirality: lipase PS-catalyzed hydrolysis

Absolute configuration: (3S)

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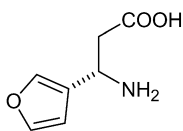
$C_7H_{10}ClNO_3$

(S)-3-Amino-3-(2-furyl)propanoic acid hydrochloride

Ee >99% by HPLC on a Chirobiotic TAG column
 $[\alpha]_D^{25} = -4.9$ (c 0.32, H₂O)
Source of chirality: lipase PS-catalyzed hydrolysis
Absolute configuration: (3S)

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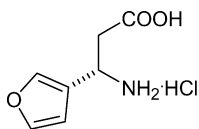
$C_7H_9NO_3$

(S)-3-Amino-3-(3-furyl)propanoic acid

Ee >99% by GC on a Chirasil L-Val column after derivatization with CH₂N₂ and (PrCO)₂O
 $[\alpha]_D^{25} = -6.7$ (c 0.34, H₂O)
Source of chirality: lipase PS-catalyzed hydrolysis
Absolute configuration: (3S)

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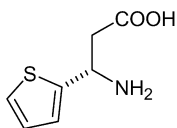
$C_7H_{10}ClNO_3$

(S)-3-Amino-3-(3-furyl)propanoic acid hydrochloride

Ee >99% by GC on a Chirasil L-Val column after derivatization with CH₂N₂ and (PrCO)₂O
 $[\alpha]_D^{25} = -4.6$ (c 0.42, H₂O)
Source of chirality: lipase PS-catalyzed hydrolysis
Absolute configuration: (3S)

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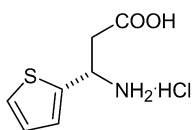
$C_7H_9NO_2S$

(S)-3-Amino-3-(2-thienyl)propanoic acid

Ee >99% by HPLC on a Chirobiotic TAG column
 $[\alpha]_D^{25} = -9.9$ (c 0.41, H₂O)
Source of chirality: lipase PS-catalyzed hydrolysis
Absolute configuration: (3S)

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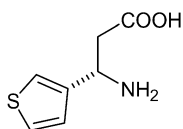
C₇H₁₀ClNO₂S

(S)-3-Amino-3-(2-thienyl)propanoic acid hydrochloride

Ee >99% by HPLC on a Chirobiotic TAG column
[α]_D²⁵ = -3.1 (c 0.33, H₂O)
Source of chirality: lipase PS-catalyzed hydrolysis
Absolute configuration: (3S)

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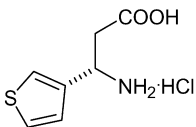
C₇H₉NO₂S

(S)-3-Amino-3-(3-thienyl)propanoic acid

Ee >99% by GC on a Chirasil L-Val column after derivatization with CH₂N₂ and (EtCO)₂O
[α]_D²⁵ = -3.2 (c 0.32, H₂O)
Source of chirality: lipase PS-catalyzed hydrolysis
Absolute configuration: (3S)

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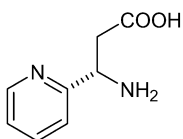
C₇H₁₀ClNO₂S

(S)-3-Amino-3-(3-thienyl)propanoic acid hydrochloride

Ee >99% by GC on a Chirasil L-Val column after derivatization with CH₂N₂ and (EtCO)₂O
[α]_D²⁵ = -3.6 (c 0.34, H₂O)
Source of chirality: lipase PS-catalyzed hydrolysis
Absolute configuration: (3S)

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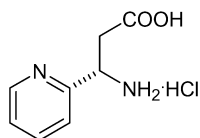
C₈H₁₀N₂O₂

(S)-3-Amino-3-(2-pyridyl)propanoic acid

Ee >99% by HPLC on a Chiralpak IA column after derivatization with CH₂N₂
[α]_D²⁵ = -18.2 (c 0.32, H₂O)
Source of chirality: lipase PS-catalyzed hydrolysis
Absolute configuration: (3S)

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$C_8H_{11}ClN_2O_2$

(S)-3-Amino-3-(2-pyridyl)propanoic acid hydrochloride

Ee >99% by HPLC on a Chiralpak IA column after derivatization with CH_2N_2

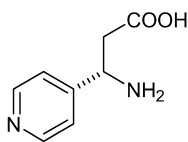
$[\alpha]_D^{25} = -8.6$ (c 0.31, H_2O)

Source of chirality: lipase PS-catalyzed hydrolysis

Absolute configuration: (3S)

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$C_8H_{10}N_2O_2$

(S)-3-Amino-3-(4-pyridyl)propanoic acid

Ee = 98% by HPLC on a Chirobiotic TAG column

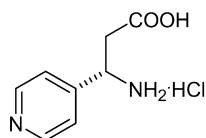
$[\alpha]_D^{25} = -11.7$ (c 0.36, H_2O)

Source of chirality: lipase PS-catalyzed hydrolysis

Absolute configuration: (3S)

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$C_8H_{11}ClN_2O_2$

(S)-3-Amino-3-(4-pyridyl)propanoic acid hydrochloride

Ee = 98% by HPLC on a Chirobiotic TAG column

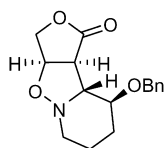
$[\alpha]_D^{25} = -3.6$ (c 0.35, H_2O)

Source of chirality: lipase PS-catalyzed hydrolysis

Absolute configuration: (3S)

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$C_{16}H_{19}NO_4$

(1aR,4aS,4bS,5R)-5-Benzyloxy-octahydrofuro[3,4-d]pyridin[1,2-b]isoxazol-4(3H)-one

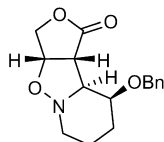
$[\alpha]_D^{25} = +57.3$ (c 1.85, CH_2Cl_2)

Source of chirality: asymmetric synthesis

Absolute configuration: 1aR,4aS,4bS,5R

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Tetrahedron: Asymmetry 20 (2009) 1778



C₁₆H₁₉NO₄

(1*aS*,4*aR*,4*bS*,5*R*)-5-Benzyloxy-octahydrofuro[3,4-*d*]pyridin[1,2-*b*]isoxazol-4(3*H*)-one

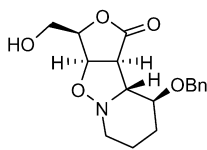
$[\alpha]_D^{25} = +11.3$ (c 0.6, CH₂Cl₂)

Source of chirality: asymmetric synthesis

Absolute configuration: 1*aS*,4*aR*,4*bS*,5*R*

Sebastian Stecko, Jadwiga Frelek, Marek Chmielewski *

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C₁₇H₂₁NO₅

(1*aR*,2*R*,4*aS*,4*bS*,5*R*)-5-Benzyloxy-2-hydroxymethyl-octahydrofuro[3,4-*d*]pyridino[1,2-*b*]isoxazol-4(3*H*)-one

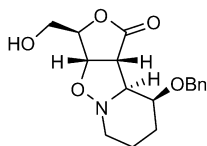
$[\alpha]_D^{25} = +2.24$ (c 2.24, CH₂Cl₂)

Source of chirality: asymmetric synthesis

Absolute configuration: 1*aR*,2*R*,4*aS*,4*bS*,5*R*

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C₁₇H₂₁NO₅

(1*aS*,2*R*,4*aR*,4*bS*,5*R*)-5-Benzyloxy-2-hydroxymethyl-octahydrofuro[3,4-*d*]pyridin[1,2-*b*]isoxazol-4(3*H*)-one

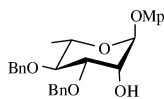
$[\alpha]_D^{25} = +100.3$ (c 0.75, CH₂Cl₂)

Source of chirality: asymmetric synthesis

Absolute configuration: 1*aS*,2*R*,4*aR*,4*bS*,5*R*

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C₂₇H₃₀O₆

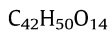
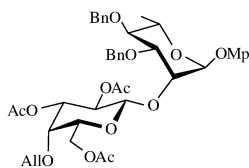
4-Methoxyphenyl 3,4-di-*O*-benzyl- α -L-rhamnopyranoside

$[\alpha]_D^{25} = -43$ (c 1.5, CHCl₃)

Source of chirality: L-rhamnose

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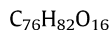
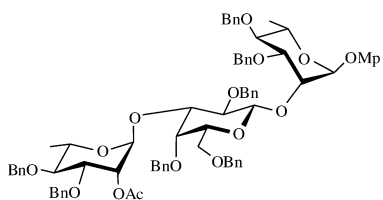


4-Methoxyphenyl (2,4,6-tri-O-acetyl-3-O-allyl- β -D-galactopyranosyl)-(1 \rightarrow 2)-3,4-di-O-benzyl- α -L-rhamnopyranoside

$[\alpha]_D^{25} = +12.3$ (c 1.5, $CHCl_3$)
Source of chirality: D-galactose, L-rhamnose

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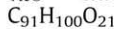
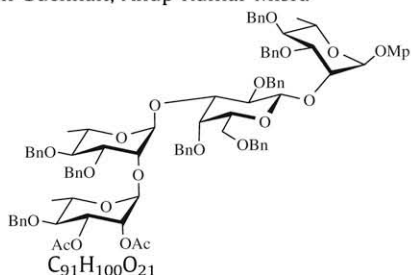


4-Methoxyphenyl (2-O-acetyl-3,4-di-O-benzyl- α -L-rhamnopyranosyl)-(1 \rightarrow 3)-(2,4,6-tri-O-benzyl- β -D-galactopyranosyl)-(1 \rightarrow 2)-3,4-di-O-benzyl- α -L-rhamnopyranoside

$[\alpha]_D^{25} = +2.6$ (c 1.5, $CHCl_3$)
Source of chirality: D-galactose, L-rhamnose

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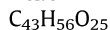
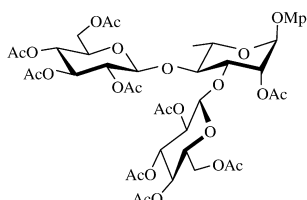


4-Methoxyphenyl (2,3-di-O-acetyl-4-O-benzyl- α -L-rhamnopyranosyl)-(1 \rightarrow 2)-(3,4-di-O-benzyl- α -L-rhamnopyranosyl)-(1 \rightarrow 3)-(2,4,6-tri-O-benzyl- β -D-galactopyranosyl)-(1 \rightarrow 2)-3,4-di-O-benzyl- α -L-rhamnopyranoside

$[\alpha]_D^{25} = -7.5$ (c 1.0, $CHCl_3$)
Source of chirality: D-galactose, L-rhamnose

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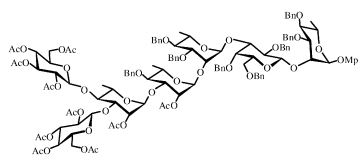


4-Methoxyphenyl (2,3,4,6-tetra-O-acetyl- β -D-glucopyranosyl)-(1 \rightarrow 3)-[(2,3,4,6-tetra-O-acetyl- β -D-glucopyranosyl)-(1 \rightarrow 4)]-2-O-acetyl- α -L-rhamnopyranoside

$[\alpha]_D^{25} = -2.3$ (c 1.0, $CHCl_3$)
Source of chirality: D-glucose, L-rhamnose

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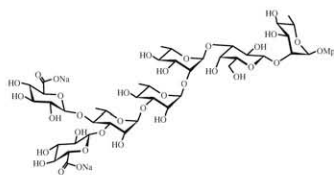
$[\alpha]_D^{25} = +3.2$ (c 1.5, CHCl₃)
Source of chirality: D-galactose, D-glucose, L-rhamnose

C₁₂₅H₁₄₆O₄₃

4-Methoxyphenyl (2,3,4,6-tetra-O-acetyl-β-D-glucopyranosyl)-(1→3)-[(2,3,4,6-tetra-O-acetyl-β-D-glucopyranosyl)-(1→4)]-2-O-acetyl-α-L-rhamnopyranosyl-(1→3)-(2-O-acetyl-4-O-benzyl-α-L-rhamnopyranosyl)-(1→2)-(3,4-di-O-benzyl-α-L-rhamnopyranosyl)-(1→3)-(2,4,6-tri-O-benzyl-β-D-galactopyranosyl)-(1→2)-3,4-di-O-benzyl-α-L-rhamnopyranoside

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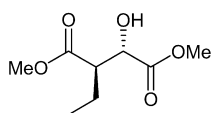
$[\alpha]_D^{25} = -64$ (c 1.0, CH₃OH)
Source of chirality: D-galactose, D-glucosamine, L-fucose

C₄₉H₇₂Na₂O₃₅

4-Methoxyphenyl (sodium β-D-glucopyranosyl uronate)-(1→3)-[(sodium β-D-glucopyranosyl uronate)-(1→4)]-α-L-rhamnopyranosyl-(1→3)-(α-L-rhamnopyranosyl)-(1→2)-(α-L-rhamnopyranosyl)-(1→3)-(β-D-galactopyranosyl)-(1→2)-α-L-rhamnopyranoside

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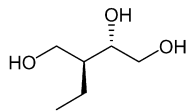
C₆H₁₀O₅

Dimethyl (2R,3S)-2-ethyl-3-hydroxybutanedioate

$[\alpha]_D^{20} = +9.3$ (c 1.1, CHCl₃)
Source of chirality: (S)-malic acid
Absolute configuration: (2R,3S)

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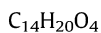
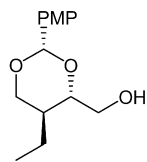
C₆H₁₄O₃

(2S,3S)-3-Ethylbutane-1,2,4-triol

$[\alpha]_D^{25} = +19.5$ (c 1.1, CHCl₃)
Source of chirality: (S)-malic acid
Absolute configuration: (2S,3S)

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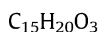
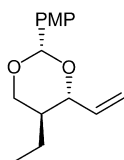


[(2S,4S,5S)-5-Ethyl-2-(4-methoxyphenyl)-1,3-dioxan-4-yl]methanol

$[\alpha]_D^{25} = +31.5$ (c 1.1, $CHCl_3$)
Source of chirality: (S)-malic acid
Absolute configuration: (4S,5S)

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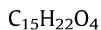
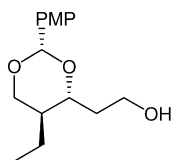


(2S,4R,5S)-5-Ethyl-2-(4-methoxyphenyl)-4-vinyl-1,3-dioxane

$[\alpha]_D^{25} = +15.5$ (c 1.1, $CHCl_3$)
Source of chirality: (S)-malic acid
Absolute configuration: (4R,5S)

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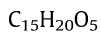
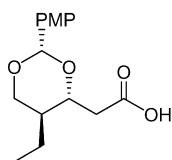


2-[(2S,4R,5S)-5-Ethyl-2-(4-methoxyphenyl)-1,3-dioxan-4-yl]-1-ethanol

$[\alpha]_D^{25} = +81.5$ (c 1.1, $CHCl_3$)
Source of chirality: (S)-malic acid
Absolute configuration: (4R,5S)

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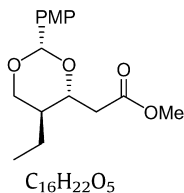


2-[(2S,4R,5S)-5-Ethyl-2-(4-methoxyphenyl)-1,3-dioxan-4-yl]acetic acid

$[\alpha]_D^{25} = +55.5$ (c 1.1, $CHCl_3$)
Source of chirality: (S)-malic acid
Absolute configuration: (4R,5S)

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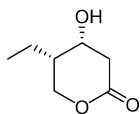


Methyl 2-[(2S,4R,5S)-5-ethyl-2-(4-methoxyphenyl)-1,3-dioxan-4-yl]acetate

$[\alpha]_D^{25} = +82.0$ (c 1.1, $CHCl_3$)
Source of chirality: (S)-malic acid
Absolute configuration: (4R,5S)

Ahmed Kamal *, P. Venkat Reddy, S. Prabhakar, P. Suresh

Tetrahedron: Asymmetry 20 (2009) 1798

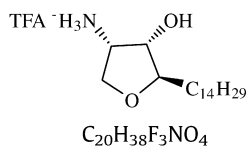


(4R,5S)-5-Ethyl-4-hydroxytetrahydro-2H-2-pyranone

$[\alpha]_D^{22} = +22.9$ (c 1.1, $CHCl_3$)
Source of chirality: (S)-malic acid
Absolute configuration: (4R,5S)

Gowrisankar Reddipalli, Mallam Venkataiah, Mithilesh Kumar Mishra,
Nitin W. Fadnavis *

Tetrahedron: Asymmetry 20 (2009) 1802

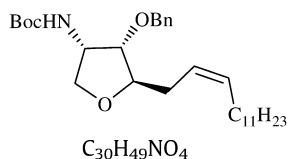


(2R,3S,4S)-4-Amino-2-tetradecyltetrahydro-3-furanol TFA salt

$[\alpha]_D^{25} = +13.6$ (c 1, EtOH)
Chiral source: D-(-)-diethyl tartrate
Absolute configuration: (2R,3S,4S)

Gowrisankar Reddipalli, Mallam Venkataiah, Mithilesh Kumar Mishra,
Nitin W. Fadnavis *

Tetrahedron: Asymmetry 20 (2009) 1802

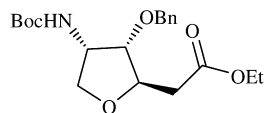


tert-Pentyl N-(3S,4S,5R)-4-(benzyloxy)-5-[(Z)-2-tetradecenyl]tetrahydro-3-furanylcarbamate

$[\alpha]_D^{25} = +6.8$ (c 1, $CHCl_3$)
Chiral source: D-(-)-diethyl tartrate
Absolute configuration: (3S,4S,5R)

Gowrisankar Reddipalli, Mallam Venkataiah, Mithilesh Kumar Mishra,
Nitin W. Fadnavis*

Tetrahedron: Asymmetry 20 (2009) 1802



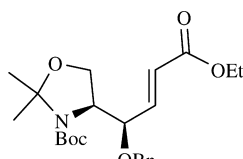
C₂₀H₂₉NO₆

Ethyl 2-((2R,3S,4S)-3-(benzyloxy)-4-[(*tert*-pentyloxy)carbonyl]aminotetrahydro-2-furanyl)acetate

$[\alpha]_D^{25} = +11.5$ (c 1, CHCl₃)
Chiral source: D-(–)-diethyl tartrate
Absolute configuration: (2R,3S,4S)

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Nitin W. Fadnavis*

Tetrahedron: Asymmetry 20 (2009) 1802



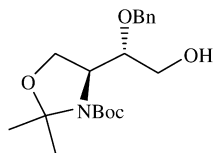
C₂₃H₃₃NO₆

tert-Butyl (4S)-4-[(1R,2E)-1-(benzyloxy)-4-ethoxy-4-oxo-2-butenyl]-2,2-dimethyl-1,3-oxazolidin-3-carboxylate

$[\alpha]_D^{25} = -22.2$ (c 1, CHCl₃)
Chiral source: D-(–)-diethyl tartrate
Absolute configuration: (4S,1R,2E)

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Tetrahedron: Asymmetry 20 (2009) 1802



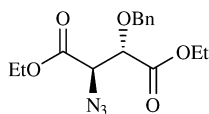
C₁₉H₂₉NO₅

tert-Butyl (4S)-4-[(1S)-1-benzyloxyethyl]-2,2-dimethyl-1,3-oxazolidin-3-carbamate

$[\alpha]_D^{25} = -50.0$ (c 1, CHCl₃)
Chiral source: D-(–)-diethyl tartrate
Absolute configuration: (1R,4S)

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Nitin W. Fadnavis*

Tetrahedron: Asymmetry 20 (2009) 1802



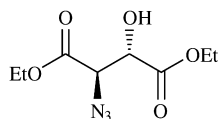
C₁₅H₁₉N₃O₅

1-[(1R,2S)-2-(benzyloxy)-3-ethoxy-1-(ethoxycarbonyl)-3-oxopropyl]-1,2-triazadien-2-ium

$[\alpha]_D^{25} = +5.5$ (c 1, CHCl₃)
Chiral source: D-(–)-diethyl tartrate
Absolute configuration: (1R,2S)

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Nitin W. Fadnavis *

Tetrahedron: Asymmetry 20 (2009) 1802



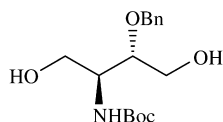
$C_8H_{13}N_3O_5$

1-[(1R,2S)-3-Ethoxy-1-(ethoxycarbonyl)-2-hydroxy-3-oxopropyl]-1,2-triazadien-2-ium

$[\alpha]_D^{25} = -30.5$ (c 1, $CHCl_3$)
Chiral source: D-(-)-diethyl tartrate
Absolute configuration: (1R,2S)

Gowrisankar Reddipalli, Mallam Venkataiah, Mithilesh Kumar Mishra,
Nitin W. Fadnavis *

Tetrahedron: Asymmetry 20 (2009) 1802



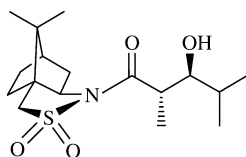
$C_{16}H_{25}NO_5$

tert-butyl N-[(1S,2S)-2-(benzyloxy)-3-hydroxy-1-(hydroxymethyl)propyl]carbamate

$[\alpha]_D^{25} = -45.4$ (c 1, $CHCl_3$)
Chiral source =D-(-)-Diethyl tartrate
Absolute configuration = (1S,2S)

Peddikotla Prabhakar, Singanaboina Rajaram, Yenamandra Venkateswarlu *

Tetrahedron: Asymmetry 20 (2009) 1806



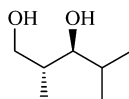
$C_{17}H_{29}NO_4S$

(2R)-N-[2S,3S]-2,4-Dimethyl-3-hydroxypentan-1-oyl]bornane-10,2-sultam

$[\alpha]_D = -71.5$ (c 0.1, $CHCl_3$)
Source of chirality: chiral auxiliary
Absolute configuration: (2S,3S)

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Tetrahedron: Asymmetry 20 (2009) 1806



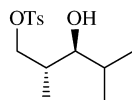
$C_7H_{16}O_2$

(2R,3S)-2,4-Dimethylpentane-1,3-diol

$[\alpha]_D = +8.0$ (c 0.1, $CHCl_3$)
Source of chirality: chiral auxiliary
Absolute configuration: (2R,3S)

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Tetrahedron: Asymmetry 20 (2009) 1806



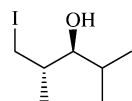
C₁₄H₂₂O₄S

(2R,3S)-3-Hydroxy-2,4-dimethylpentyl 4-methylbenzenesulfonate

$[\alpha]_D = +21.0$ (c 0.1, CHCl₃)
Source of chirality: chiral auxiliary
Absolute configuration: (2R,3S)

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Tetrahedron: Asymmetry 20 (2009) 1806



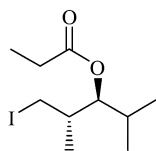
C₂₆H₄₂O₄

(2S,3S)-1-Iodo-2,4-dimethylpentan-3-ol

$[\alpha]_D = -32.5$ (c 0.2, CHCl₃)
Source of chirality: chiral auxiliary
Absolute configuration: (2S,3S)

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Tetrahedron: Asymmetry 20 (2009) 1806



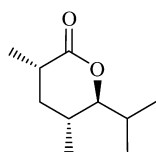
C₁₀H₁₉O₂I

(2S,3S)-1-Iodo-2,4-dimethylpentan-3-yl propionate

$[\alpha]_D = -7.0$ (c 0.1, CHCl₃)
Source of chirality: chiral auxiliary
Absolute configuration: (2S,3S)

Peddikotla Prabhakar, Singanaboina Rajaram, Yenamandra Venkateswarlu *

Tetrahedron: Asymmetry 20 (2009) 1806



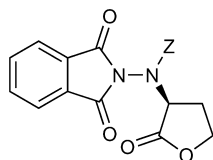
C₁₀H₁₈O₂

4-[(3S)-4-[(4S,6R)-2,2-Dimethyl-6-tridecyl-1,3-dioxan-4-yl]-3-hydroxybutyl]phenol

$[\alpha]_D = -24.5$ (c 0.1, CHCl₃)
Source of chirality: chiral auxiliary
Absolute configuration: (3S,5R,6S)

Emelyne Voss, Axelle Arrault, Jacques Bodiguel, Brigitte Jamart-Grégoire *

Tetrahedron: Asymmetry 20 (2009) 1809



C₂₀H₁₆N₂O₆

(S)- α -(N-Benzoyloxycarbonylaminophthamido)- γ -butyrolactone

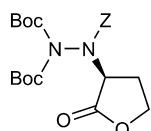
$[\alpha]_D^{22} = -2.63$ (c 0.760, EtOH)

Source of chirality: (R)- α -hydroxy- γ -butyrolactone

Absolute configuration: (S)

Emelyne Voss, Axelle Arrault, Jacques Bodiguel, Brigitte Jamart-Grégoire *

Tetrahedron: Asymmetry 20 (2009) 1809



C₂₂H₃₀N₂O₈

(S)- α -[N ^{α} -(Benzoyloxycarbonyl)-N ^{β} ,N ^{β} -bis(*tert*-butyl-oxycarbonyl)hydrazino]- γ -butyrolactone

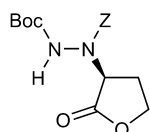
$[\alpha]_D^{22} = -2.54$ (c 1.180, EtOH)

Source of chirality: (R)- α -hydroxy- γ -butyrolactone

Absolute configuration: (S)

Emelyne Voss, Axelle Arrault, Jacques Bodiguel, Brigitte Jamart-Grégoire *

Tetrahedron: Asymmetry 20 (2009) 1809



C₁₇H₂₂N₂O₆

(S)- α -[N ^{α} -(Benzoyloxycarbonyl)-N ^{β} -(*tert*-butyl-oxycarbonyl)-hydrazino]- γ -butyrolactone

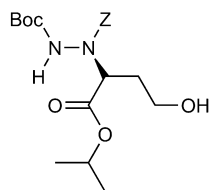
$[\alpha]_D^{22} = -2.86$ (c 1.050, EtOH)

Source of chirality: (R)- α -hydroxy- γ -butyrolactone

Absolute configuration: (S)

Emelyne Voss, Axelle Arrault, Jacques Bodiguel, Brigitte Jamart-Grégoire *

Tetrahedron: Asymmetry 20 (2009) 1809



C₂₀H₃₀N₂O₇

Isopropyl (2S)-2-[N ^{α} -(benzyloxycarbonyl)-N ^{β} -(*tert*-butyl-oxycarbonyl)hydrazino]-4-hydroxybutanoate

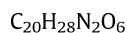
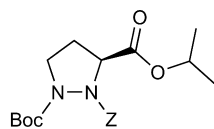
$[\alpha]_D^{22} = -0.74$ (c 1.360, EtOH)

Source of chirality: (R)- α -hydroxy- γ -butyrolactone

Absolute configuration: (2S)

Emelyne Voss, Axelle Arrault, Jacques Bodiguel, Brigitte Jamart-Grégoire *

Tetrahedron: Asymmetry 20 (2009) 1809



Isopropyl (3S)-3-[2-(benzyloxycarbonyl)-(tert-butyl-oxycarbonyl)pyrazolidine]-carboxylate

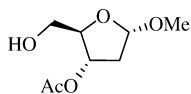
$$[\alpha]_D^{22} = -12.94 \text{ (c 0.850, EtOH)}$$

Source of chirality: (R)- α -hydroxy- γ -butyrolactone

Absolute configuration: (3S)

Esteban D. Gudiño, Adolfo M. Iribarren, Luis E. Iglesias *

Tetrahedron: Asymmetry 20 (2009) 1813



(1S,3S,4R)-Methyl 3-O-acetyl-2-deoxy- α -D-ribofuranoside

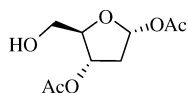
$$[\alpha]_D^{20} = +129.4 \text{ (c 0.06, CH}_3\text{CH}_2\text{OH)}$$

Source of chirality: 2-deoxy-D-ribose; enzymatic alcoholysis

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

Esteban D. Gudiño, Adolfo M. Iribarren, Luis E. Iglesias *

Tetrahedron: Asymmetry 20 (2009) 1813



(1R,3S,4R)-1,3-Di-O-acetyl-2-deoxy- α -D-ribofuranose

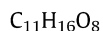
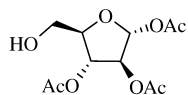
$$[\alpha]_D^{20} = +89.4 \text{ (c 0.04, CH}_3\text{CH}_2\text{OH)}$$

Source of chirality: 2-deoxy-D-ribose; enzymatic alcoholysis

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

Esteban D. Gudiño, Adolfo M. Iribarren, Luis E. Iglesias *

Tetrahedron: Asymmetry 20 (2009) 1813



(1R,2S,3R,4R)-1,2,3-Tri-O-acetyl- α -D-arabinofuranose

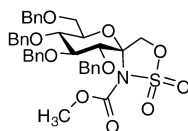
$$[\alpha]_D^{20} = -13.3 \text{ (c 0.12, CH}_3\text{CH}_2\text{OH)}$$

Source of chirality: D-arabinose; enzymatic alcoholysis

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

Mahmoud Bentifa, Miklos De Kiss, Maria Isabel Garcia-Moreno, Carmen Ortiz Mellet,
David Gueyrard *, Anne Wadouachi *

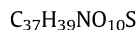
Tetrahedron: Asymmetry 20 (2009) 1817



$$[\alpha]_D^{20} = -8 \text{ (c 0.1, CHCl}_3\text{)}$$

Source of chirality: D-glucose

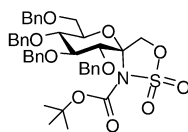
Absolute configuration: (1S,2R,3S,4R,5R)



(5S,7R,8R,9S,10R)-8,9,10-Tribenzyloxy-7-benzyloxy)methyl-1-methoxycarbonyl-3,6-dioxo-2-thia-1-azaspiro[4.5]decan-2,2-dioxide

Mahmoud Bentifa, Miklos De Kiss, Maria Isabel Garcia-Moreno, Carmen Ortiz Mellet,
David Gueyrard *, Anne Wadouachi *

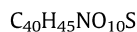
Tetrahedron: Asymmetry 20 (2009) 1817



$$[\alpha]_D^{20} = +30 \text{ (c 0.1, CHCl}_3\text{)}$$

Source of chirality: D-glucose

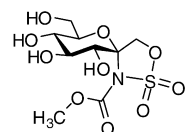
Absolute configuration: (5S,7R,8R,9S,10R)



(5S,7R,8R,9S,10R)-8,9,10-Tribenzyloxy-7-benzyloxymethyl-1-tert-butoxycarbonyl-3,6-dioxo-2-thia-1-azaspiro[4.5]decan-2,2-dioxide

Mahmoud Bentifa, Miklos De Kiss, Maria Isabel Garcia-Moreno, Carmen Ortiz Mellet,
David Gueyrard *, Anne Wadouachi *

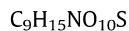
Tetrahedron: Asymmetry 20 (2009) 1817



$$[\alpha]_D^{20} = +19 \text{ (c 0.1, MeOH)}$$

Source of chirality: D-glucose

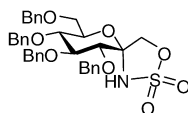
Absolute configuration: (5S,7R,8R,9S,10R)



(5S,7R,8R,9S,10R)-8,9,10-Trihydroxy-7-hydroxymethyl-1-methoxycarbonyl-3,6-dioxo-2-thia-1-azaspiro[4.5]decan-2,2-dioxide

Mahmoud Bentifa, Miklos De Kiss, Maria Isabel Garcia-Moreno, Carmen Ortiz Mellet,
David Gueyrard *, Anne Wadouachi *

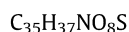
Tetrahedron: Asymmetry 20 (2009) 1817



$$[\alpha]_D^{20} = -18 \text{ (c 0.1, CHCl}_3\text{)}$$

Source of chirality: D-glucose

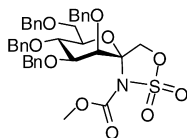
Absolute configuration: (5S,7R,8R,9S,10S)



(5S,7R,8R,9S,10S)-8,9,10-Tribenzyloxy-7-benzyloxymethyl-3,6-dioxo-2-thia-1-azaspiro[4.5]decan-2,2-dioxide

Mahmoud Bentlifa, Miklos De Kiss, Maria Isabel Garcia-Moreno, Carmen Ortiz Mellet, David Gueyrard*, Anne Wadouachi*

Tetrahedron: Asymmetry 20 (2009) 1817



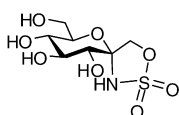
$[\alpha]_D^{20} = +36$ (c 0.1, CHCl₃)
Source of chirality: D-mannose
Absolute configuration: (5S,7R,8R,9S,10S)

C₃₇H₃₉NO₁₀S

(5S,7R,8R,9S,10S)-8,9,10-Tribenzyloxy-7-benzyloxymethyl-1-methoxycarbonyl-3,6-dioxo-2-thia-1-azaspiro[4.5]decan-2,2-dioxide

Mahmoud Bentlifa, Miklos De Kiss, Maria Isabel Garcia-Moreno, Carmen Ortiz Mellet, David Gueyrard*, Anne Wadouachi*

Tetrahedron: Asymmetry 20 (2009) 1817



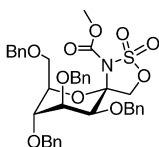
$[\alpha]_D^{20} = +26$ (c 0.1, MeOH)
Source of chirality: D-glucose
Absolute configuration: (5S,7R,8R,9S,10R)

C₇H₁₃NO₈S

(5S,7R,8R,9S,10R)-8,9,10-Trihydroxy-7-hydroxymethyl-3,6-dioxo-2-thia-1-azaspiro[4.5]decan-2,2-dioxide

Mahmoud Bentlifa, Miklos De Kiss, Maria Isabel Garcia-Moreno, Carmen Ortiz Mellet, David Gueyrard*, Anne Wadouachi*

Tetrahedron: Asymmetry 20 (2009) 1817



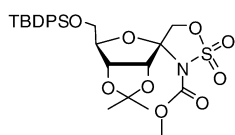
$[\alpha]_D^{20} = +12$ (c 0.1, CHCl₃)
Source of chirality: D-mannose
Absolute configuration: (5R,7R,8R,9S,10S)

C₃₇H₃₉NO₁₀S

(5R,7R,8R,9S,10S)-8,9,10-Tribenzyloxy-7-benzyloxymethyl-1-methoxycarbonyl-3,6-dioxo-2-thia-1-azaspiro[4.5]decan-2,2-dioxide

Mahmoud Bentlifa, Miklos De Kiss, Maria Isabel Garcia-Moreno, Carmen Ortiz Mellet, David Gueyrard*, Anne Wadouachi*

Tetrahedron: Asymmetry 20 (2009) 1817



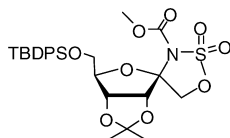
$[\alpha]_D^{20} = -28$ (c 0.1, CHCl₃)
Source of chirality: D-ribose
Absolute configuration: (5S,7R,8S,9S)

C₂₇H₃₅NO₅SSi

(5S,7R,8S,9S)-8,9-Dimethylmethylenedioxy-7-tert-butylidiphenylsilyloxymethyl-1-methoxycarbonyl-3,6-dioxo-2-thia-1-azaspiro[4.4]nonan-2,2-dioxide

Mahmoud Bentifa, Miklos De Kiss, Maria Isabel Garcia-Moreno, Carmen Ortiz Mellet,
David Gueyrard *, Anne Wadouachi *

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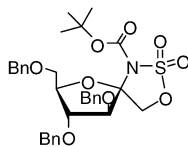
$C_{27}H_{35}NO_5Si$

(5R,7R,8S,9S)-8,9-Dimethylmethylenedioxy-7-tert-butylidiphenylsilyloxymethyl-1-methoxycarbonyl-3,6-dioxo-2-thia-1-azaspiro[4.4]nonan-2,2-dioxide

$[\alpha]_D^{20} = -56$ (c 0.1, $CHCl_3$)
Source of chirality: D-ribose
Absolute configuration: (5R,7R,8S,9S)

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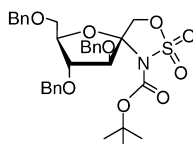
$C_{32}H_{37}NO_9S$

(5R,7R,8S,9R)-8,9-Dibenzoyloxy-7-benzyloxymethyl-1-tertbutoxycarbonyl-3,6-dioxo-2-thia-1-azaspiro[4.4]nonan-2,2-dioxide

$[\alpha]_D^{20} = +12$ (c 0.1, $CHCl_3$)
Source of chirality: D-arabinose
Absolute configuration: (5R,7R,8S,9R)

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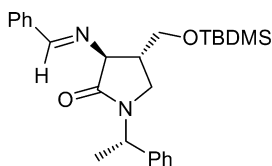
$C_{32}H_{37}NO_9S$

(5S,7R,8S,9R)-8,9-Dibenzoyloxy-7-benzyloxymethyl-1-tertbutoxycarbonyl-3,6-dioxo-2-thia-1-azaspiro[4.4]nonan-2,2-dioxide

$[\alpha]_D^{20} = +36$ (c 0.1, $CHCl_3$)
Source of chirality: D-arabinose
Absolute configuration: (5S,7R,8S,9R)

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Federica Sgolastra

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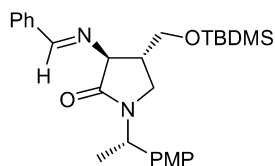
$C_{26}H_{36}N_2O_2Si$

(3S,4R,1'S)-3-Benzylideneamino-4-t-butylidimethylsilyloxymethyl-1-(1'-phenylethyl)pyrrolidin-2-one

Ee >98%
 $[\alpha]_D = -218.4$ (c 1.19, $CHCl_3$)
Source of chirality: (S)-phenylethylamine
Absolute configuration: 3S,4R,1'S

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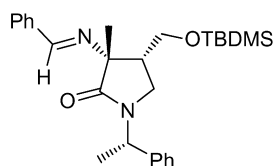
Ee >98%
[α]_D = -230.7 (c 1.04, CHCl₃)
Source of chirality: (S)-4-methoxyphenylethylamine
Absolute configuration: 3S,4R,1'S

C₂₇H₃₈N₂O₃Si

(3S,4R,1'S)-3-Benzylideneamino-4-[(t-butyl dimethylsilyloxy)methyl]-1-[1'-(4-methoxyphenyl)ethyl]pyrrolidin-2-one

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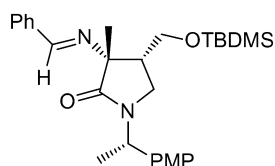
Ee >98%
[α]_D = -6.7 (c 0.74, CHCl₃)
Source of chirality: (S)-phenylethylamine
Absolute configuration: 3R,4R,1'S

C₂₇H₃₈N₂O₂Si

(3R,4R,1'S)-3-Benzylideneamino-4-t-butyl dimethylsilyloxymethyl-3-methyl-1-(1'-phenylethyl)pyrrolidin-2-one

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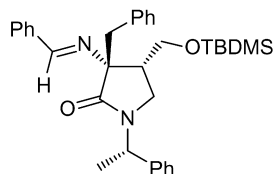
Ee >98%
[α]_D = -17.5 (c 1.14, CHCl₃)
Source of chirality: (S)-4-methoxyphenylethylamine
Absolute configuration: 3R,4R,1'S

C₂₈H₄₀N₂O₃Si

(3R,4R,1'S)-3-Benzylideneamino-4-t-butyl dimethylsilyloxymethyl-1-[1'-(4-methoxyphenyl)ethyl]-3-methylpyrrolidin-2-one

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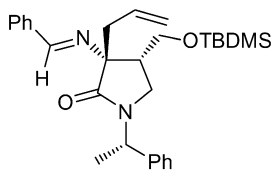
Ee >98%
[α]_D = -22.7 (c 1.25, CHCl₃)
Source of chirality: (S)-phenylethylamine
Absolute configuration: 3R,4R,1'S

C₃₃H₄₂N₂O₂Si

(3R,4R,1'S)-3-Benzyl-3-benzylideneamino-4-t-butyl dimethylsilyloxymethyl-1-(1'-phenylethyl)pyrrolidin-2-one

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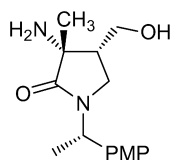
Ee >98%
[α]_D = -31.7 (c 1.5, CHCl₃)
Source of chirality: (S)-phenylethylamine
Absolute configuration: 3R,4R,1'S

C₂₉H₄₀N₂O₂Si

(3R,4R,1'S)-3-Allyl-3-benzylideneamino-4-*t*-butyldimethylsilyloxymethyl-1-(1'-phenylethyl)pyrrolidin-2-one

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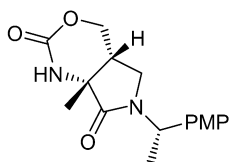
Ee >98%
[α]_D = -110.0 (c 0.54, CHCl₃)
Source of chirality: (S)-4-methoxyphenylethylamine
Absolute configuration: 3R,4R,1'S

C₁₅H₂₂N₂O₃

(3R,4R,1'S)-3-Amino-4-hydroxymethyl-1-[1'-(4-methoxyphenyl)ethyl]-3-methylpyrrolidin-2-one

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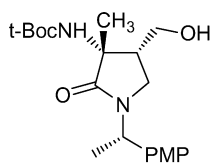
Ee >98%
[α]_D = -108.2 (c 1.04, CHCl₃)
Source of chirality: (S)-4-methoxyphenylethylamine
Absolute configuration: 4aR,7aR,1'S

C₁₆H₂₀N₂O₄

(4aR,7aR,1'S)-6-[1'-(4-Methoxyphenyl)ethyl]-7a-methylhexahydropyrrolo[3,4-d][1,3]oxazine-2,7-dione

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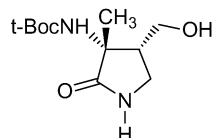
Ee >98%
[α]_D = -125.0 (c 1.16, CHCl₃)
Source of chirality: (S)-4-methoxyphenylethylamine
Absolute configuration: 3R,4R,1'S

C₂₀H₃₀N₂O₅

(3R,4R,1'S)-3-*t*-Butoxycarbonylamino-4-hydroxymethyl-1-[1'-(4-methoxyphenyl)ethyl]-3-methylpyrrolidin-2-one

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$C_{11}H_{20}N_2O_4$

(3R,4R)-3-*t*-Butoxycarbonylamino-4-hydroxymethyl-3-methylpyrrolidin-2-one

Ee >98%

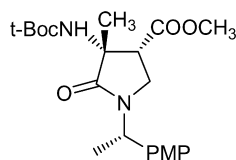
$[\alpha]_D = -50.0$ (c 0.6, $CHCl_3$)

Source of chirality: (S)-4-methoxyphenylethylamine

Absolute configuration: 3R,4R

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$C_{21}H_{30}N_2O_6$

(3R,4R,1'S)-Methyl 4-*t*-butoxycarbonylamino-1-[1'-(4-methoxyphenyl)ethyl]-4-methyl-5-oxopyrrolidine-3-carboxylate

Ee >98%

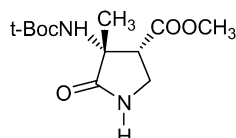
$[\alpha]_D = -104.5$ (c 1.32, $CHCl_3$)

Source of chirality: (S)-4-methoxyphenylethylamine

Absolute configuration: 3R,4R,1'S

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$C_{12}H_{20}N_2O_5$

(3R,4R)-Methyl 4-*t*-butoxycarbonylamino-4-methyl-5-oxopyrrolidine-3-carboxylate

Ee >98%

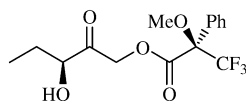
$[\alpha]_D = -43.8$ (c 0.57, $CHCl_3$)

Source of chirality: (S)-4-methoxyphenylethylamine

Absolute configuration: 3R,4R

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$C_{15}H_{17}F_3O_5$

(2R,3'S) 3,3,3-Trifluoro-2-methoxy-2-phenylpropionic acid 3'-hydroxy-2'-oxo-pentyl ester

De = 55% [(2R,3'S)-major isomer, (2R,3'R) present]

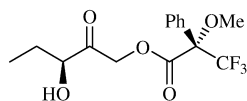
$[\alpha]_D^{20} = +13.3$ (c 0.15, $CHCl_3$)

Source of chirality: biocatalysis

Absolute configuration: (2R,3'S)

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$C_{15}H_{17}F_3O_5$

(2S,3'S) 3,3,3-Trifluoro-2-methoxy-2-phenylpropionic acid 3'-hydroxy-2'-oxo-pentyl ester

De = 55% [(2S,3'S)-major isomer, (2S,3'R) present]

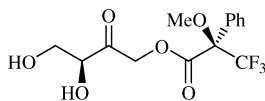
$[\alpha]_D^{20} = -37.0$ (c 0.1, $CHCl_3$)

Source of chirality: biocatalysis

Absolute configuration: (2S,3'S)

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$C_{14}H_{15}F_3O_6$

(2R,3'S) 3,3,3-Trifluoro-2-methoxy-2-phenylpropionic acid 3',4'-dihydroxy-2'-oxo-butyl ester

De = >95% (2R,3'S)

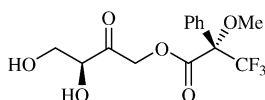
$[\alpha]_D^{20} = +10.2$ (c 0.4, $CHCl_3$)

Source of chirality: biocatalysis

Absolute configuration: (2R,3'S)

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$C_{14}H_{15}F_3O_6$

(2S,3'S) 3,3,3-Trifluoro-2-methoxy-2-phenylpropionic acid 3',4'-dihydroxy-2'-oxo-butyl ester

De = >95% (2S,3'S)

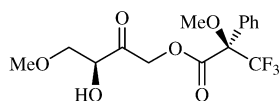
$[\alpha]_D^{20} = -14.4$ (c 0.5, $CHCl_3$)

Source of chirality: biocatalysis

Absolute configuration: (2S,3'S)

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$C_{15}H_{17}F_3O_6$

(2R,3'S) 3,3,3-Trifluoro-2-methoxy-2-phenylpropionic acid 3'-hydroxy-4'-methoxy-2'-oxo-butyl ester

De = 57% [(2R,3'S)-major isomer, (2R,3'R) present]

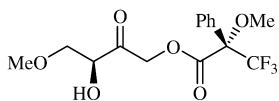
$[\alpha]_D^{20} = +23.2$ (c 0.25, $CHCl_3$)

Source of chirality: biocatalysis

Absolute configuration: (2R,3'S)

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$C_{15}H_{17}F_3O_6$

(2*S*,3'*S*) 3,3,3-Trifluoro-2-methoxy-2-phenylpropionic acid 3'-hydroxy-4'-methoxy-2'-oxo-butyl ester

De = 57% [(2*S*,3'*S*)-major isomer, (2*S*,3'*R*) present]

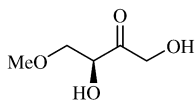
$[\alpha]_D^{20} = -10.6$ (c 0.25, $CHCl_3$)

Source of chirality: biocatalysis

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

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$C_5H_{10}O_4$

(3*S*)-1,3-Dihydroxy-4-methoxybutan-2-one

Ee = 57% [(3*S*)-major isomer]

$[\alpha]_D^{20} = +2.0$ (c 2.0, $CHCl_3$)

Source of chirality: biocatalysis

Absolute configuration: (3*S*)